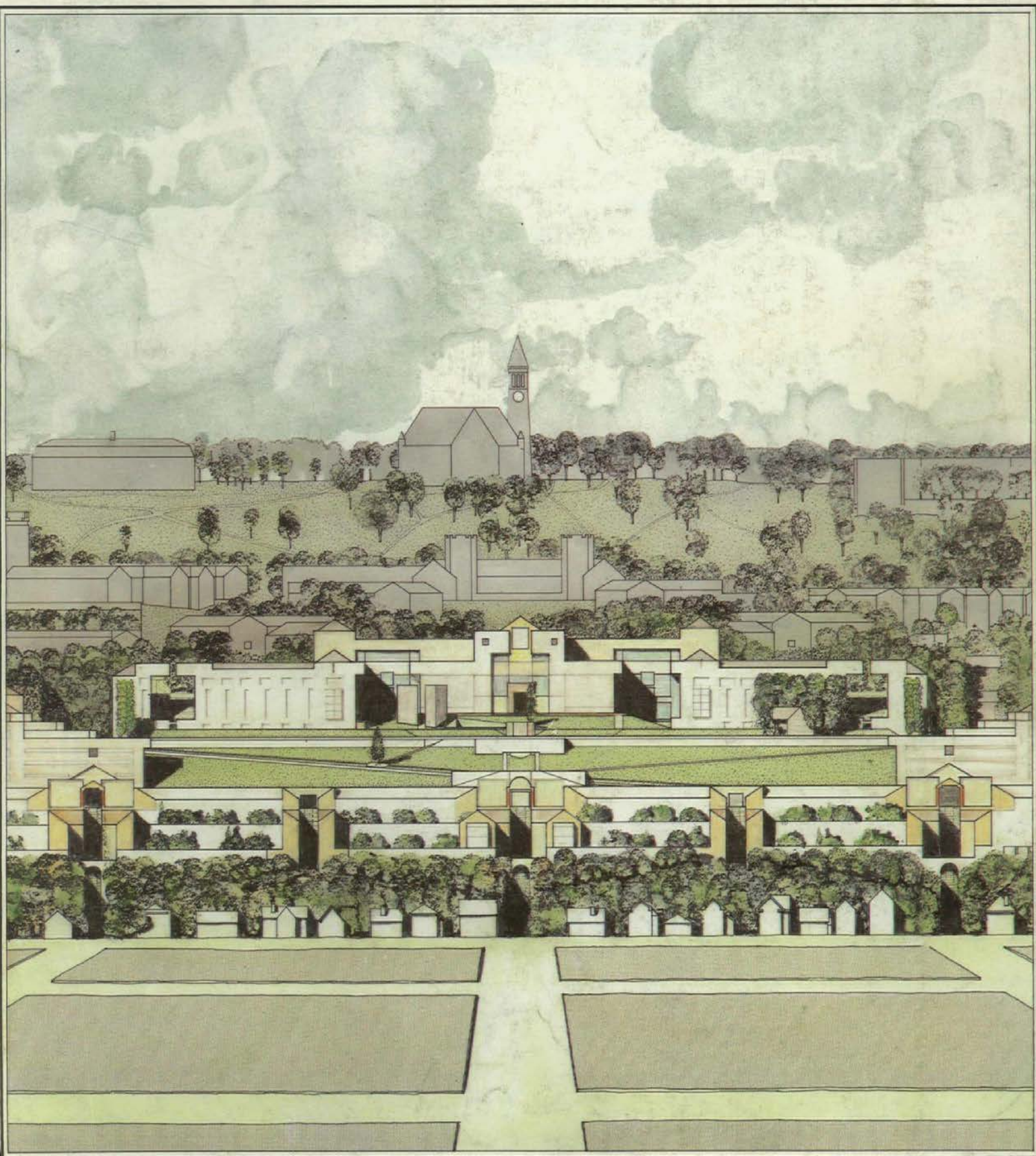
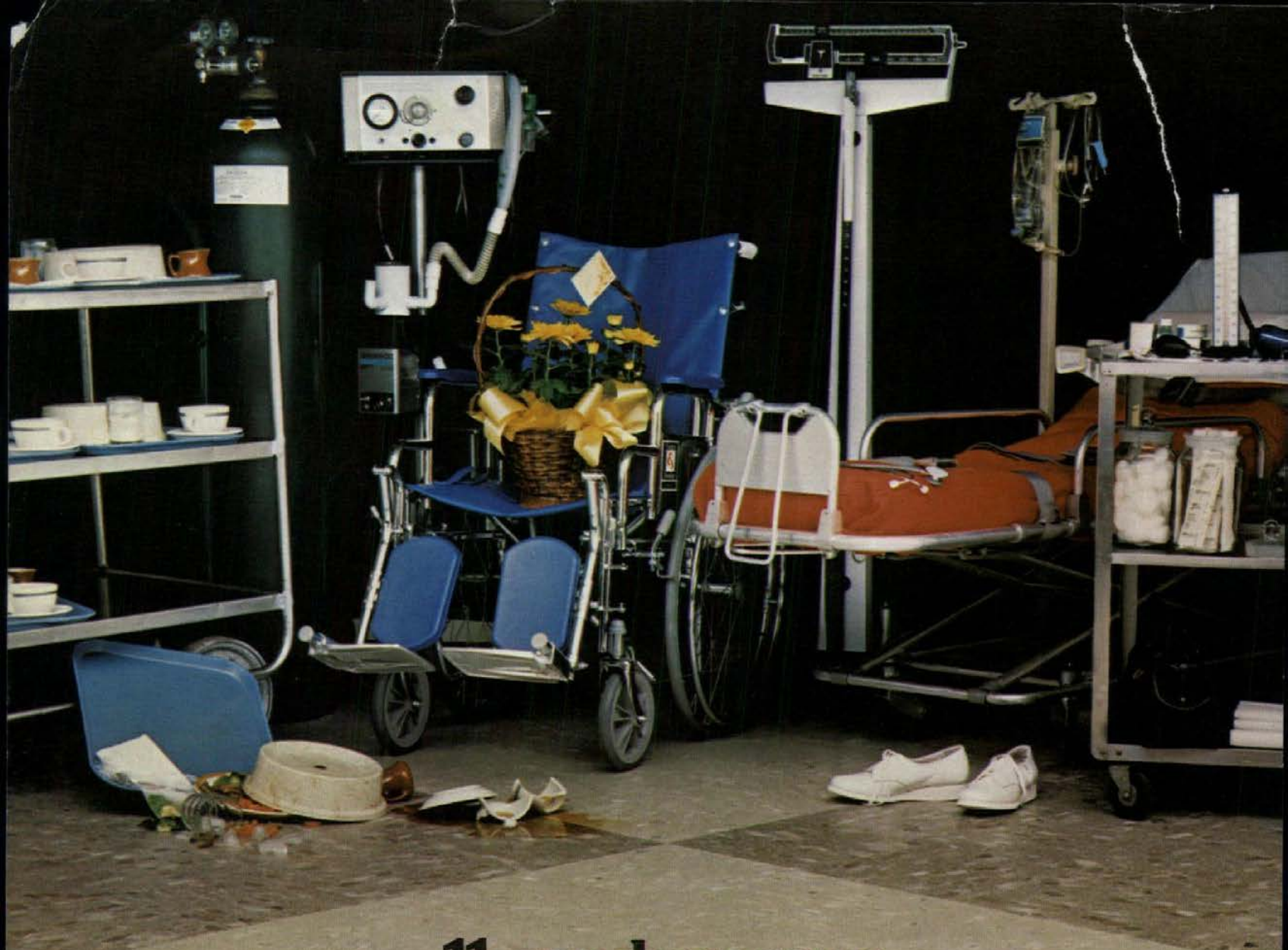


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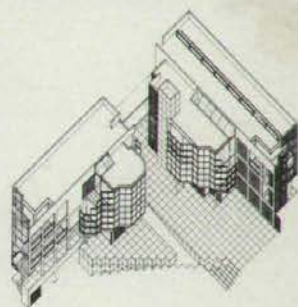
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Entryways

In a competition with about 1000 entries, how can you make one entry instantly memorable? Some of the cleverest ways are good only for laughs—but welcome laughs.

In the feature section of this issue (starting on p. 87) you will find the selections and the observations of the 28th P/A Awards jury. Their findings are the principal substance of this issue, and I suggest you turn directly to them—if you haven't already. When you have absorbed all of that—or if you need a refreshing pause—turn back to this page to read what some of the *participants* in this competition had to say for themselves.

"Yeah, this is a real project. Honest," pleads one anonymous entrant in his introductory page. After describing a highly unusual "Fun House" (Honest) for a client who owns, among other things, about 80 dogs, the competitor sums up the project as "an unusual opportunity for both an eccentric client and an eccentric architect. A P/A Award would be a confirmation of the value of that eccentricity and a boost in the direction of construction." Well, good luck, nonetheless.

"The initial intent of this project is to design and build a smaller house for my mother," begins another entry. After a few deftly phrased paragraphs referring to icons, to the American paradox of stability vs mobility, to Corbu's Citrohan house, and much more, the synopsis concludes: "I believe this design deserves recognition in that it addresses important architectural issues and provides a sense of home and shelter to the owner, whose beliefs about architecture are generally incompatible with mine." Forgive me, Mother, but this entrant deserves our sympathy.

Sometimes it's not what you say, but how you organize it ("structure it?"). One competitor thoughtfully provided the jury with several complementary sets of material, identified thus: Romantic drawings, Technical drawings, Cerebral drawings, Early sketches, Development sketches, Late sketches, Model. This was actually a very sound idea—certainly no mere joke—although it was obviously done with humor.

Then there were the sight gags. There was the one entry (only one out of 1049!) with a very convincing P/A cover. Between the accurately executed "January 1981" at the top and the "28th Annual P/A Awards" at the bottom was a nicely framed, graphically abstract view of the proposal. The competitors foresaw just how P/A would have handled the cover, if only they had taken a First Award.

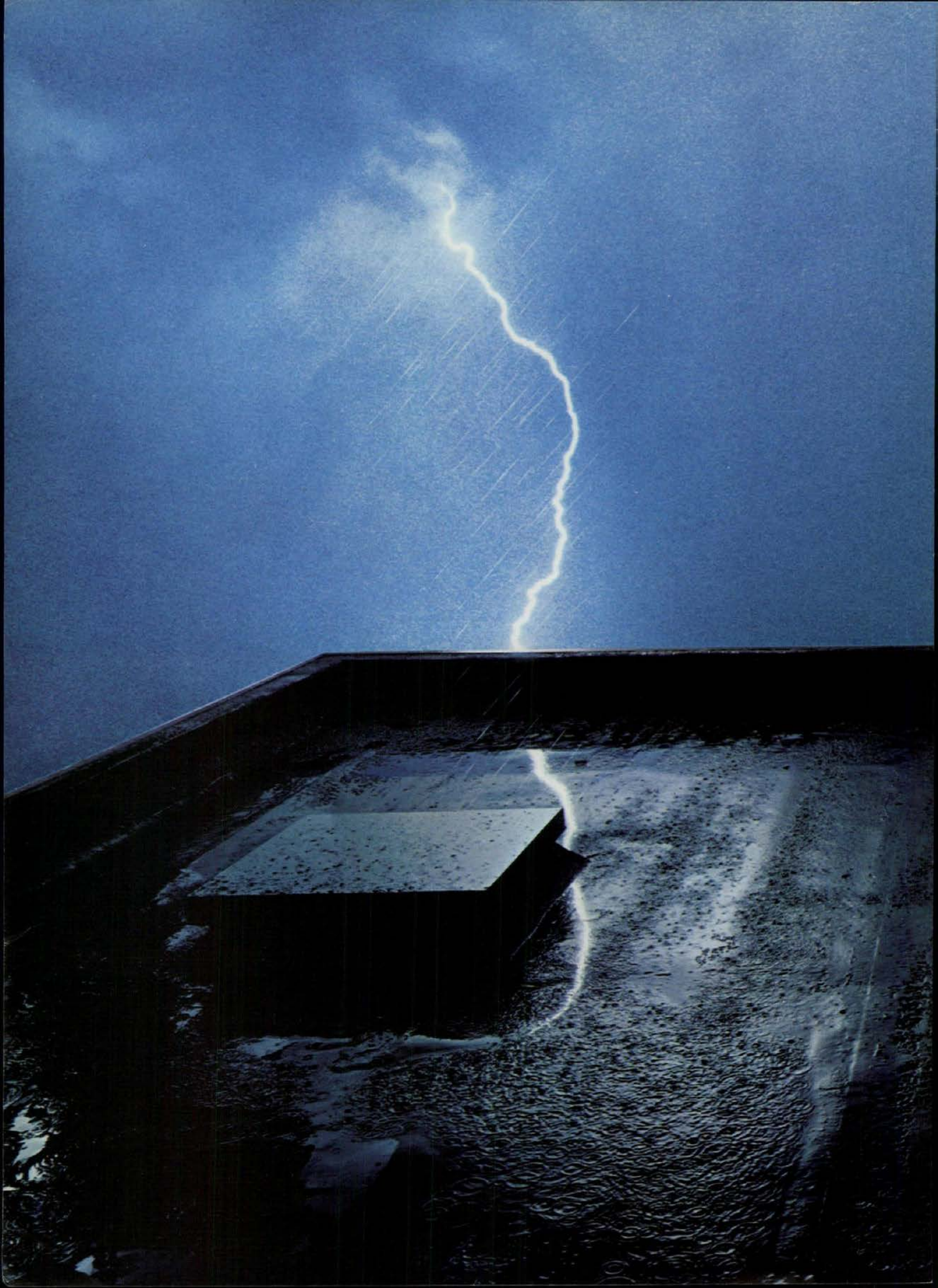
One opening synopsis page was a graphical re-creation of a characteristic P/A page. The heading "The small building artistically con-

sidered" was reproduced directly from the introduction to our July 1980 issue. The "deck" caught the cadence—if not the profound content—of the typical P/A model: "Here, as in the June 1979 issue, P/A examines a small building of exceptional quality." (We had featured small buildings in June 1979, as well.) The text, set in proper Baskerville type, at P/A width and spacing, describes a 12' x 12' x 12' glass cube with various aesthetically rarefied embellishments. The jury concluded this was not a put-on, but it was not a winner either, in their view.

One firm with overabundant imagination sent along a three-dimensional memento: a metaphor for their design concept in the form of a rather substantial geode (about 6 in. across). Their proposed building, like the geode, was said to reveal the crystalline geometric structure that gives order to the universe—and to the subcategory of architectural space, as well. The geode, which would be classified as a "dimensional mailing" in publicity terminology, could not, of course, be submitted to the jury; it was not "firmly bound" to the rest of the entry. It has become a familiar object in our office, but it was surely not a gift and must be returned one of these days.

Such attention-grabbing gimmicks seem to do nothing whatsoever toward winning recognition in this program. In fact, by arousing the jurors' doubts, they virtually *preclude* recognition. But during those two strenuous days of judging, they do serve as reminders that all of the submissions come from real people, with ambitions and anxieties, which are usually masked by professional conventions. They give the jury an opportunity to have a few laughs *with* those who entered, as against guilt-tinged laughs at their expense. We need reminders that judges and competitors alike are part of a process that cannot be utterly devoid of humor.

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Views

Tendenza, Dead-Enza

The most important difference of effect that I can distinguish between the Architecture of the Razzionale (PA Cover Oct. 1980) and the work of earlier fascists is that in the latter instance it was only the outsiders who were intentionally dehumanized and sent to the gas chamber while in the case of the former, no doubt abiding by the universal and populist exhortations of their rhetoric, we all get to participate equally in the "poetics of finality."

Once again we have evidence of Modern Architecture's persistent failure to discriminate between the outside and inside, and this time the repercussions are especially deadly.

It's true that in the scenario presented by the Tendenza we will undoubtedly arrive upon the universal brotherhood, even if it means that we are no longer human or even alive for that matter.

If I knew this was coming I would have dropped out in the sixties along with the metabolists while I still had a chance of hanging on as an organism.

Leonard Bakker
Graduate School of
Environmental Design
University of California
Berkeley

[This letter is representative of a type of

reaction against Tendenza. P/A wishes specifically to dissociate itself from any implicit connection between the architects involved and fascists or "the gas chamber." Those of you who know the School of Environmental Design building at Berkeley are encouraged to consider whether architects' democratic convictions are any assurance of humane buildings.—Editors]

The link between Rossi's Teatro del Mondo and the Armenian Church of Aghtamar in Van (10th Century) is obvious. Rossi merely borrowed its outlines, which provided him the firm platform to make his leap of the imagination, originality, and creativity.

This is not an exceptional case. All works of architecture link them to their predecessors. Our respect to Rossi for his original way of bringing an Early Christian basilica architecture, traditionally Armenian, to his work.

D. Basmadjian, A.M.I.E.T.
Long Beach, Ca

Respect for older buildings

Your November issue on "Remodeling and Reuse" is welcomed by those of us who have long been concerned with questions of the best means of utilizing our huge stock of good existing structures. Particularly welcome are the critical evaluations of what has worked, what hasn't, and why. Too often the existing building is regarded as an embarrassing "given" to be overcome by pizzazz, muti-

lation, or coverup. What is needed is simple respect for the work that exists. "Respect" does not mean slavish imitation, but simply harmony and good manners, as some of the projects you include illustrate. With 30 to 40 percent of all building projects now involving existing structures (not to mention the surrounding structures), we all need to learn "contextualism" before our stock of good existing buildings is overcome by architectural anarchy. This issue is a good step in illustrating the problem, and some solutions.

Harvie P. Jones, AIA
Huntsville, AL

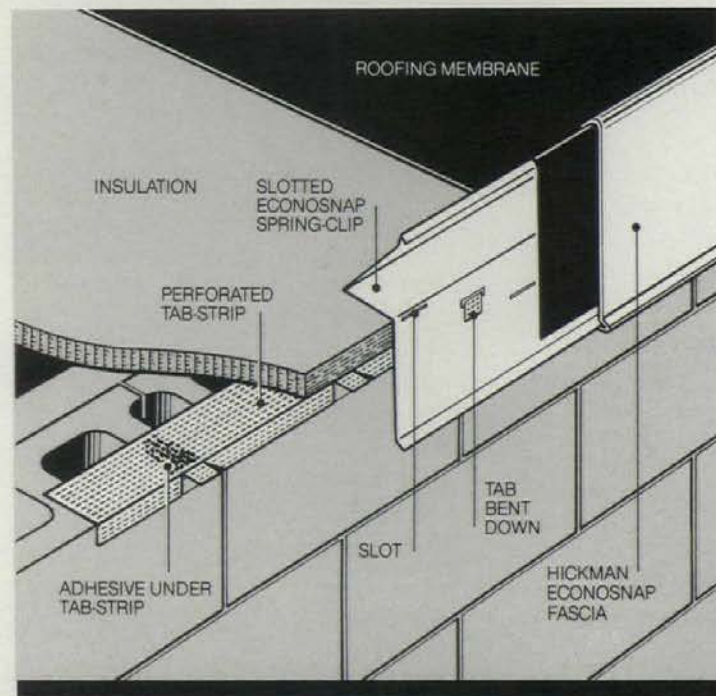
Another case for selective specs

As an avid reader and subscriber of your publication, I find Walter Rosenfeld in his "Specifications Clinic" usually accurate as to content and on the side of the creative professional as to spirit. However, he appears somewhat off the mark in the November 1980 issue.

No article on "The Unique Product and Public Bidding Laws" can be considered complete without reference to the landmark case in the U.S. District Court in South Carolina under the heading of Kendall Elevator Company, Inc. v. LBC & W Associates of South Carolina, Inc. (civil action 72-193, October 1972). This case upheld the right of an architect to specify selectively. In the Federal First Circuit Court, a decision with even more far-reaching ram-

[Views continued on page 14]

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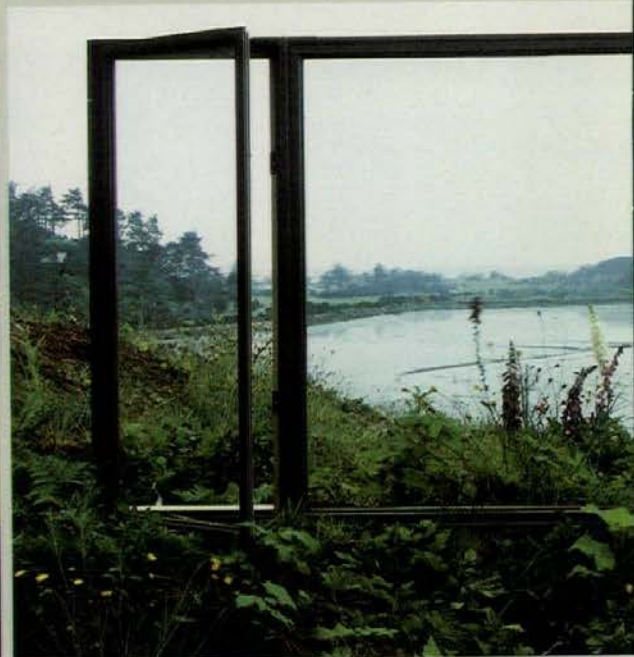
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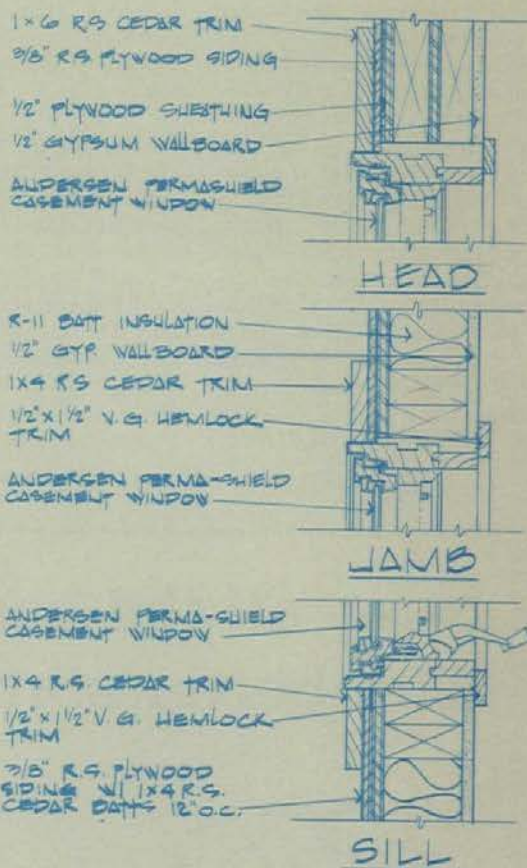
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ifications to the knowing, caring specifier was handed down. In the case of *Whitten Corporation v. Paddock, Inc.* (4/12/74), the U.S. Supreme Court subsequently rejected further appeal and review, thus supporting the final decision of the Federal Circuit Court. This decision was unique in that it defines the specifier's clear authority at the Federal Court level whereas relevant previous decisions had been at lower court levels. In substance, four major judgments regarding specifications were brought forth. They are:

1 The court ruled that a proprietary specification is not a violation of anti-trust law. Further, the court stated that trained professionals make informed judgments on the systems which best serve their clients' needs.

2 The court ruled that other suppliers can qualify as "or equal" only when the specifier chooses to waive specifications or permits the supplier to bid also.

3 The court stated that the specifier "... will waive specifications in order to obtain a better product for his client." The implication here is that the contractor cannot make a specifications substitution judgment. It is stated that only the specifier can ultimately decide that a better product is available and change the grant originally specified in his client's best interest.

4 The court concluded: "The burden

is on the supplier who has not been specified to convince (the specifier) that his product is equal for the purpose of a particular project."

It would appear that the architect not only can, but has an obligation to, specify that product which best suits his client's needs and purposes irrespective of whether another such product exists. Obviously, the client's budget is considered, and proper restraints and controls such as guaranteed maximum pricing and the like are useful tools in meeting a client's overall needs.

I take no issue with Mr. Rosenfeld's article, but merely wish to point out that the subject is incompletely dealt with at best when the substance of the above-referenced court cases is omitted from the text of an article on such a controversial subject.

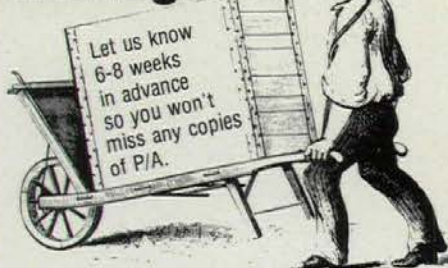
Gilbert L. Phillips
President
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Under fabric roofs

It may be a little late but I would like to express my appreciation for the fine article on fabric structures in the June 1980 issue. As one who has lived and worked under, and has helped build and experiment with fabric roofs since the 1940s, it was good to read about the current state of the art.

Charles Montooth
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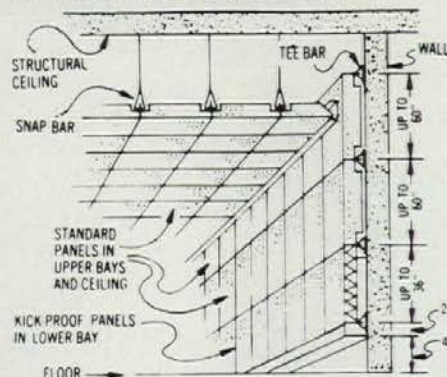
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This competition will recognize outstanding furniture and lighting design proposals not yet connected with a particular manufacturer. It is intended to give the design profession a forum to express ideas about the next generation of furniture design. Designers are encouraged to consider the aesthetic and ideological implications for furniture design implied by the current concerns within architecture and other design disciplines. Physical feasibility must be considered, but the design need not be constrained by existing production or marketing practices.

Winning projects will be published in the May issue of P/A and displayed at NEOCON 13, the annual interior design products show at Chicago's Merchandise Mart, June 16-19, 1981. Awards will be presented to winners in an evening program attended by press, designers, and NEOCON manufacturers. A traveling exhibit of winning projects to major cities is also planned.

Deadline is January 26, 1981.

Further information and entry forms in P/A, Dec. 1980 (pp. 15-16.), Nov. 1980 (pp. 21-22), and Oct. 1980 (pp. 15-16) or call Furniture Competition, Progressive Architecture, 203-348-7531.

International Conceptual Furniture Competition

sponsored by **Progressive Architecture**
winners to be displayed at **NEOCON 13**
June 16-19, 1981
The Merchandise Mart, Chicago

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$\frac{1}{4}$ -ton of air conditioning per hour.
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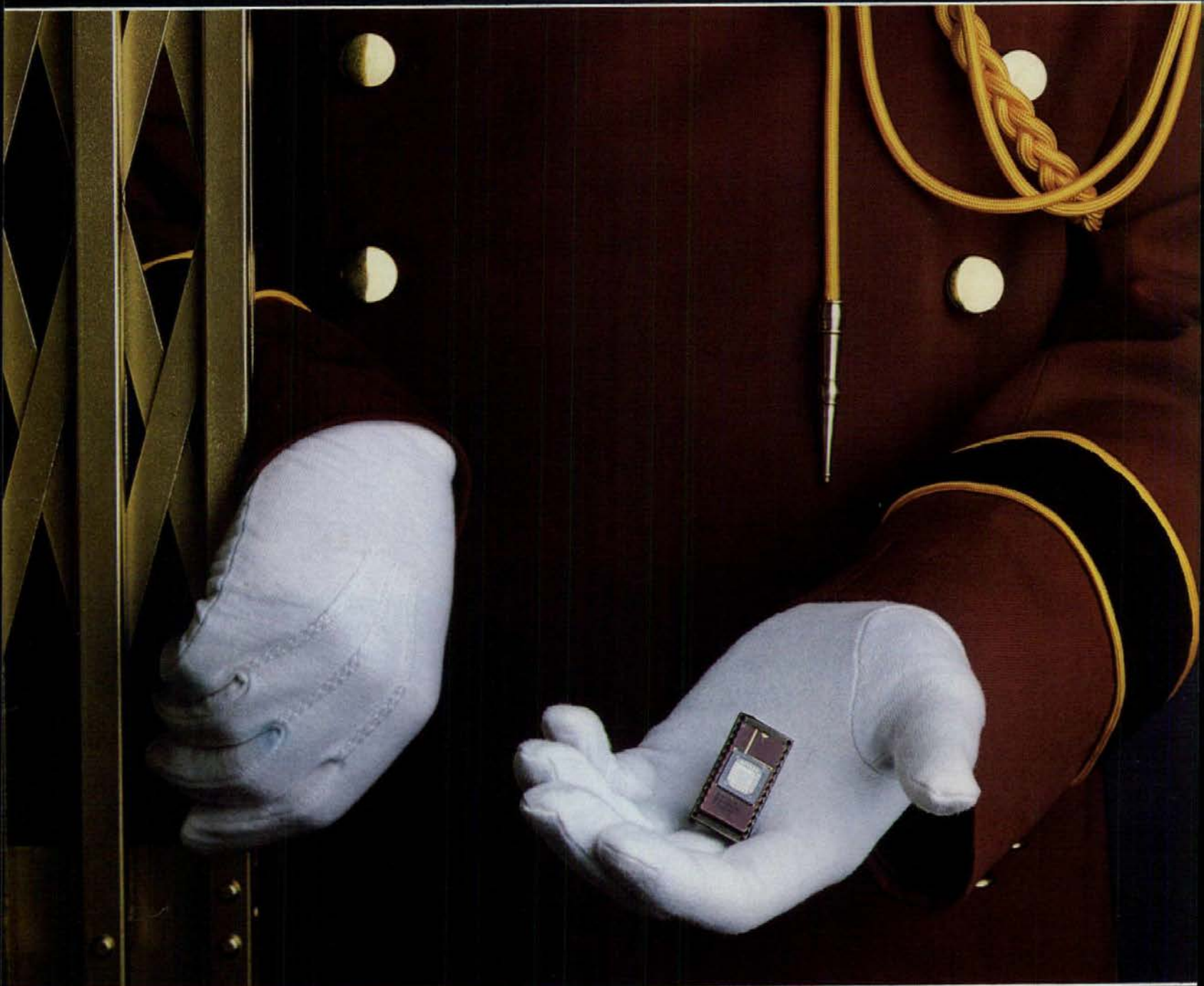
Twelve years ago, Schindler Haughton replaced mechanical programmers with integrated circuits. The equipment was so advanced that this electronic chip could analyze more than 27,000 possible service combinations (and select the best one) in 10 milliseconds. It took our competitors a decade to catch up. Now we have even more advanced microprocessing equipment. It's the best of its kind.

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1980

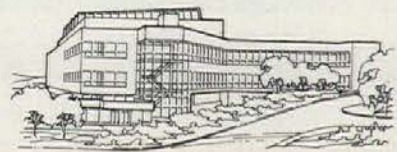
OWENS-CORNING ENERGY CONSERVATION AWARD WINNERS.



OFFICE



WAREHOUSE



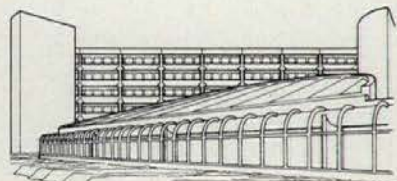
LABORATORY



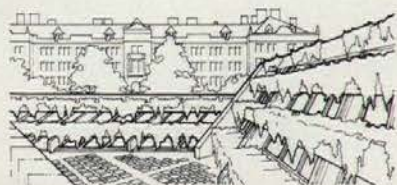
PRISON



HEADQUARTERS



OFFICE



COLLEGE



• The ninth annual Owens-Corning Energy Conservation Awards honor those who have proved, once again, that there are always new, ingenious and elegant ways to conserve energy.

• 1980 Judges:
C. William Brubaker, FAIA, Perkins & Will, Chicago, Ill., Ezra D. Ehrenkrantz, FAIA, The Ehrenkrantz Group, P.C., N.Y., N.Y., Masao Kinoshita, AIA, ASLA, AIP, Ohio State Univ., Columbus, Oh.

William J. Coad, PE, Charles J.R. McClure & Assoc., Inc., St. Louis, Mo., John K. Holton, AIA, PE, Office of Bldgs. Mgmt. GSA-PBS, Washington, D.C., Arthur E. Wheeler, PE, Henry Adams, Inc., Baltimore, Md.



WILLOW CREEK OFFICE BLDG./IDAHO FALLS, IDAHO

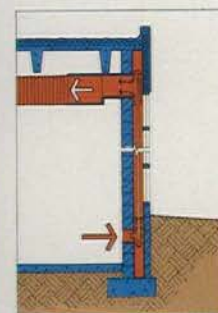
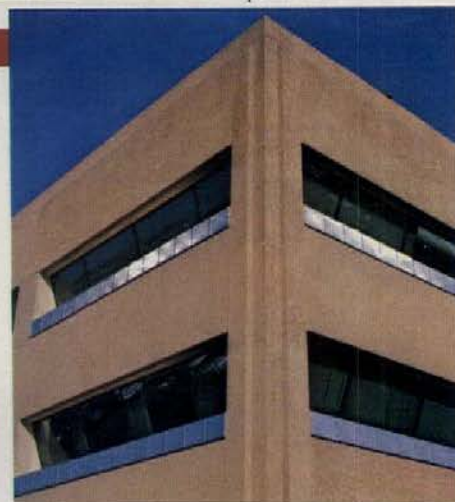
• *Architect, Engineers and Owner:*
Max Flatow, FAIA,
Pres., Flatow Moore
Bryan and Assoc.,
Frank Bridgers, PE, Prin.,
Bridgers & Paxton,
Consulting Engineers,
Albuquerque, N.M.
Ronald W. Kiehn, Gen.
Mgr., EG&G, Idaho, Inc.,

Idaho Falls, Id., Joseph
Lopez, PE, Prin., Uhl &
Lopez Engineers, Inc.,
Albuquerque, N.M.

• *Judges' comments:*
"In moving to a new
building twice the
size of their old one,
they reduced their
actual out-of-pocket
energy costs by 21.4

percent. And these are
real numbers—not
guesses. They used a very
efficient light source:
high pressure sodium
lighting./ A 200,000
gallon storage tank
saves the excess heat
generated during
the day to warm the
building at night."

• *Exterior:* Note the
angled windows with
stainless-steel window
sills that reflect diffused
light into the building
and eliminate the need
for artificial lighting
within 20 ft. of the
perimeter.



• *Cross section of the
modified Trombe wall:*
Sunlight passing through
windowed wall heats
stainless-steel collector
plate. Ductwork above
brings heated air back
into building.

SPORT OBERMEYER/ASPEN, COLORADO

• *Architects and
Engineer:*
Tim Hagman, Prin.,
Copland Hagman
Yaw Ltd, Aspen, Col.,
Bob Clarke, Prin.,
Solar Pathways Assoc.,
Glenwood Springs,
Col., Larry Yaw, Prin.,
Copland Hagman
Yaw Ltd, Aspen, Col.

• *Judges' comments:*
"What is attractive
here is that they took
a simple building—

the walls are concrete
blocks—and integrat-
ed a solar air-heating
system: a Trombe wall./
It is worked in very
well with the overall
appearance of the
building./ It's basically
an inexpensive
solution. A working,
economical use of
solar energy for ware-
house heating."

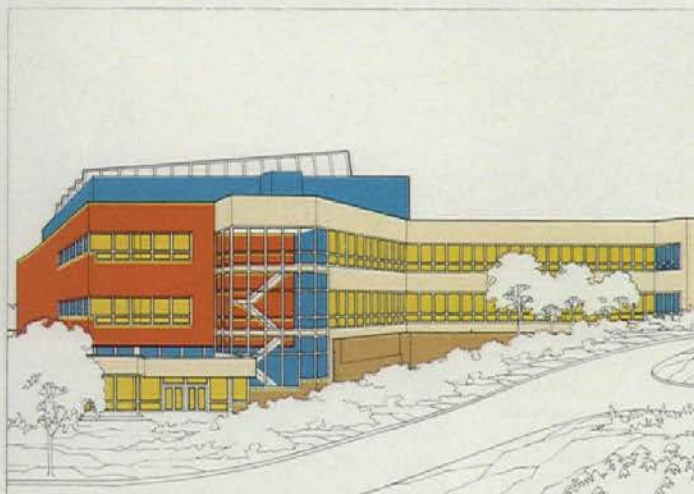
SMITHKLINE PHARMACEUTICAL RESEARCH LAB/UPPER MERION, PENNSYLVANIA

• *Engineer and Architects:* Russell M. Keeler, PE, Dir. Mech. Engineering, Louis deMoll, FAIA, Prin. and John B. Di Ilio,

RA, Proj. Designer, Ballinger, Philadelphia, Penna.
 • *Judges' comments:* "This is a laboratory with very demanding environmental criteria and intensive energy use. The designers have tried very hard—and succeeded—in recovering much of this energy. They've used special air-conditioning concepts, a high temperature heat pump and active solar

systems. They even have a system for reclaiming the heat from the water they use to wash down the cages. Many designers would have avoided this issue and wasted the heat. But they didn't here."

• *Architect's model:* Note how the glazed corridors light both the hallways and the interior offices. This saves energy by reducing the outside fenestration.



FEDERAL CORRECTIONAL INST/BASTROP, TEXAS



• *Architects and Engineer:* Franklin D. Lawyer, FAIA, Sr. VP, Paul Kennon, FAIA, Pres., E. Bruce Appling, PE, Sr. VP, Caudill Rowlett Scott, Houston, Tex.

• *Judges' comments:* "This building was designed with a full sense that an active solar system was going to be a major part of the design—integrated into the project rather

than being added on./ The solar collectors come out higher than the building next to them. They are used for shading both walkways and buildings./ Even the pipes and ducts are handled in a straightforward way that enhances the design of the building and the atmosphere within it."



• Model (at right) shows the double wall of windows. The site (above) overlooks Niagara Falls. The building (still under construction) can be seen above the Falls.



• Owner, Engineer and Architect: Marvin W. Voelker, VP, Hooker Niagara Office Corp., Niagara Falls, N.Y., Alan M. H. Sloan, VP, Engineering and Mark R. Mendell, AIA, Sr. VP, Cannon Design Inc., Grand Island, N.Y.

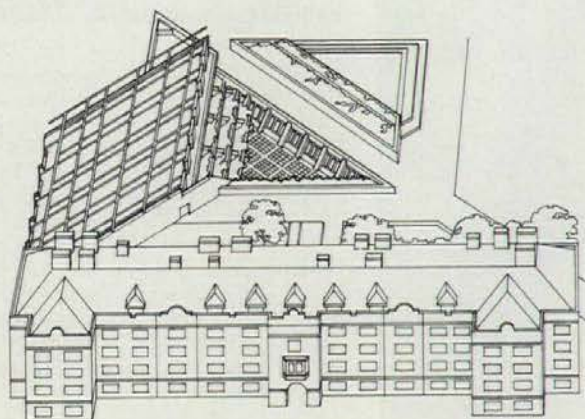
• Judges' comments: "We have here a highly innovative, highly technological solution./ Essentially, it's two walls of glass

four feet apart. In between there are adjustable louvers and moving air, so when the sun moves around the building, goes up and down, or goes behind the clouds, the building adjusts to the changing climate./ The double wall is key to

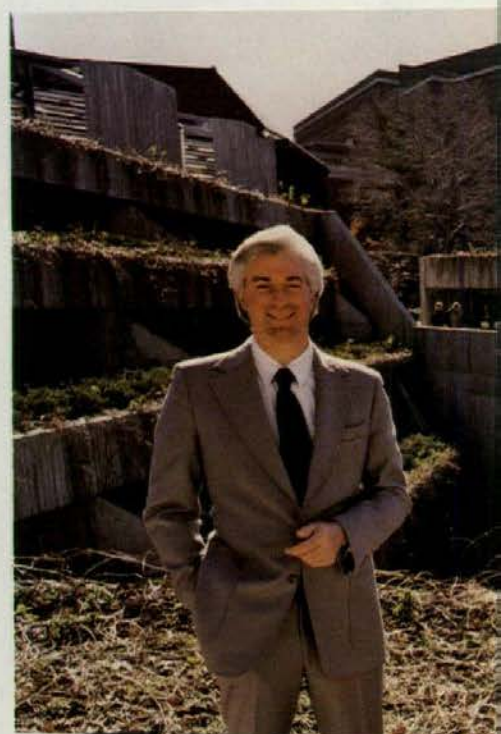
keeping unwanted heat out and letting wanted heat and light in.

"One of the things that's very attractive about this building is that in a time when we often find ourselves going to smaller window areas and less glass to save energy, this building has a total glass envelope and is still energy-efficient./It means one does not have to sacrifice a view, daylight, the interaction between inside and outside space for energy efficiency.

"One good idea, from an engineering standpoint, is that they've decentralized their domestic hot-water heating system. We've found that if you have a central hot-water heating system in an office building, your efficiency is about five percent. You keep the whole system hot 8,760 hours a year and all you do is occasionally use a little hot water in a washroom. Instead of putting in a central system, they use small hot-water heaters all around the building."



• An energy-efficient building in a crowded area: The right side of Williamson Hall is set into an earth berm. The active solar collector system is at left. A cross-campus walkway forms part of the roof.





SHELL OIL CO. OFFICES/HOUSTON, TEXAS



• **Owner, Architect and Engineer:** Edmund V. Pearson, General Mgr., Shell Oil Co., James B. Gatton, AIA, Sr. VP and John Kettleman, PE, VP, Caudill Rowlett Scott, Houston, Tex.

• **Judges' comments:** "The Shell project is extremely interesting in that it was designed with the basic building structure itself acting as a major element in the day lighting system. The mechanical ductwork

enclosures were located on the perimeter wall so they would act as a reflecting element to bounce light back into the rooms. The inside corridors are lit by the office lighting and by daylight bounced off the mechanical enclosure ducts. The result is very efficient lighting—only 1.3 watts per sq. ft. installed, with annual operations projected at less than 1 watt per sq. ft."

• **Triangles and atriums.** The company needed a large number of small offices. The solution: Closely grouped triangular buildings with central atriums for an efficient combination of light and shade.

WILLIAMSON HALL/UNIVERSITY OF MINNESOTA

• **Architect, Owner and Engineer:** David J. Bennett, AIA, Prin., Myers and Bennett Architects/BRW, Clinton N. Hewitt, Asst. VP Physical Planning, Univ. of Minnesota, Max Oftedal, PE, Prin., Oftedal, Locke, Broadston & Assoc., Inc., Minneapolis, Minn.

• **Judges' comments:** "This is a building that is largely underground. It is worked very nicely into an old part of the campus, a crowded area. The architects recognized what we call the soil temperature. If you go down so far, the earth has a constant temperature. Utilizing that as a base, they organized the design concept to use that temperature for more efficient heating. This is really tied into the urban environment—into

the many different walkways that cut across the campus. If you look at it from the side, it's something like a terrace walking into the ground. They used natural plants in a very imaginative way for external shading—the leaves providing added shade in summer, the bare branches letting in more light in winter."

• **For a free booklet with highlights of this year's winners, write A.W.Y. Meeks, Owens-**

Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659
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OWENS/CORNING
FIBERGLAS

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How you design with Bali one-inch blinds depends, of course, entirely on your point of view.

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Here, a little Blind Imagination helped establish a very imaginative beachhead. An office built inside a geodesic dome structure, featuring triangular windows and custom cut Bali blinds.

It's clearly a case of applied geometry. While this office may also be a special case, we've always been especially good at figuring all the angles.

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Circle No. 398 on Reader Service Card

PA News report

Fifteen projects win the first Aga Khan Award

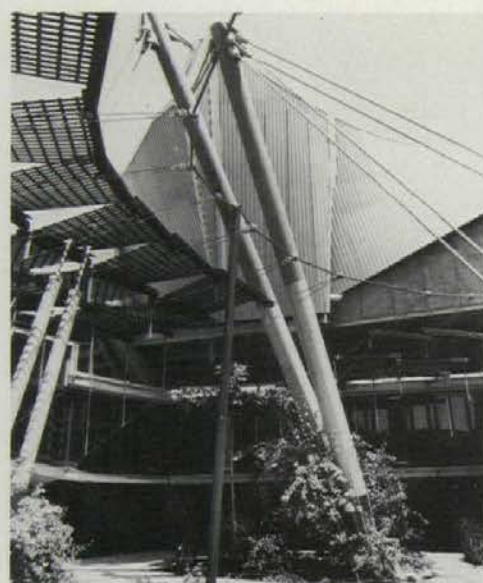
The first Aga Khan Award for Architecture in modern Islamic society was presented in Lahore, Pakistan, to 15 winning projects. The projects, selected from among 200 nominations, represent 12 countries from Senegal to Indonesia and share a \$500,000 prize fund. The Award will be distributed every three years to projects completed at least two years prior to submission.

President Zia Ul-Haq of Pakistan, who was host to the audience of over 500 architects, scholars, and government officials attending the ceremonies at the Shalimar Gardens, praised the Award for "its bold attempt to preserve the traditional identity and essence of Islamic architecture, while clearly expressing the social aspirations and technology of the 20th Century." The award was presented by its chairman and founder, His Highness the Aga Khan, spiritual leader of the Ismaili Muslims, and he said in his address that "the Award is dedicated to the work of the common man of Islam"; indeed, a unique aspect is its recognition of all those who contributed to the winning projects, from architects and government sponsors to master masons and entire villages.

As such, the Award was given to a project in Jakarta, Indonesia, whose social benefits are far more dramatic than its visual design. The Kampung Improvement Programme, sponsored by Jakarta's municipal government, built access roads and sewage and draining systems around existing structures in densely populated communities (kampung) with a half-million urban squatters. The program enhanced the quality of Kampung life, costing only \$60 per capita, without disturbing the cultural fabric of the communities, and reportedly has inspired further private improvements.

Technology and local materials

The Award also sought to recognize building systems that unite technology with locally available materials and manpower. An agricultural school in Senegal was cited for using a prototype design structure featuring narrow

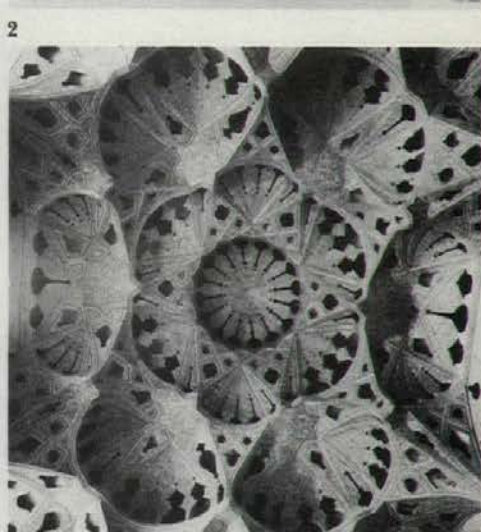


vaulted roofing. Designed by UNESCO, it can be adapted for use in other nations with similar circumstances.

Many of the winning projects, such as a hotel and convention center at Mecca with solar diffusion screens, and a summer house at Agamy, Egypt, with limestone heat-shedding floors and natural ventilation system, incorporate energy-conscious design.

Recognition of context

The Award places great value on the underlying cultural, economic, and environmental context of architecture. A medical center in Mali was recognized for bringing vital health services to an entire region and for using local materials to create a natural air-conditioning



- 5
- 1 Islamic Conference Center and Hotel, Mecca.
- 2 Summer House, Agamy, Egypt.
- 3 Kuwait Water Towers.
- 4 Detail, Ali Qapu, Isfahan.
- 5 Palace at Isfahan, Iran.



The elevators were running before the building was finished.

Delivered on time. Installed on time. Operating ahead of time. That's the story of the 22-elevator installation at Clinical Science Center of the University of Wisconsin-Madison, one of the most ambitious building projects ever in the state of Wisconsin.

The huge building complex on a 45-acre site houses four major components of the University of Wisconsin Center for Health Sciences—Hospital and Clinics, Medical School's Clinical Departments, School of Nursing and Wisconsin Clinical Cancer Center. On a typical day 6000 patients, staff, students and visitors use the building, and enjoy quiet, efficient inter-floor transit on Dover Elevators.

Dover wants to be on your team by providing on-time elevator installations. Dover Corporation, Elevator Division, Dept. 669, P.O. Box 2177, Memphis, Tenn. 38101.

Clinical Science Center,
University of Wisconsin-Madison

Architects:

Phase 1: Hellmuth, Obata and Kassabaum,
St. Louis

Phase 2: Flad and Associates, Madison
and Milwaukee, Wis.; Gainesville, Fla.

General Contractor:

Findorff-Hutter, "Joint Venture," Madison.

Dover Elevators installed by:

Northwestern Elevator Co., Milwaukee.



**The elevator
expeditors.**

system that maximizes shade and ventilation while reducing heat and dust. At the same time, it does not impose alien forms, and its long, open-air entrance is used by the townspeople as a walkway.

On the other hand, contemporary buildings recognized for their "integration of ancient concepts" seem quite uninspired. The Mughal Hotel in Agra, India, and the Turkish Historical Society in Ankara appear to be very ordinary modern buildings which hardly reflect their "Islamic context." More successful are those projects that are forthrightly "innovative," and those that closely reflect traditional form: the Conference Centre and Hotel in Mecca uses an aluminum suspension structure to tent over dramatically a 1400-seat auditorium; and the new summer house in Agamy, Egypt, reproduces traditional Islamic archetypes.

Several noteworthy preservation projects are cited. Outstanding are the restoration of the Ali Qapu, Chehel Sultun, and Hasht Behesht in Isfahan, Iran, completed over a 12-year period; and the preservation of the Tunisian village of Sidi Bou Said, which has been legislating to protect its architectural heritage for over 65 years.

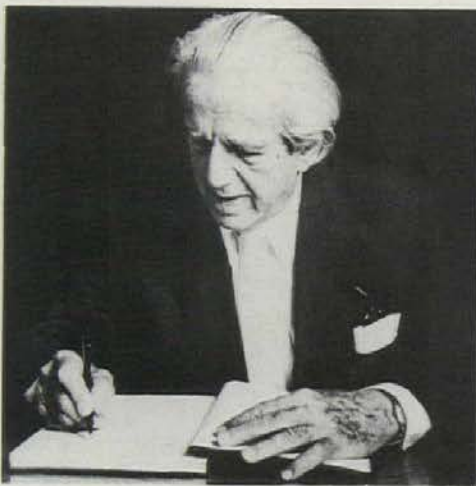
The Award winners in seven categories are:

- For social premises for future architectural development: Pondok Pesantren Pabelan School, Central Java, Indonesia, by Amin Arraihana Fanani, LP3ES, and Abdurrahman Wahid; Kampung Improvement Programme, Jakarta, Indonesia, by K.I.P. Technical Unit.
- For the search for consistency with historical context: the Mughal Hotel, Agra, India, by ARCOP Associates; Turkish Historical Society Building, Ankara, Turkey, by Turgut Cansever and Ertur Yener; and the Ertegun House, Bodrum, Turkey, by Turgut Cansever.
- For the search for preservation of traditional heritage: Sidi Bou Said resort village, Tunis, Tunisia, by the Technical Bureau of the Municipality and Sanda Popa.
- For restoration: Ali Qapu, Chehel Sultun, and Hasht Behesht, Isfahan, Iran, by the Istituto Italiano per il Medio ed Estremo Oriente and Eugenio Galdieri; Rustem Pasha Caravanserai, Edirne, Turkey, by Ertan Cakirlar; and the National Museum, Doha, Qatar, by Michael Rice & Company with Anthony Irving, Design Construction Group.
- For the search for contemporary use of traditional language: Medical Centre, Mopti, Mali, by Andre Ravereau; Halawa summer house, Agamy, Egypt, by Abdel Wahed El-Wakil; and Courtyard Houses, Agadir, Morocco, by Jean-Francois Zevaco.
- For innovation: Water Towers, Kuwait City, Kuwait, by VBB and Bjorn & Bjorn Design; and the Islamic Conference Centre and Hotel, Mecca, Saudi Arabia, by Professors Rolf Gutbrod and Frei Otto.

• For the search for appropriate building systems: Agricultural Training Centre, Nianing, Senegal, by UNESCO/BREDA.

Coinciding with the Aga Khan Award was the presentation of a Chairman's Award to Egyptian architect Hassan Fathy for his lifetime achievement in creating architecture for Muslims. The Award also sponsored seminars titled "Architectural Transformations in the Islamic World."

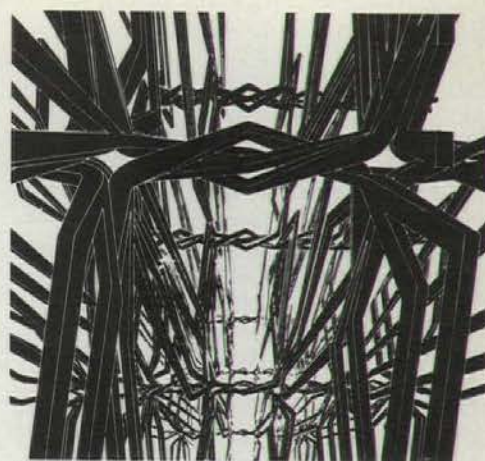
Furthermore, His Highness the Aga Khan has given an endowment to Harvard University and to the Massachusetts Institute of Technology, to support a program for Islamic Architecture administered jointly by the two institutions. The endowment has provided professorships, scholarships, and library resources. In addition, funds will support further activities over the next five years, including research and publications programs and seminars, lectures, and conferences.



Konrad Wachsmann
1901-1980

He arrived in America in 1941 at age 40, and seeing the skyscrapers he said, "This is my world, this is my scale." This was a world that would accept industrialization of the building process. In the past he had changed his heroes from Schinkel to Le Corbusier to Paxton—and there he had stopped, for Paxton's Crystal Palace was the beginning of the industrial age. He invented a system in wood in Germany, one in concrete in Italy, and in America he invented the space frame of tubular steel. When his adopted world did not respond, he tried to reform education to bring building into the 20th Century. By Nov. 25, 1980, when he died, his cause had advanced little beyond where Paxton left it in 1851.

He was born in 1901 in Frankfurt-Oder in the former throne room of the town palace. At age 15 he showed so little promise that his father, a pharmacist, apprenticed him to a carpenter. He developed a skill at drawing and an interest in architecture, so he entered the Academy of Art in Berlin, living and working in the house of his professor, Hans Poelzig. He switched to the Acad-



A structural unit by Wachsmann, 1953.

emy of Applied Art in Dresden, but his informal education was at the Caffee Romanische in Berlin where artists, architects, film-makers and theater directors remade society each day in their own idealistic image.

One day he set off for Holland to find work with Oud, and failing, continued on to Le Corbusier in Paris. He got unpaid work doing renderings and sold papers on the street to live. When his weight dropped to 110 pounds, his sister sent him a ticket home. Poelzig sent him to Niesky, a small town in Silesia to regain his health and to work. The one industry in the town was Christoph and Unmak, whose panel systems for houses, schools, and hospitals were shipped over the world. A direction was opened to Wachsmann that he would follow the rest of his life. He expected to stay a month; he stayed three years. Then in private practice in Berlin he adapted the panel system for a number of buildings, including a house for Albert Einstein. Wasmuth brought out a book on his wood systems.

In 1931 he received a Prix de Rome, and in the next seven years in Italy he perfected a system in concrete for public buildings and apartments. By 1938 the Bauhaus had been closed, most of his friends had fled Germany, and he was no longer welcome in Italy. He moved on to France: Einstein sent him \$10 a month. When he was finally interned there he was put in charge of building barracks for 1000 internees. Using a panel system and universal connectors, the barracks were erected in ten days.

In 1941 Einstein and Walter Gropius arranged for him to emigrate to America. There he and Gropius adapted the panel system for the elegant General Panel Houses. The vital need for housing in wartime promised success for mass production, and a semiautomated factory was set up in Burbank, Ca; but with the end of the war, handcraft methods returned.

The joint was always at the crux of his research, and in his Mobilar system of tubular steel (1944-45) the joints were light and open in contrast to conventional methods.

[News report continued on page 32]

tional construction. By 1959 he had perfected the system to the point where 20 members could be joined in a single node. By that time he headed the Department of Advanced Building Research at Chicago Institute of Design (later IIT), and his students worked on the team to design a hangar for the B-51 bomber. In all his teaching, teams were organized to pursue a problem—to research, to experiment, to develop. In 1963 he went to USC to head a graduate program in the science of building. He was a professor emeritus when he died.

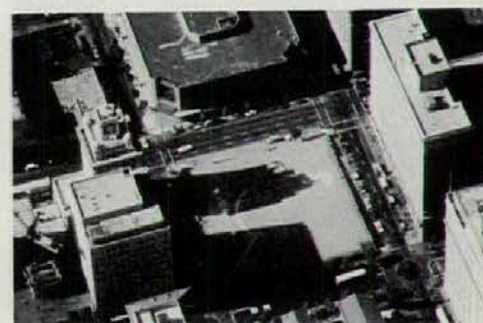
He had a broad knowledge and love of historical architecture and had photographed hundreds of buildings, but for him there was more in a truss-to-column connection than in the classical orders, more in a laminar arrangement of lattice braces in the Eiffel Tower than in the buttressing of Notre Dame. Once Le Corbusier asked him what he thought was the most beautiful structure in France, and Wachsmann proposed that they write their answers on slips of paper and exchange them. They had both written Pont Transbordeur, the cable ferry between the inner and outer harbor of Marseilles. [Esther McCoy]

Solar conference set for Philadelphia in May

Over 3000 professionals from the U.S. and abroad are expected to attend the annual conference of the American Section of the International Solar Energy Society—entitled "Solar Rising"—to be held in Philadelphia, May 26-30. On the final day, when the programs and accompanying trade show will be open to the public, attendance of 20,000 is anticipated.

A special program within the overall schedule of the event will be a symposium on solar applications for urban areas, called "On the Rise: Solar in Cities." This program will include three professional sessions on Friday, May 29, involving public officials as well as design professionals, and a session the following morning on neighborhood initiatives.

For additional information on the AS/ISES conference and exhibition, "Solar Rising," contact Rick Ross, Conference Manager, Room B2, Bennett Hall/D-1, University of Pennsylvania, Philadelphia, Pa 19104. For details on the symposium, "On the Rise: Solar Cities," contact Dr. Charles Burnette, Philadelphia Solar Planning Project, 234 South Third St., Philadelphia, Pa 19106 (215-925-0844).



Painting Portland's Pioneer Courthouse Square

A two-level parking structure is to be transformed into a public square opposite the Pioneer Courthouse in Downtown Portland (see p. 148). Construction must await the necessary fund-raising, but meanwhile the asphalt eyesore has been relieved by a rainbow of color in a day-long program which had citizens crawling on their hands and knees and loving it. Martin/Soderstrom/Matteson, the architectural firm which won the competition to design the Square, organized the community effort to paint the top deck of the parking lot as a colorful graphic representation of the eventual construction. Professional painters applied a base coat (and in the process unceremoniously covered a 1963 Oldsmobile, symbol of a past era, entirely in red), volunteers completed the job, and donations were solicited to defray costs. Local radio and television stations and newspapers pro-

vided wide publicity for the event, which has provided a colorful setting for community events until the transformation of Pioneer Courthouse Square is realized.

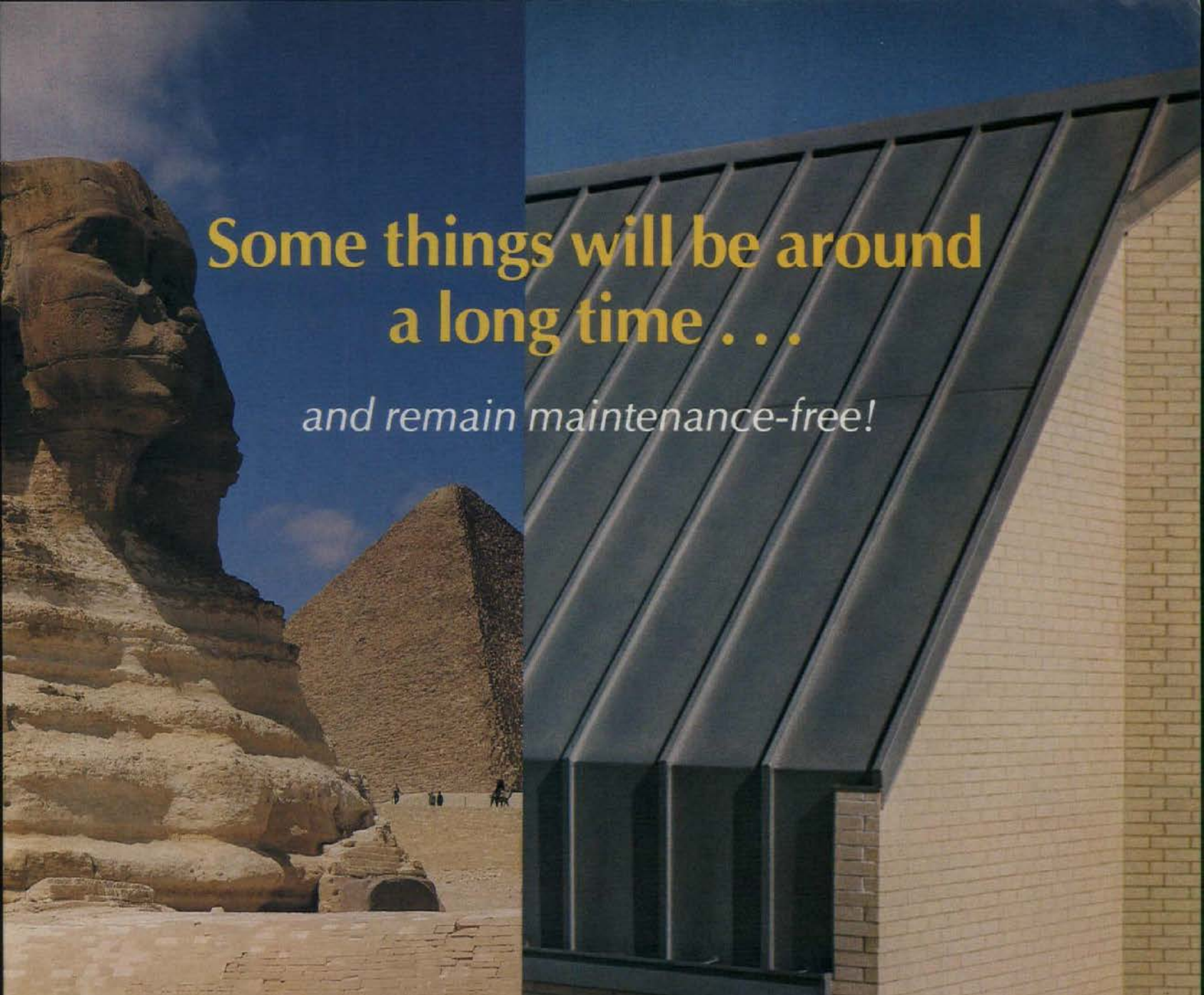
Cologne trade fair included P/A program

About 84,000 visitors attended the third biennial office trade fair, "Orgatechnik," held in Cologne, Oct. 21-26, 1980. The international nature of the event was indicated by the attendance of 8500 from 55 nations other than Germany. Officials reported that overall attendance had risen 27 percent over the 1978 Orgatechnik, with foreign attendance doubling.

Virtually every type of product used to create and operate the modern office could be found among the exhibits of 1106 companies from 23 nations, which occupied 1.25 million sq ft of the vast Cologne fair complex. The office furnishings exhibits were notable for the predominance of modular work stations and for the integration of video displays and other electronic equipment into these systems. Also of apparent concern was safety in the office—evident in soft, rounded furniture edges, for instance, and five-branched pedestals for chairs, which also displayed many ergonomic features. An energy-conserving component included in many work-station systems was individually controlled ambient lighting, of special value for offices operating on flexible schedules. Advances in security, monitoring, and alarm systems for the office were also exhibited.

Seminar programs accompanying the show included a three-day international convention on text-processing. There were meetings on such subjects as business communications and the safe-

[News report continued on page 37]



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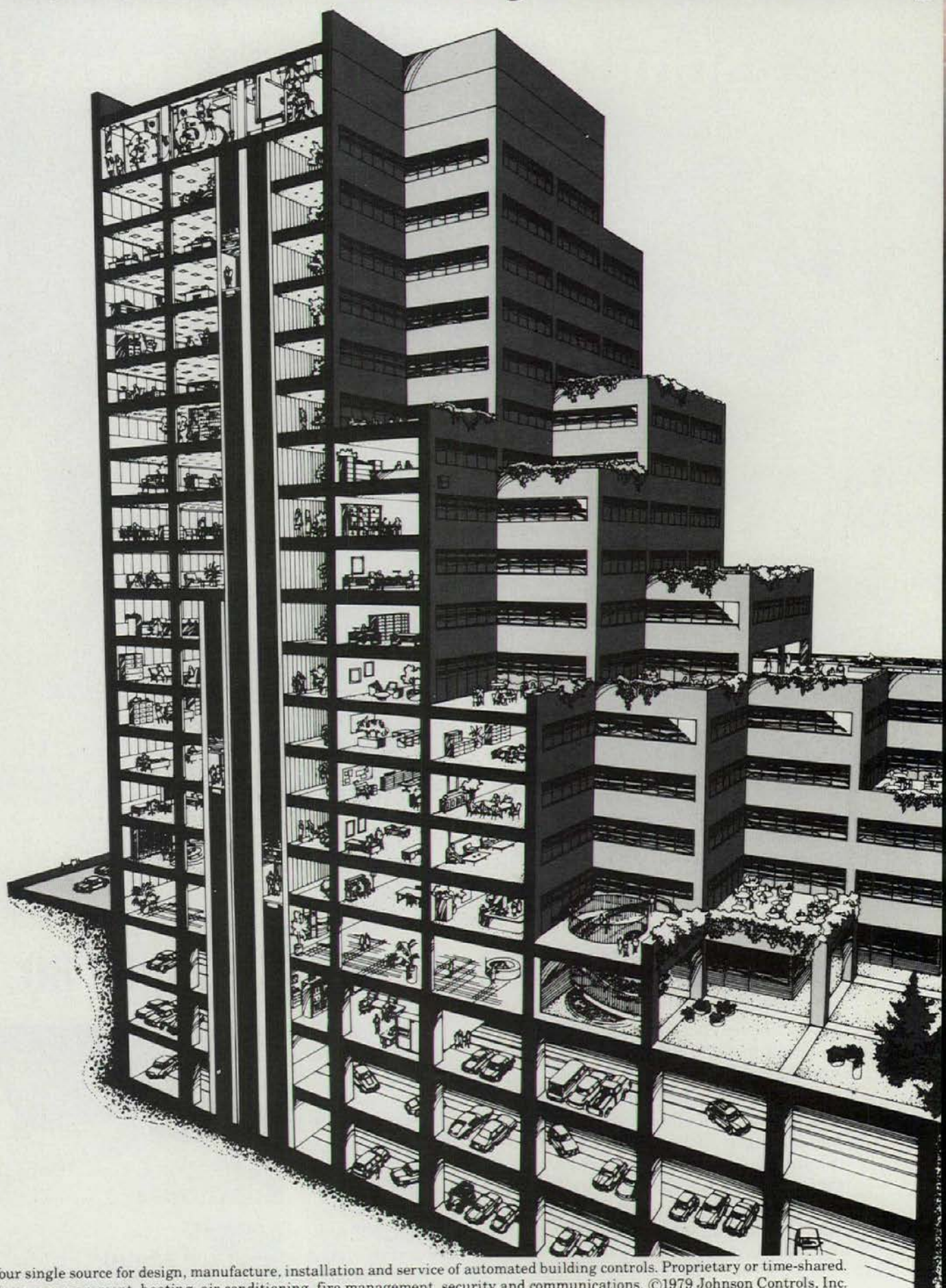
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Kevin Dowling, Vice President
Donald Bentley and Associates
Project Engineer, State Fund Building
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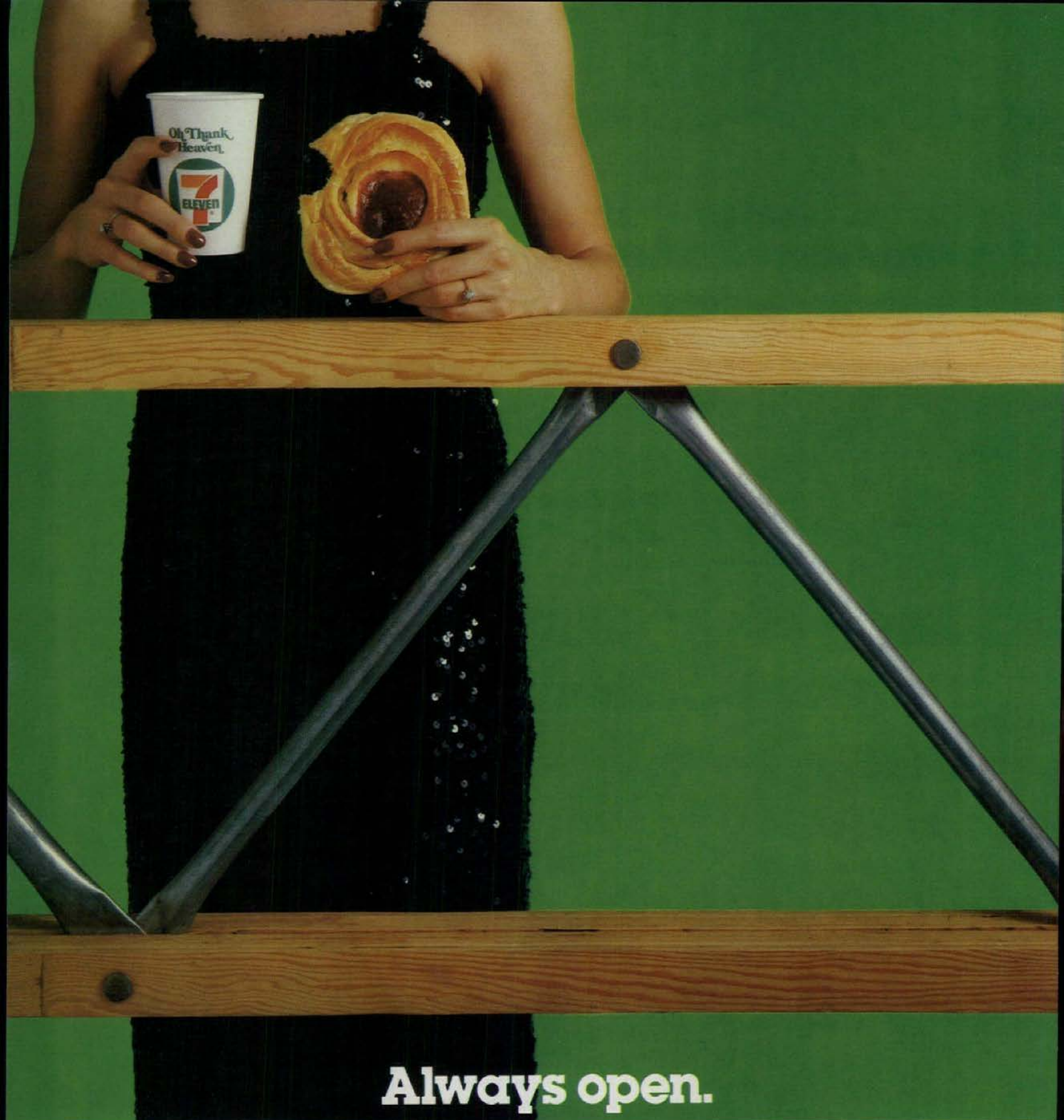
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guarding of data. *Progressive Architecture* sponsored a panel on "Marketing Interiors Products in the U.S.A." Participating in this panel discussion with P/A publisher James Hoverman were Robert B. Cadwallader of Sunar, Joseph L. Vitagliano of Gia Internationale Designs, Gunther B. Pamberg of Comforto Systemes, and Emmett Dineen of the Chicago Merchandise Mart.



Old Jerusalem roadway plan approved

In 1898, Wilhelm II, King of Germany, arrived for a ceremonial visit to Jerusalem. To accentuate the regal pomp of his entry, a significant chunk of the Old City's wall near the Jaffa Gate was battered down to permit free passage of His Majesty's horse-drawn carriage.

An activist coalition of Israeli archeologists and environmentalists today cite that display of temporal expediency in making their case against a proposal brought forth by Jerusalem city planners to relieve traffic congestion in the very same area. The plan would simultaneously improve commercial links between the Old City and the Western portion of the city, areas divided by Jordanian barbed wire from 1948 until 1967 when Israel reunited its capital.

Approximately 19,000 vehicles daily pass the outer walls of the Old City on a narrow, hilly road that lends itself to frequent traffic jams and pollution. The Jerusalem Municipality, after studying the situation for 13 years and reviewing various proposals to rectify it, finally decided on one based on ideas by Moshe Safdie, the Israeli-born chairman of Harvard University's Urban Design Department, in association with Gilbert Weil. The plan would enlarge the road to four lanes and take it underground, out of sight and earshot.

In addition to the underground passageway, a garage for 600 cars and buses is to be constructed, along with a major subterranean shopping center and an above-ground pedestrian bypass. Traffic would be banned from entering the Old City's ancient, winding streets

*Mamilla Master Plan Model (above).
Jaffa Gate (top).*

via the Jaffa Gate as it now does.

The plan is part of a larger one intended to renovate the Mamilla area which adjoins the Old City. Once a stately neighborhood, it fell largely into abandon during the years of Jordanian occupation when Arab gunners sporadically rained down artillery and light arms fire from their vantage posts atop the Old City's outer walls.

Some archeologists oppose the plan out of fear that the roadwork might somehow weaken these walls, not to mention the apprehension present in all construction in the Jerusalem area—that some wondrous ancient find might be lost to eager bulldozers. Jerusalem is also subject to earth tremors, on the average of once a century, so intervention anywhere near the walls is automatically scrutinized.

More vocal opposition comes from the environmentally oriented Council for a Beautiful Israel and the Society for the Protection of Nature. Spokesman Arthur Kutcher, an American-trained architect who worked as the Government planning officer for the Old City from 1970 to 1972, charges: "The idea of a shopping link connecting the Old City and the new commercial center, the idea that you have to shop your way in to the Holy City, is perverse and grotesque." Kutcher fears that an influx of bigger international investment might have the effect of squeezing out several smaller businesses presently operating in the area.

The leading proponent of the scheme, besides Jerusalem city fathers, is Safdie. Safdie maintains his idea will

help save the Old City by diverting traffic from its walls, reducing pollution there and eliminating congestion in the narrow streets, where the ancient stones have been scratched and broken in recent years by trucks and other vehicles.

Echoing Safdie's sentiments is Mayor Teddy Kollek whose environmental credentials appear unimpeachable: "We go to extraordinary lengths to preserve things, so all these accusations come as a shock. There is no substance in them."

The plan, modified somewhat in partial response to its critics, was approved last July. At present it is being ratified on a stage-by-stage basis by various city and regional planning councils, a process that will most likely result in concrete implementation within 6 months.

[Charley J. Levine]

Mr. Levine is an Israeli-based journalist.

Competition: Innovations in Housing

The nationwide Innovations in Housing competition, sponsored by *Progressive Architecture*, *Better Homes and Gardens*, and the American Plywood Association, is now in its fourth year, and entries are being accepted until March 16, 1981.

The First Award of \$5000 and Citations of Merit will be presented to single-family residences, either attached or detached, that demonstrate innovation in architectural concepts, construction methods, planning, and energy-efficient systems. *Progressive Architecture* annually features the winning designs in an issue, and the winning design is constructed and shown in both P/A and *Better Homes and Gardens*.

The jury for the 1981 competition includes James A. Murphy, AIA, executive editor for P/A; James Nagle, FAIA, principal of Nagle, Hartray & Associates, Ltd., Chicago; David Hauptert, senior building editor for *Better Homes and Gardens*; and Randall W. Lewis, vice-president of marketing and public relations for Lewis Homes, Las Vegas, Nv.

To receive an entry form write: Innovations in Housing, American Plywood Association, P.O. Box 11700, Tacoma, Wa 98411.

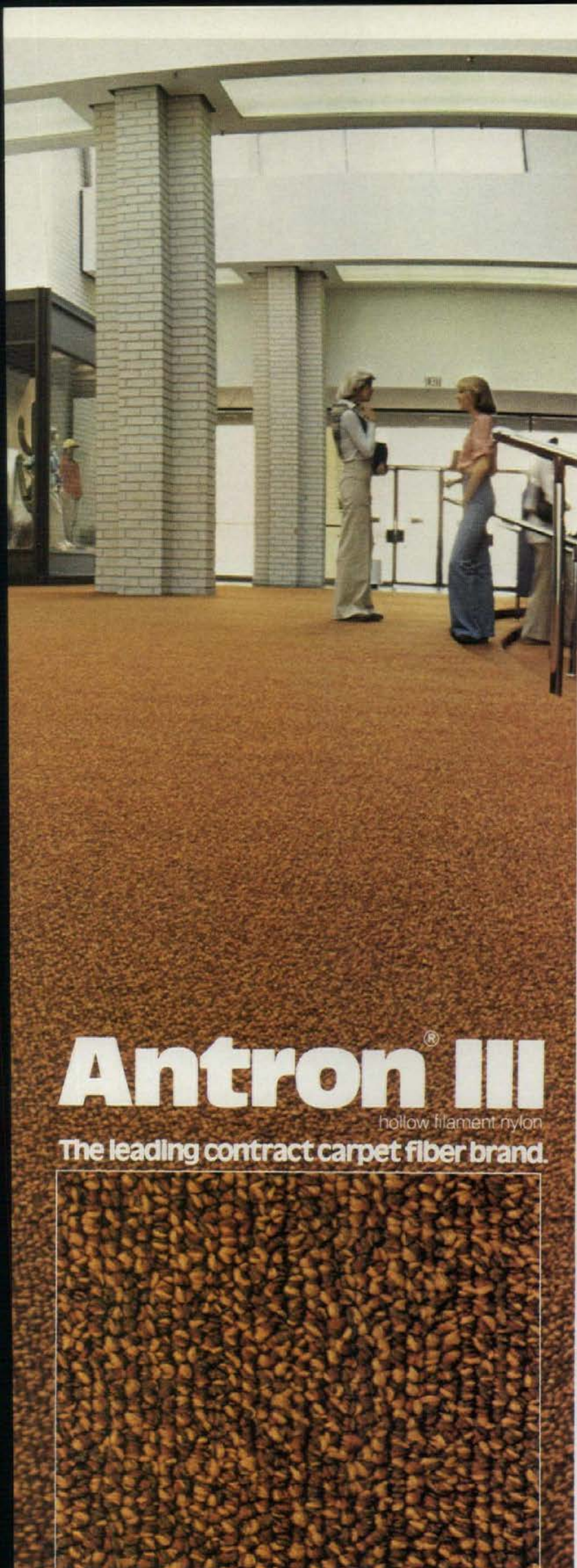
34 companies honored in P/A AdAwards program

For the sixth consecutive year, P/A is recognizing the best advertising published in the magazine, as selected by a jury of architect readers. Judging on the basis of information, clarity, pertinence to architectural professionals, and visual excellence, this year's jurors chose ads by 34 companies.

The winners are Kohler Company; Bradley Corporation; Accessory Specialties, Inc.; Rmax, Inc.; Tectum, Inc.; Pittsburgh Corning Corp.; International Masonry Institute; Gail Architectural Ceramics; Birdair Structures, a Division of Chemfab; Bethlehem Steel

[News report continued on page 40]





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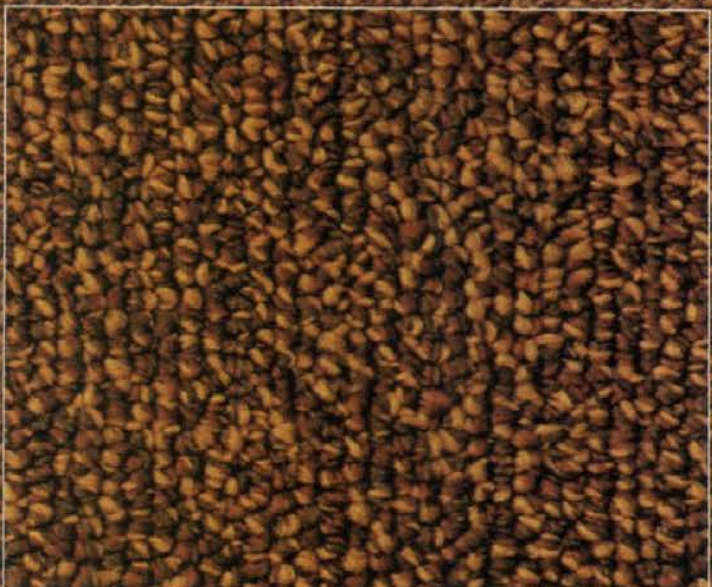


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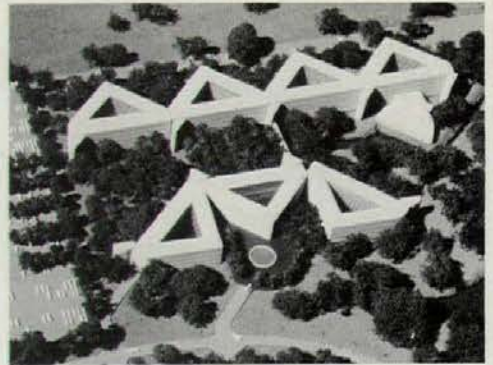
Corp.; American Plywood Association; Dover Corp., Elevator Division; Tremco; Pratt & Lambert; Donn Corp.; Ambient Systems Ltd.; Rohm & Haas Co.; Pella, Rolscreen Co.; Forms + Surfaces; Rambusch; Naturescapes; Alcan Building Products; V'Soske; Mondo Rubber Canada, Ltd.; Karastan Rug Mills; Thonet; Herman Miller, Inc.; Landscape Forms, Inc.; Knoll International; ICF—International Contract Furnishings, Inc.; Formica Corp.; Brickell Associates, Inc.; Arc-Com Fabrics, Inc.; Arcado Systems Ltd. Advertisers were recognized for specific ads, not necessarily for all of their entries during the year.

Jury members were architects Peter Q. Bohlin of Bohlin & Powell, Wilkes-Barre, Pa.; James W. Hammond of

Hammond, Beeby & Babka, Chicago; Todd Lee of Cambridge Seven Associates, Cambridge, Ma.; and Walter Rosenfeld (P/A "Specifications Clinic" contributor) of The Architects Collaborative, Cambridge, Ma. Serving as moderator was Charles H. Biederman of the General Electric Co. Honors are being presented to winning companies and the advertising agencies at an awards dinner in New York on January 15.

Owens-Corning awards for energy conservation

Honored at an awards banquet in New York last month were seven winners in the ninth annual competition sponsored by Owens-Corning Fiberglas. The program spotlights the contributions to energy conservation by design profes-



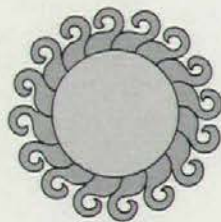
Shell Oil Company Exploration and Production Office, by Caudill Rowlett Scott.

sionals, by recognizing them and their clients for exceptional energy-conscious design.

The Willow Creek Office Building, Idaho Falls, Id., by architects Flatow Moore Bryan & Associates of Albuquerque was cited for its use of heat pumps, thermal storage, daylighting—reflected from deep stainless window sills—and high-intensity lighting to give the occupants three times their previous space, using 22 percent less energy. Caudill Rowlett Scott of Houston was honored for the Shell Oil Company Exploration and Production office complex, now under construction in Houston, which will make dramatic savings in energy consumption by relying largely on daylighting. The proposed Hooker Chemical Corporate Office Building for Niagara Falls, NY (P/A, April 1980, pp. 102-105), credited to Cannon Design, Inc. of Grand Island, NY, was recognized for its innovative "dynamic skin" with automatically operating louvers.

Caudill Rowlett Scott won a second award for the Federal Correctional Institution at Bastrop, Tx, which has 25,000 sq ft of solar collectors mounted on sawtooth roofs, designed to cover most of the hot water demand, almost half of the heating, and a portion of the cooling load; the north faces of the sawtooth shapes provide natural daylight. Myers & Bennett/BRW, of Minneapolis, was recognized for Williamson Hall at the University of Minnesota, which houses administrative offices and a bookstore (P/A, Jan. 1975, pp. 52-53) in a largely underground structure with ample daylighting through a sunken central garden. Architects Copland Hagman Yaw, of Aspen, Co, won an award for the Obermeyer Corporate Offices in Aspen, a 30,000-sq-ft office-warehouse structure heated by a sophisticated Trombe wall 120 ft long and 20 ft high. Ballinger, Architects and Engineers, of Philadelphia, received recognition for the proposed SmithKline Corporation Pharmaceutical Research Laboratory to be built in Upper Merion, Pa, which will have highly innovative air-conditioning and heat-reclamation systems to deal with the stringent demands for air changes in laboratory animal rooms.

The jury for the program: architects C. William Brubaker of Perkins & Will, Chicago, who was chairman, and Ezra D. Ehrenkrantz of New York; engineers [News report continued on page 44]



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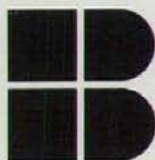
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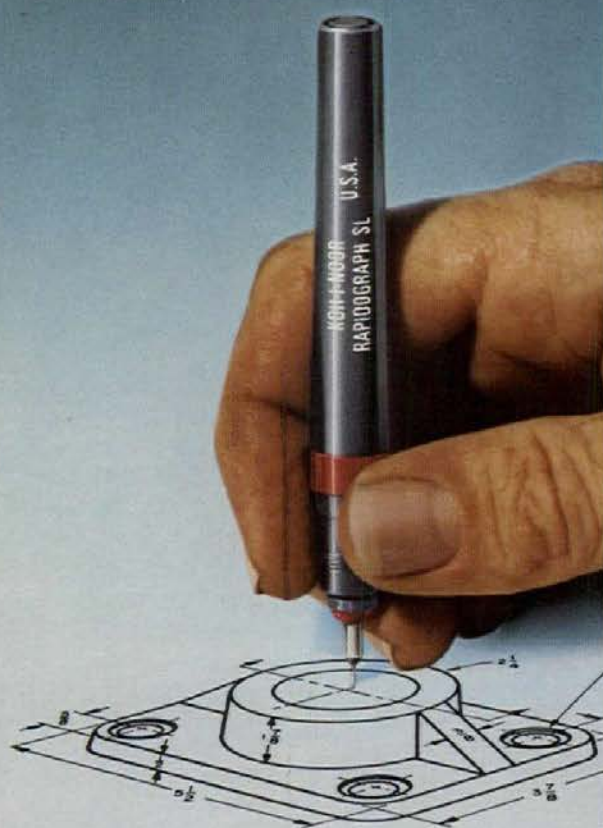


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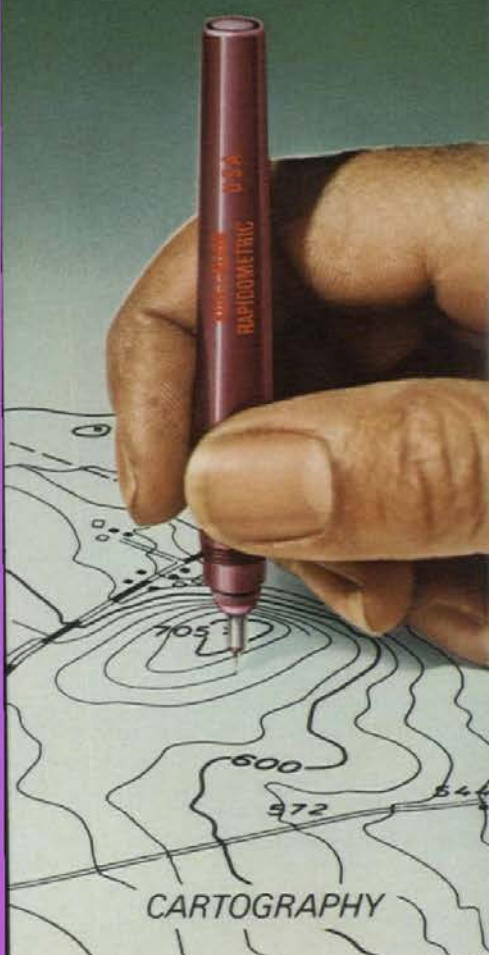
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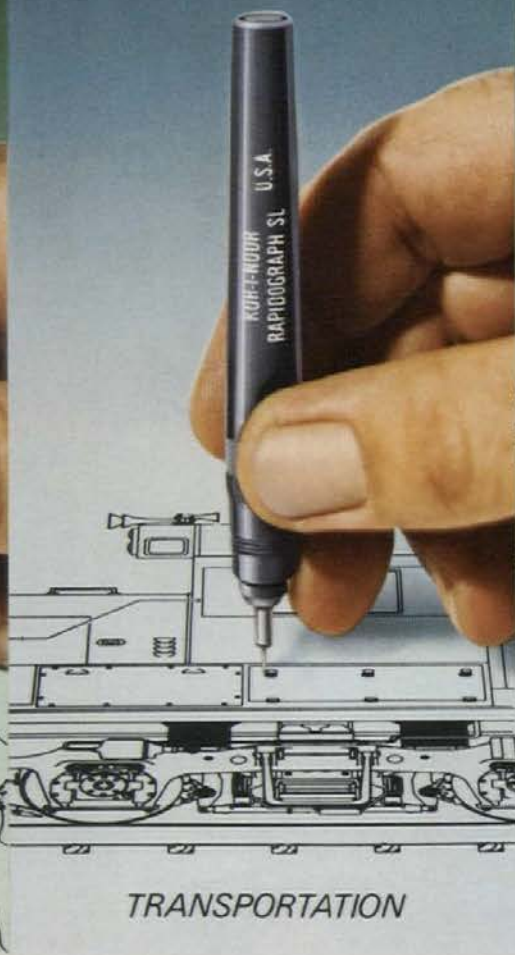
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Arthur E. Wheeler of Henry Adams, Inc., Baltimore, and William J. Coad of Charles J.R. McClure & Associates, St. Louis; John K. Holton, architect and engineer, director of the Energy Conservation Division of the General Services Administration, Washington; Masao Kinoshita, architect, landscape architect, and planner of the Ohio State University School of Architecture, Columbus.

Rudolph's Oriental Gardens headed for demolition

Bad leaks, cold, and poor "defensible space" are the reasons cited by HUD's Hartford office manager John McLean for the decision made in September to

demolish Oriental Gardens. The 148-unit prefabricated housing project was built in 1972 to the designs of Paul Rudolph, former dean of the Yale School of Architecture.

The two-story development, built on a beautiful site near the Merritt Parkway in West Rock, New Haven, Ct, was originally owned by the Oriental Masonic Order and funded by the Department of Housing and Urban Development. As the design contravened minimum property standards, says McLean, the decision to fund its construction could not be made in Hartford, but came from Washington, in the heat of the Operation Breakthrough years of the early 1970s. The prefabricated units were made in Baltimore and shipped, in part, to Bridgeport Harbor.

Financial problems have plagued the project, and HUD took possession of it in January 1979. Prior to that it was



Photos: Lorenzo Evans



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owned as a cooperative by its residents, who did not vote to provide sufficient maintenance funds, says McLean. He denies, however, that poor maintenance was the reason for the roof leakage, as HUD has constantly repaired the roof during the last year and a half, with no permanent solution to the problem. The cold temperature of the apartments is also a chronic problem, says McLean; since the heating system is in the roof, floors are always cold in the basement-less buildings. Materials, too, are flimsy, explains McLean, and a person can actually reach out and "flap" the wood siding. Furthermore, because there are so many hidden corners in the modular development, crimes are frequent, according to the HUD manager.

Since HUD has owned Oriental Gardens, it has commissioned several studies to decide whether to rehabilitate the project or to replace it. Rudolph has not been consulted in this process, and HUD's own staff, experienced in rehabilitation, has performed most of the studies. One proposal suggested covering the existing rounded roofs with a completely new, peaked roof. It was finally decided that any rehabilitation would be expensive and would not overcome the bad image of the project, a third of its apartments having already been voluntarily abandoned.

"This is no Pruitt-Igoe, however," insists McLean, the distinction being, it seems, that in New Haven the decision was first made to replace the housing (with a 158-unit housing project on the same site, by an architect still to be chosen) before demolition was approved. The relocation of the remaining families is almost complete.

National building museum is founded

A five-year drive to form a private national museum of architecture in the federally owned landmark Pension Building in Washington has succeeded, with the founding of the National Museum of the Building Arts. Albert [News report continued on page 48]

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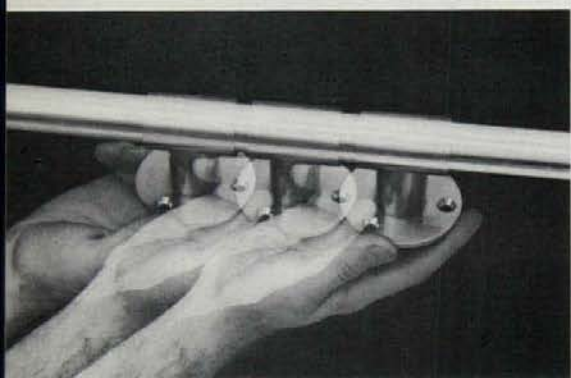
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News report continued from page 44



Pension Building courtyard.

Bush-Brown, architectural historian and Chancellor of Long Island University, has been elected president of its 22-member board of directors, and Dr. Bates Lowry, art historian and former director of the Museum of Modern Art in New York, has been appointed director.

The National Building Museum will focus attention on the built environment through a national program of exhibitions and publications. It will also serve as a central information bank for professional associations, unions, and manufacturers as well as for teachers, writers, and students interested in the history of architecture.

The Pension Building is a massive red brick structure built in the 1880s to house offices dispersing benefits to Civil War veterans. It has a large interior courtyard measuring 300' x 100', ten stories high, with windows and skylights allowing air and light to circulate. The space, grandly proportioned, has been put to many ceremonial uses, including presidential inaugurations. The proposal for a national museum devoted to building emerged just as an appropriate use was being sought for the building, and in 1978 Congress passed legislation allowing the historic structure to house the museum and related governmental agencies. The Pension Building is structurally sound, but the Museum awaits government funds to provide for its restoration.

Paris Prize awarded to California student

John A. Sportorno a senior architecture major at California Polytechnic State University, San Luis Obispo, has been named the nation's top undergraduate architecture student, and will receive the \$6000 Paris Prize for overseas travel and study. The prize is awarded annu-

[News report continued on page 52]

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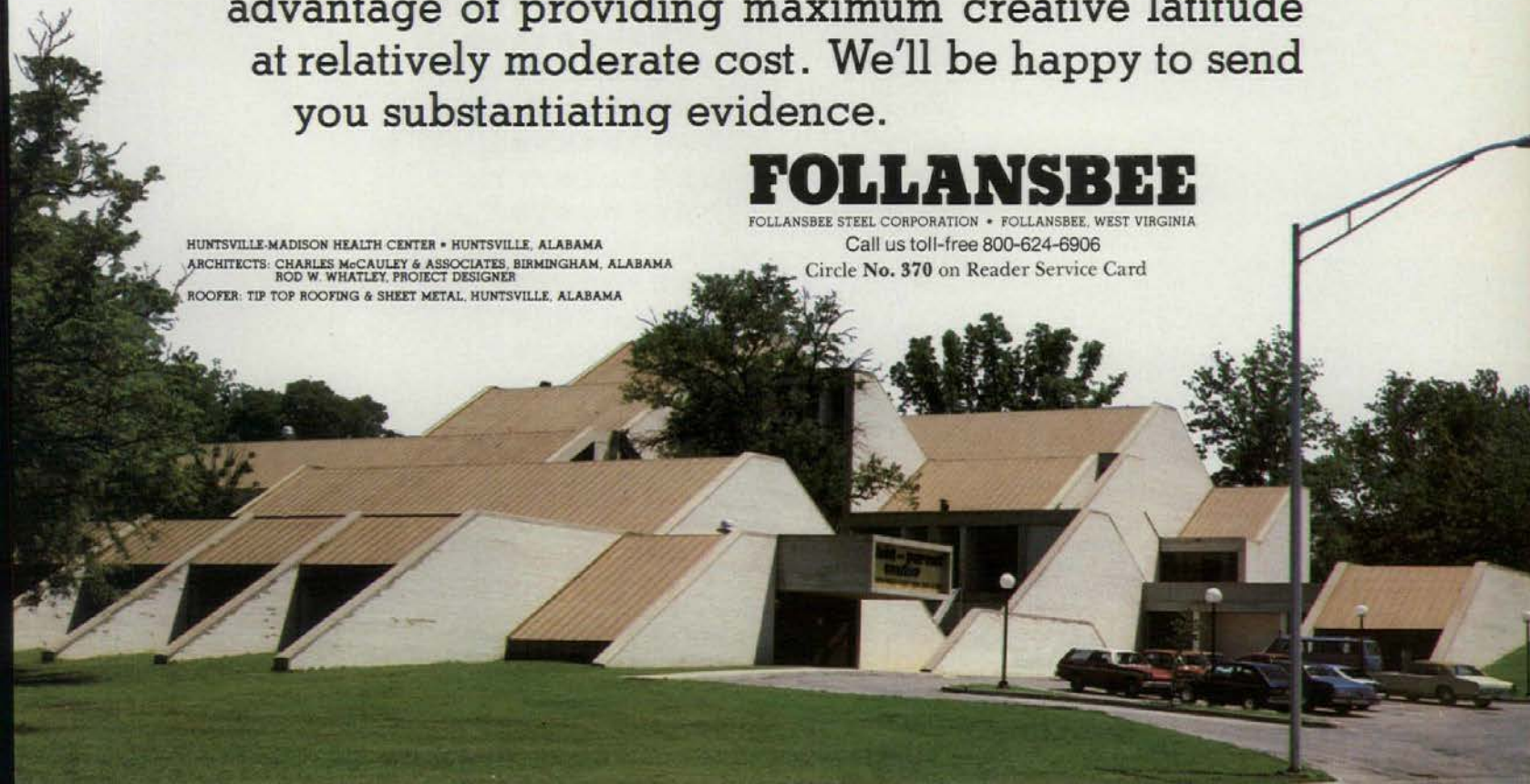
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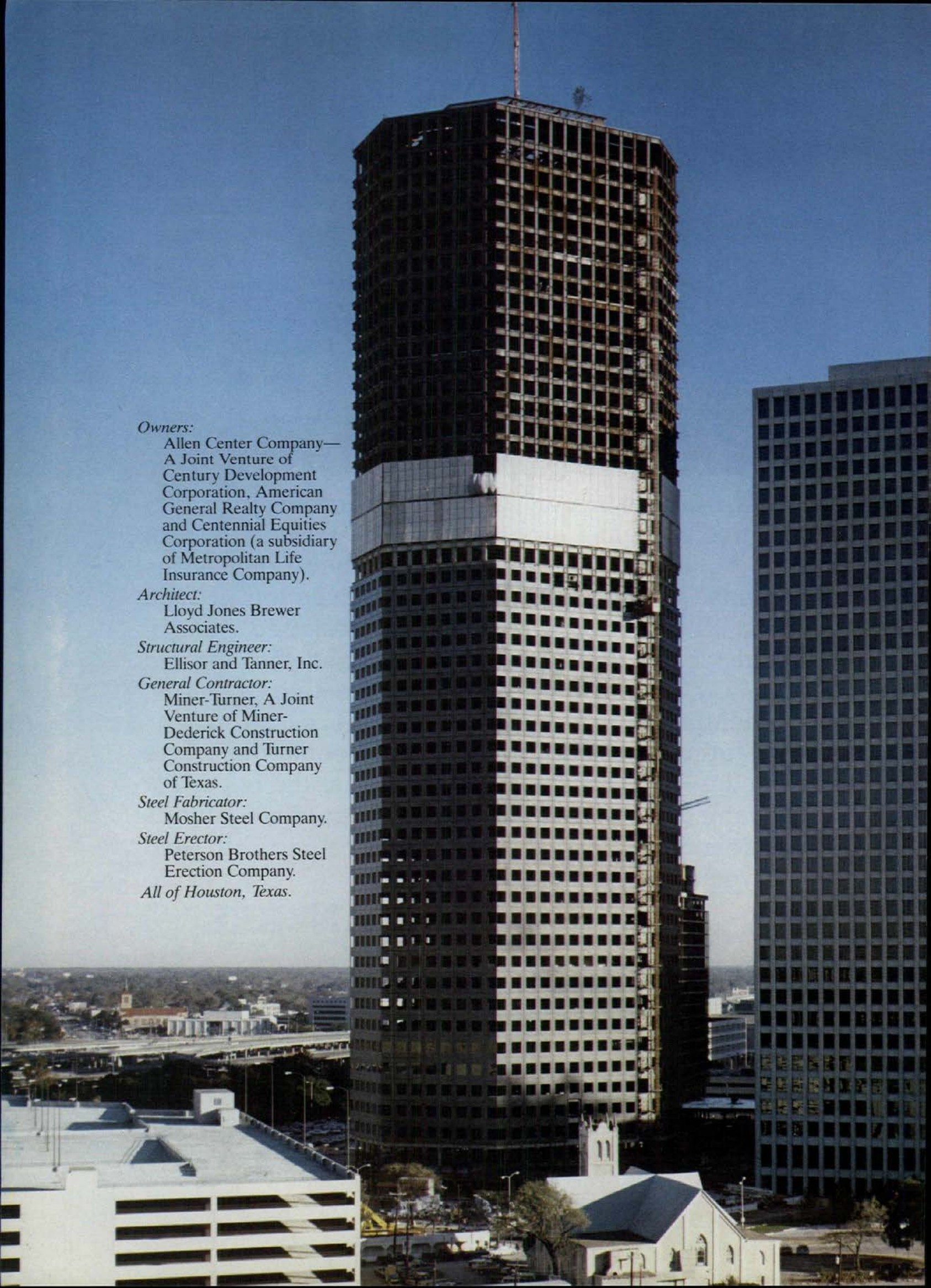
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Only steel made possible a major redesign in Houston's newest Allen Center building.



When the steel for Allen Center's newest building, a 50-story, 1.3-million square foot tower, was almost half erected, a major downtown banking institution, Capital National Bank, requested a large

block of space on the lower floors. To accommodate the bank's needs, the floors were redesigned to provide an open atrium-like area for banking and office levels. This major redesign was only possible because of the building's steel frame.

The imposing, bronze-tinted Capital National Bank Plaza building is one of Houston's tallest skyscrapers, a \$100-million addition to Allen Center—a \$1-billion complex in the central business district.

Steel Tubular Design Frame

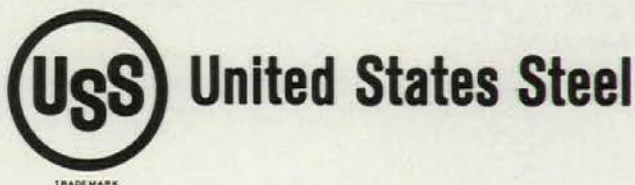
The steel tubular design frame—the first of its kind in Houston—is made up of 54 perimeter tree columns on 10-foot centers.

Two stories high, these narrow prefabricated assemblies of exterior columns and exterior beams not only help reduce construction time but provide more window area, enhancing the leasability of the space.

The building's unusual eight-sided shape, intended to provide tenants with a variety of views and extra corner offices, also created eccentric wind loadings which are more efficiently handled by tubular design. 16,500 tons of steel went into the building—most of it supplied by U.S. Steel.

The unique story of this newest Allen Center tower is one more example of the flexibility of structural steel. In this case it permitted redesign and changes in a part of the structure already completed; without affecting the scheduled opening date of June, 1980.

To find out more about this building, and for information regarding the many applications for structural steel, contact a USS Construction Representative through your nearest U.S. Steel Sales Office. Or write for the USS Building Report (ADUSS 27-7675-01) to P.O. Box 86 (C1267), Pittsburgh, PA. 15230.



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News report continued from page 48



Student John Sportono and his award-winning design.



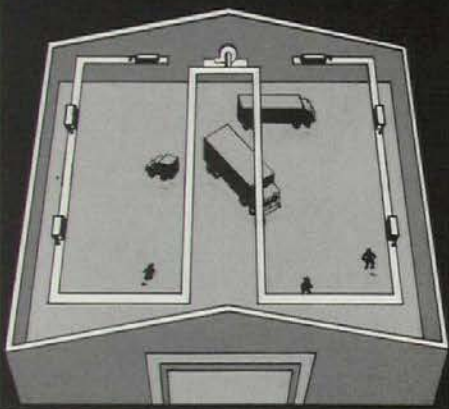
ally by the National Institute for Architectural Education. This year, 55 entrants (students from 22 colleges and universities across the nation) were given six weeks to design a convention center to be located on the site of the former Penn Central Railway freight yards in Midtown Manhattan. Sportono's design features a skylit glass and steel "galleria" serving as the principal spine across the site, and dome-capped cylinders providing vertical circulation. A generous plaza and pedestrian bridges link the building to the surrounding community.

Partial economic recovery predicted for 1981

What is the general business and construction outlook for 1981? What shape will the anticipated recovery take? How will a sluggish economy affect the building materials and construction industries? These issues dominated the 41st annual Building Products Executives Conference held Oct. 23 in Washington. The meeting, devoted to the theme, "Strategies for the New Decade," was sponsored by the McGraw-Hill Information Systems Company. Over 500 building products and materials executives assembled to hear leaders from private industry, government, economic consulting practice, architecture, and urban policy research give their views on where the economy, and specifically the construction industry, is headed.

The featured speakers were Rep. Joseph Fisher, House Ways and Means Committee; economist Andrew Brimmer, Brimmer & Company; George Sternlieb, director, Rutgers University Urban Policy Research Center; Albert Marschall, commissioner, GSA's Public Buildings Service; Thomas Bullock, chairman, The CRS Group; Jordan Baruch, assistant secretary, Department [News report continued on page 58]

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of Commerce. Senator Richard G. Lugar delivered the luncheon address. Robert E. Farrell, chief of the McGraw-Hill Washington News Bureau moderated a panel discussion among four reporters on the Washington scene.

The general consensus among the speakers was that we will see a modest but slow recovery in 1981. The basic rate of inflation will remain high, 9-10 percent. The economy is weak and not likely to get strong again quickly. Some of the pressing challenges we must face are energy supply and demand, productivity, housing shortages, and limited availability of money.

Undoubtedly the highlight of the meeting was the annual economic forecast presented by George A. Christie,

vice president and chief economist, McGraw-Hill Information Systems Company. Christie maintains we are in a "hockey stick" recession—steep decline (10 percent in the second quarter) followed by a slight recovery (1 percent in the third quarter). The economy will have slow growth in 1981 with much of the momentum occurring in the housing industry. Nonresidential construction will not show signs of recovery until the fourth quarter 1981, with no real strength until 1982. Total construction contract value will increase by 25 percent in 1981 with at least 10 of those percentage points due to inflation. The other 15 percent will represent only a partial recovery from 1980's sharp decline. Christie said we are facing the "Paradox of the Eighties: never has our potential been so great; never have there been so many obstacles in the path of its realization." [BMC]

Calendar



Stoller photographs at Protetch Gallery.

Exhibitions

Through Jan. 10. "Tuscany: A Photo Essay" by architectural photographer Balthazar Korab. Robert L. Kidd Associates Galleries, Birmingham, Mi.

Through Jan. 12. Ezra Stoller Photographs of Architecture. Max Protetch Gallery, New York.

Through Jan. 18. Expressionism—A German Intuition, 1905-1920. The Guggenheim Museum, New York.

Through Jan. 18. Autonomous Architecture: A Selected Group of Contemporary Architects (including Botta, Eisenman, Machado, Rossi). Fogg Art Museum, Boston.

Through Jan. 18. Fifty plans and drawings of New York's Central Park by Olmsted and Vaux, from a recently discovered collection of original designs. Cooper-Hewitt Museum, New York.

Through Jan. 18. Edward Hopper: the Art and the Artist. The Whitney Museum, New York.

Through Jan. 22. Richardson and Olmsted in North Easton, Ma. A Mid-Nineteenth Century Architectural Sampler (prints of drawings of Post, Mead, McKim, Hunt, etc.). Gallery at the Old Post Office, Dayton, Oh.

Through Jan. 25. Architectural Fantasies: Creative Alternatives (from Maine's Wedding Cake House to the Washington Monument Condominiums). The AIA Foundation, The Octagon, Washington, DC.

Through Feb. 8. 20th-Century American Design (by Stickley, Saarinen, etc.). Brooklyn Museum, Brooklyn, NY.

Through Feb. 15. The Avant-Garde in Russia, 1910-1930. Hirshhorn Museum, Washington, DC.

Through Feb. 28. Rome Sweet Rome (17th- to 20th-Century prints). Spaced Gallery, New York.

Through Mar. 31. Holabird & Roche and Holabird & Root: The First Two Generations. Chicago Historical Society, Chicago.

Jan. 2-Jan. 30. Retrospective: Mario Gandelsonas/Diana Agrest. Yale School of Architecture, New Haven, Ct.

Jan. 9-Feb. 11. Architectural projects by Taft Architects, Houston, and Tod Williams & Associates, New York. The Young Hoffman Gallery, Chicago.

Jan. 14-Mar. 22. Pompeii: Works by French Architects in the 19th Century. [News report continued on page 62]

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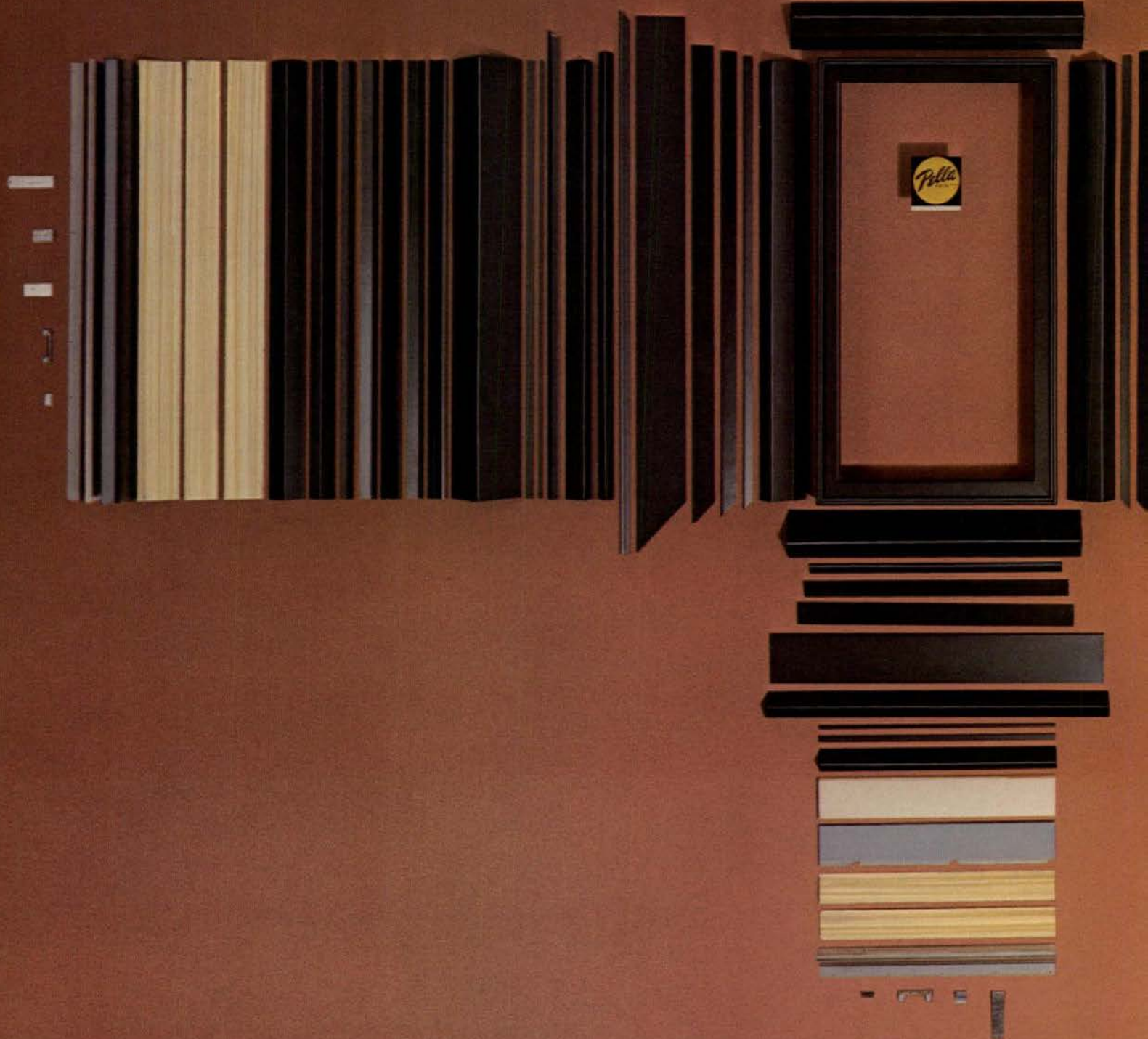
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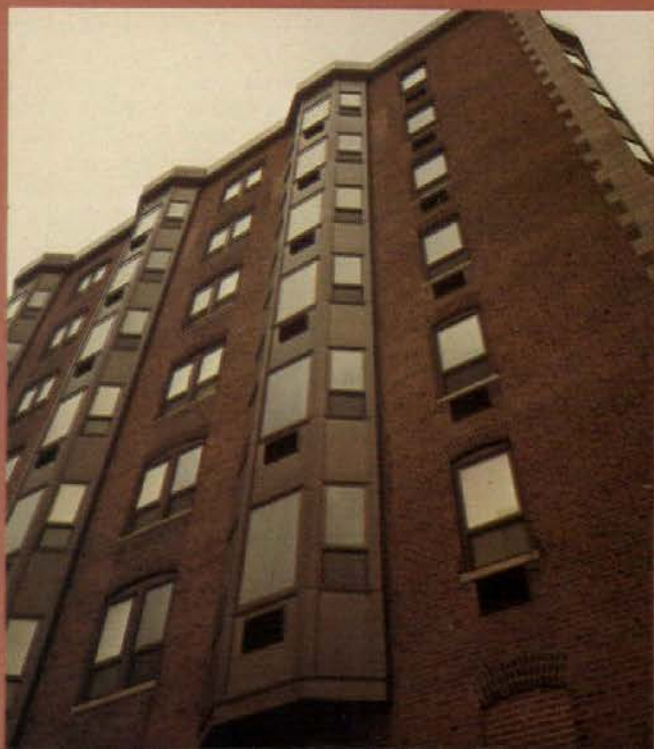
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École Nationale Supérieure des Beaux Arts, Paris.

Jan. 16-Feb. 7. Leon Krier: Architectural drawings for the reconstruction of the European City. Max Protetch, New York.

Jan. 27-Mar. 1. Alvar Aalto. H.F. Johnson Museum, Cornell University, Ithaca, NY.

Feb. 2-Feb. 20. Symbolic Relief: The Exploratory Architecture of J.H. Eccleston Johnson, Jr. (Texas Post-modernism). Southwestern University, Georgetown, Tx.

Feb. 12-Mar. 7. Charles Moore: New Church Building for the Parish of St. Matthew, Pacific Palisades, Ca. Max Protetch Gallery, New York.

Feb. 19-Apr. 26. Expressionism—A German Intuition, 1905-1920. San

Francisco Museum of Modern Art, San Francisco, Ca.

Apr. 5-Apr. 26. Function: Contemporary Viewpoints. The Fawick Gallery, Baldwin Wallace College, Berea, Oh.

Apr. 12-May 31. Late Entries to the Chicago Tribune Tower Competition. Walker Art Center, Minneapolis, Mn.

Ongoing. Permanent display of works of Paolo Soleri. ZONA, 484 Broome St., New York.

Competitions

Jan. 26. Mailing deadline for International Conceptual Furniture Design Competition, sponsored by *Progressive Architecture* and to be announced at NEOCON. For information, contact Furniture Competition, Progressive Architecture, 600 Summer St., Stamford, Ct 06904.

Jan. 30. Registration deadline for Design + Energy Student Competition.

Contact Association of Collegiate Schools of Architecture, Inc., ACSA Design + Energy, 1735 New York Ave. NW, Washington, DC 20006.

Jan. 30. Entry deadline for Portland Golden Triangle Competition, an open planning/design idea competition for the development of a major downtown site. Write D.L. Mason, L.A., Portland Planning Department, 389 Congress St., Portland, Me 04101.

Feb. 1. Registration deadline for American Society of Interior Designers National Awards Program. Contact ASID, 730 Fifth Ave., New York 10019.

Feb. 15. Submission deadline for the American Underground-Space Association competition for earth-sheltered and energy-conserving architecture. Contact AUA Design Competition, TLH Associates, Suite 900, Minnesota Building, St. Paul, Mn 55101.

Feb. 27. Submission deadline for Hexter Awards "Interiors of the Year." Entry forms and information available from S.M. Hexter Company, 979 Third Ave., New York, NY 10022.

Apr. 30. Entry deadline for Women in Design International Competition '81. Write WID International, 530 Howard St., 2nd Floor, San Francisco, Ca 94105.

Course application deadline

Jan. 15. Applications are being accepted for the 1982 annual courses for professionals in conservation, at the International Centre for Conservation (ICCR) in Rome, Italy. Contact the International Centre Committee, 1522 K Street NW, Suite 530, Washington, DC 20005.

Seminars, conferences, tours

Jan. 26-27. Passive Solar Workshop, Portland, Or. Contact: Passive Solar Associates, P.O. Box 6023, Santa Fe, NM 87501.

Feb. 11. "An Evening with Computer—A Simplified Presentation of the Most Potent Tool in Today's Design Office" will be presented by the New York Chapter of the Institute of Business Designers. Write IBD New York Chapter, Box 86, FDR Station, New York, NY 10022 (212) 940-0903.

Feb. 18-20. Seminar on Rehabilitation and Remodeling for Extended Life or New Life. The University of Chicago. Contact Center for Continuing Education, 1307 East 60th St., Chicago 60637.

Apr. 1-6. The Society of Architectural Historians annual meeting, Empress Hotel, Victoria, B.C. Contact the SAH, 1700 Walnut St., Philadelphia, Pa 19103.

May 26-30. Solar Rising, a special annual conference of the American Section of the International Solar Energy Society will include a trade exposition on conservation, at the Philadelphia Civic Center. Contact Linda Knapp, Mid-Atlantic Solar Energy Association, Research Institute for Advanced Technology, U.S. Highway 190 West, Killen, Tx 76541 (215) 963-0080.

[News report continued on page 66]



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Craig Buchanan photos

This is a factory?

Strong forms and bold colors give the Qume Corporation facilities in San Jose, CA, a distinctly un-factorylike appearance. On the outside, Inryco/wall IW-11A panels in postal blue and boysenberry are curved in graceful contours to break up the geometric rectangles of long, low sandstone beige walls. Inside, the same type of panels in boysenberry and suede brown frame a skylit garden atrium

that runs the full length of the building between office and plant areas. Qume Corporation wanted a pleasant atmosphere for its employees, and the design team won a 1980 AIA Honor Award in providing it.

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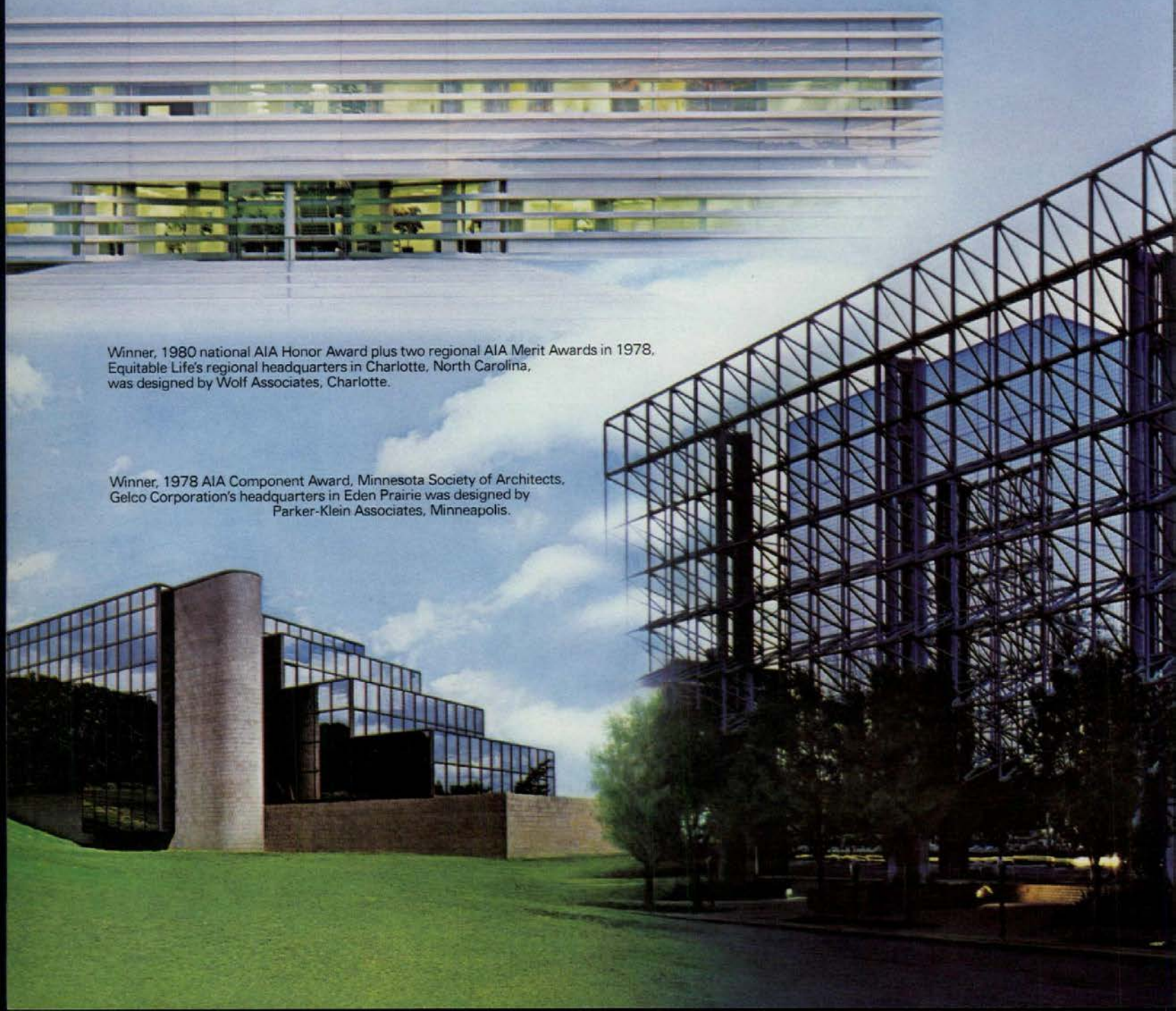
Combined with an ingenious heat recovery system, the insulating power of Solarban glass helps minimize heat loss—and gain—even in the extremes of Minnesota's climate. It's also the right glass to help the building meld with and mirror the peaceful, wooded lake-front landscape.

In warmer Charlotte, North Carolina, "solar belts" using alternating panels of aluminum and PPG clear glass gird Equitable Life's clean-cut regional headquarters. "A slick, brilliant use of glass in a simple but innovatively planned building," said the AIA jury.

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Winner, 1980 national AIA Honor Award plus two regional AIA Merit Awards in 1978, Equitable Life's regional headquarters in Charlotte, North Carolina, was designed by Wolf Associates, Charlotte.

Winner, 1978 AIA Component Award, Minnesota Society of Architects, Gelco Corporation's headquarters in Eden Prairie was designed by Parker-Klein Associates, Minneapolis.

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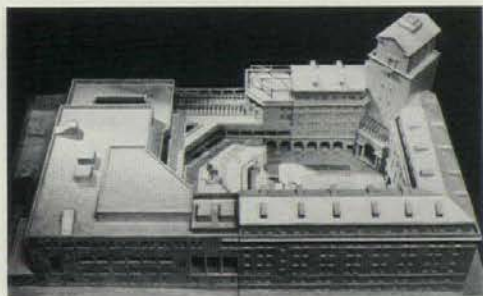


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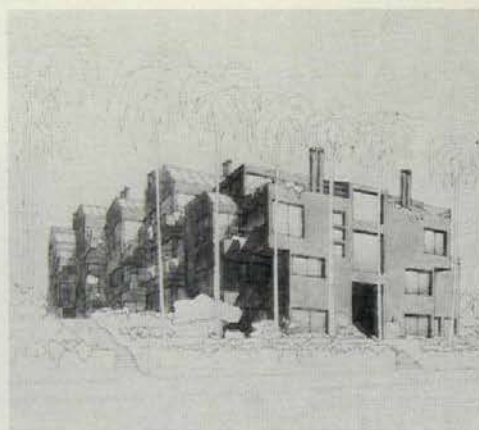
Winner, AIA Honor Award in 1980,
Bell of Indiana's Columbus Switching Station
was designed by Candill, Rowlett, Scott
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In progress

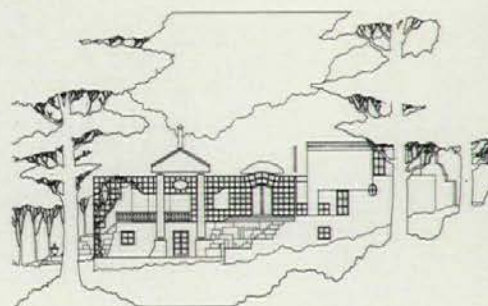


Jewish Theological Seminary Library Complex, New York. Architects: Gruzen & Partners, New York. This new library, replacing parts of the original 1930 Seminary building which were destroyed by fire in 1966, will complete the cloistered courtyard formed by the existing U-shaped building. The addition will include a four-level library, seminar space, and a large auditorium; the roof of the latter will accommodate lawns and terraces. The new lobby will be a two-story skylit space with an ornamental stair leading to the library. The addition is massed in sympathy with the original building, whose horizontal wings flank a corner tower giving access to the Seminary through an arched entranceway. The design maintains the brick and stone walls and the scale and proportion of the existing windows. Gruzen & Partners, one of the architectural firms invited by the Seminary in 1975 to analyze its building needs, won the commission for the new library in a competition.



Marina Peninsula Condominiums, Marina Peninsula, Ca. Architects: Flood, Meyer, Sutton & Associates, Santa Monica, Ca. This 13-unit condominium project has a "keystone"-form plan and is wedged into a hillside neighborhood of apartments and single-family houses. While the current market calls for luxury condominiums, this project includes three ground-floor, one-bedroom moderate income flats, to facilitate the governmental approvals process. The remaining units are two- and three-story townhouses. The keystone form maximizes views for the units and also for the neighboring buildings, as required sideyard setbacks are expanded. A colonnade of palm trees will surround the project. Construction will be of wood frame over a concrete underground garage, and the exterior skin will be painted stucco. Collectors for a solar-assisted hot water system will be integrated into the design of the sloping roofs, and holding tanks will be located at the rear of the garage. In addition to fan

coil units drawing heat from the central hot water system, the units will depend on the chimney effect of open stairwells within for heat circulation.

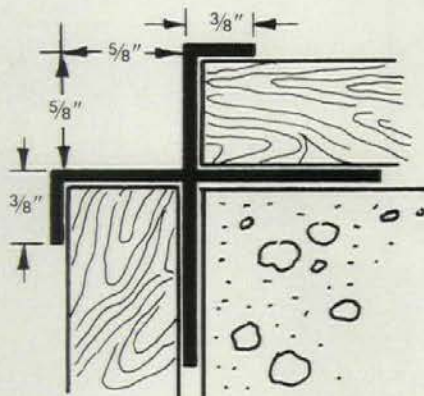


Sigal residence, Washington, DC. Architects: Martin & Jones, Washington, DC. This permanent residence for a family of four is located at the high, narrow end of a small, irregularly shaped site on a steep hillside overlooking the Potomac River. Rooms, arranged in an "L" plan, open onto a terraced garden with views over the river. Parents' and children's bedrooms are separated, and communal and entertaining spaces are formal, but open. The house and garden are organized by a series of major and minor axes, and these axial relationships are developed in elevation as a set of Neo-Classical pavilions—echoing the Neo-Classical monuments of the mall downstream—which rest on a brick base and are linked by a continuous trellis screen. The brick base extends into the garden to form a somewhat tight artificial cliff in some places and a formal plinth in others, a man-made/natural contrast which is repeated at other points, such

[News report continued on page 70]

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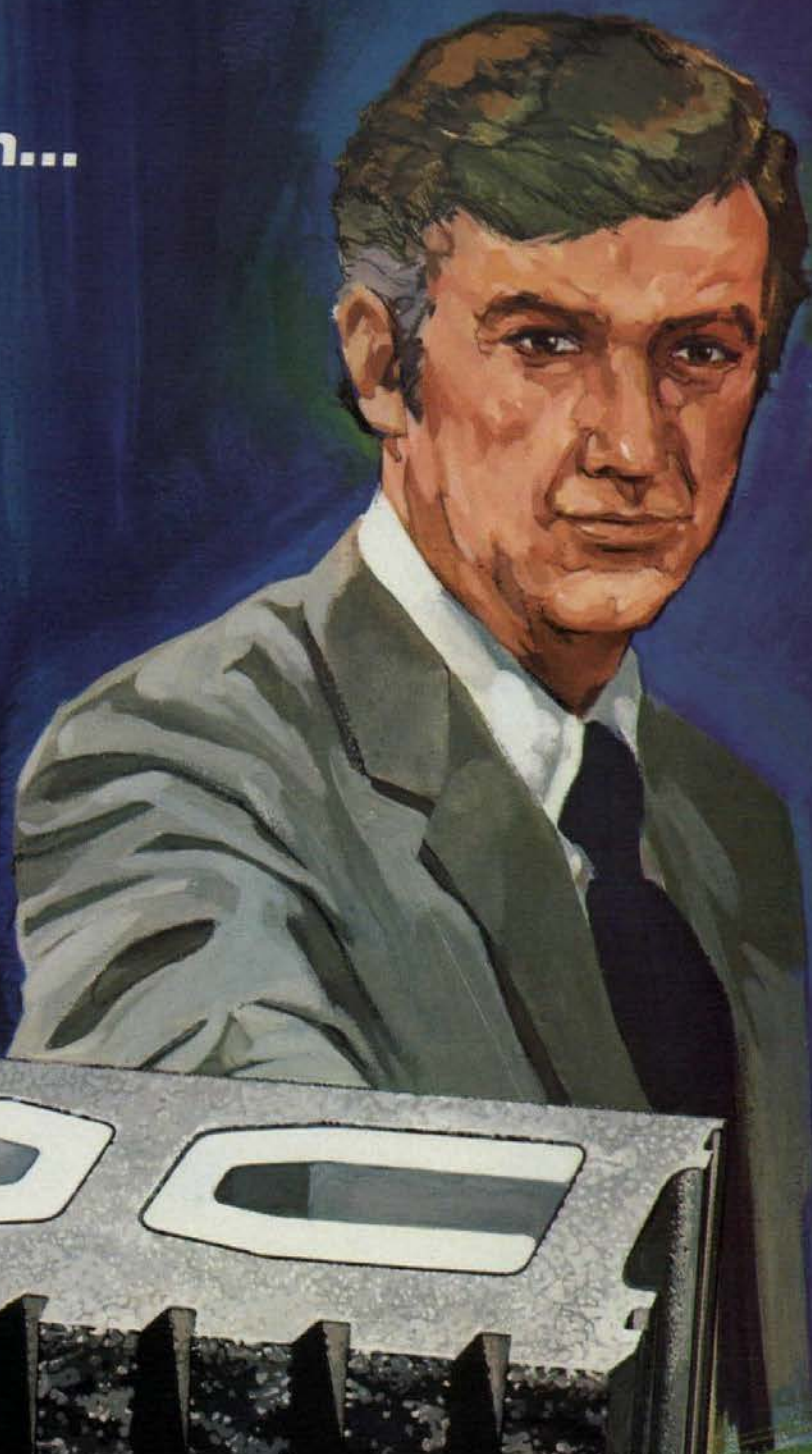
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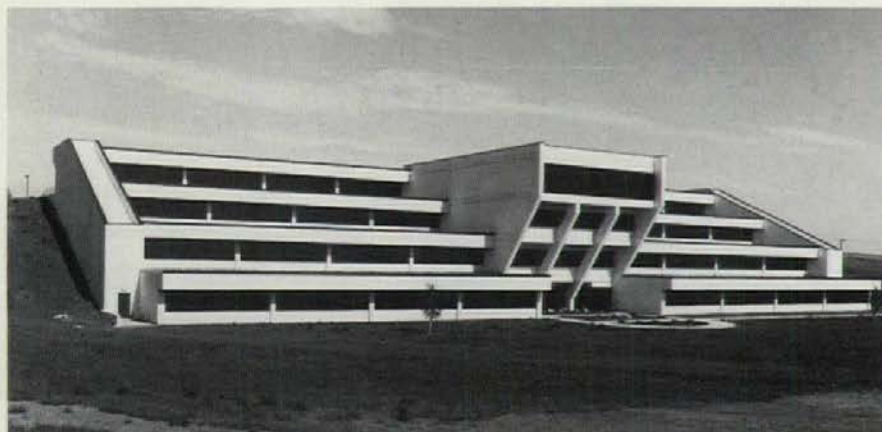
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ENERGY QUESTION:

How do you design a building that slashes energy costs and looks great?

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Create a stylish reinforced concrete building that helps reduce energy use by 50%.



The headquarters building for Basin Electric Power Cooperative in Bismarck, N.D., has become a landmark because of its imaginative styling. But the beauty of its reinforced concrete design is more than skin deep.

The building's energy requirements are about one-half those of a comparably-sized conventional building. The designers nestled the building into a hillside, so that all but one story is shielded from chilling northwest winds. All four stories on the southeast elevation are warmed by winter sun passing through the windows. Higher-angled rays from the summer sun are blocked by overhangs.

This passive solar design, along with heat pumps, allows the accumulation of enough heat to make supplemental heating unnecessary—even at sustained low temperatures in the range of -4°F.

A prominent feature of the building is a center section that gets

progressively larger on the higher floors. This section contains executive offices and board room and space for elevators and stairwells.

Besides its obvious contribution to energy conservation by moderating the effects of outside temperature variations, reinforced concrete also was chosen for its built-in fire resistance. Concrete also is monolithic and less susceptible to below-grade expansions and contraction. Finally, the economy possible with Grade 60 reinforcing steel contributed to the success of the project.

Reinforced concrete delivers fast, money-saving answers to the question of energy conservation. Write for Bulletin 7903.

ARCHITECT: Ritterbush Associates, Bismarck, N.D.

STRUCTURAL CONSULTANT: Loos & Traeholt, Bismarck, N.D.

GENERAL CONTRACTOR: Froeschle Sons, Inc., Bismarck, N.D.

OWNER: Basin Electric Power Cooperative, Bismarck, N.D.

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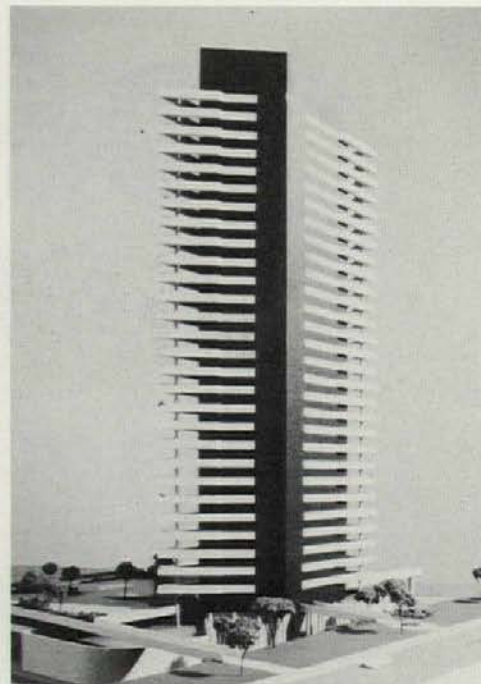
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News report continued from page 66

as in the dining room where an irregular cloud form contrasts with the regular inner dome. Structure is of wood frame and masonry: finish materials are brick and stucco for the walls, brick for the floors, wood trellises, and urethane dome.



Luxury condominiums, Long Beach, Ca.

Architects: Ladd, Kelsey, Woodard, Newport Beach, Ca. This 122-unit condominium building reshapes the basic, economical rectangular plan into a double trapezoidal one, to give each unit dramatic views to the ocean and marina. The structural system uses a ductile steel frame, with concrete over a metal deck. The exterior is a reflective glass curtain wall, with cantilevered precast concrete spandrels.



Human Resources Center, Ingalls Memorial Hospital, Harvey, Il.

Architects: Perkins & Will, Chicago, Il. The Human Resources Center will contain an in-patient alcoholism treatment facility of 48 beds, an in-patient psychiatric facility of 48 beds, and outpatient alcoholism treatment service. Two design objectives dictated the solution: to create an inviting, noninstitutional environment, the architects curved the spaces, including the lobby and the halls, gave all major spaces exterior exposures, and varied shapes and light sources in each unit; to provide the users with options, the architects worked with the building configuration, integrating circulation. [News report continued on page 72]

For High-Rise Buildings Using Gail Brickplate Panels in Steel Stud Framing!

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

Basic elements are shown in the cutaway drawing. Significant advantages are obvious:

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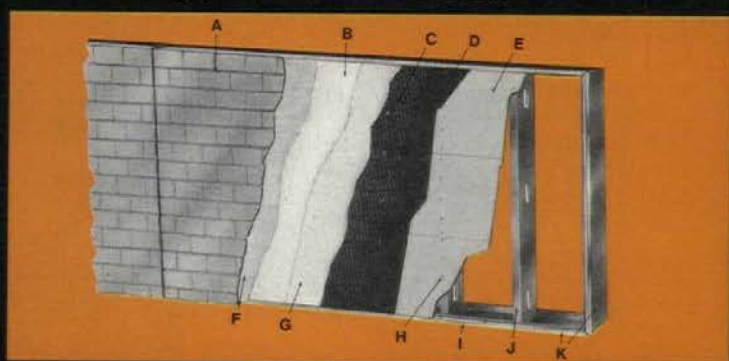
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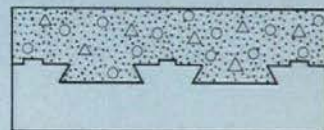
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A. Gail Brickplate tile (Keyback Design) B. $\frac{3}{4}$ " leveling coat of cement plaster with latex and chopped fiberglass strands C. 3.4 lb. self-furred Diamond Mesh Metal Lath (galvanized or painted where rust-resistance is required); secured to studs with self-tapping screws (washers optional) D. 15 pound tarred felt stapled to gypsum board E. Tongue and groove asphalt impregnated $\frac{1}{2}$ " thick gypsum plaster board (Installed horizontally, tongue up) F. $\frac{1}{4}$ " latex modified portland cement; scored, toothed, troweled G. $\frac{5}{8}$ " scratch cement plaster H. Gypsum board screwed to steel channels I. 1 $\frac{1}{4}$ inch plaster stop, tack screwed to frame J. 16 gauge steel channels, 16" to 24" on center K. 18 gauge welded 2" x 6" steel channel frame



CERAMIC TILE EXTERIOR - PRE-FAB ECONOMY

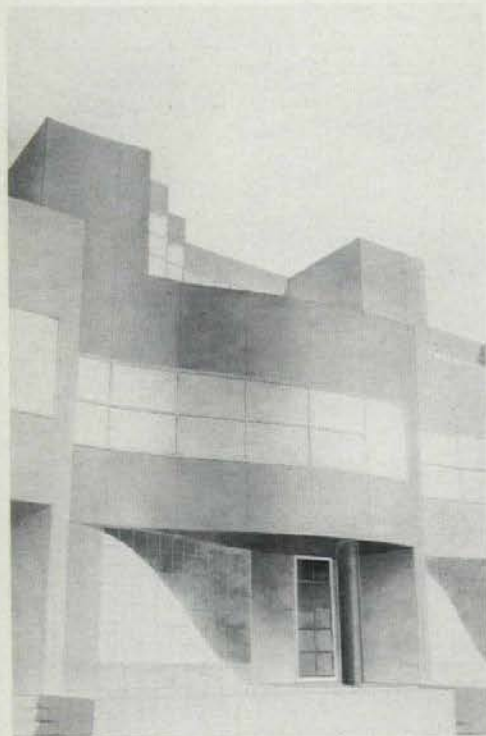
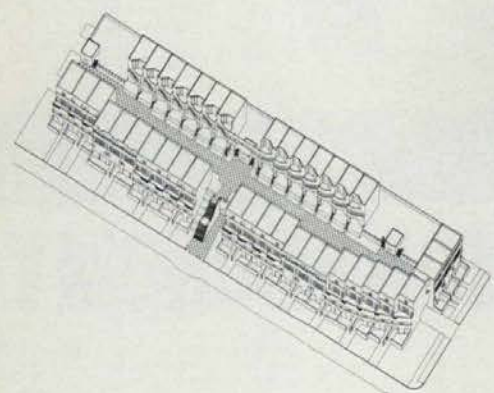


Frostproof Gail Brickplate is permanently locked into panels with keyback ridge design



The spectacular new Lincoln Court Building, Denver, Colorado. Architect: McOG Associates (Denver); General Contractor: Turner Construction; Tile Contractor: Ace Tile & Terrazzo (Denver).

tion and living space into one zone, and creating a variety of outdoor spaces. The massing of the center responds to contextual issues: large simple elements on the west relate to the hospital structure, and layering of building elements on the east is sympathetic to the adjacent residential neighborhood. The curved walls on the south and east define the street. Structure is steel frame, and finish material is a red masonry tile matching the existing hospital buildings.



Town House/Parking Complex for Illinois Institute of Technology, Chicago, Il. Architects: Schmidt, Garden & Erikson, Chicago, Il. This faculty and senior staff housing complex consists of 60 two-, three- and four-bedroom townhouses built over a 500-car garage. The complex encloses the fourth side of a small park formed by existing high-rise apartment buildings, and its garage acts as a buffer against the noises from the adjacent elevated railway. The park atmosphere is brought into the new complex by a grassy, treed, upper-level pedestrian street, lined with terraces and the back stoops of the two- and three-story units. The complex is based on the 24-ft campus model. Construc-

tion is of cast-in-place concrete, and exterior wall surface is of tile and stucco. The north façade breaks from the rectilinearity of the design by introducing curved surfaces which face the park and the internal pedestrian street.



Trenton Trade and Civic Center, Trenton, NJ. Architects: Geoffrey Freeman Associates, New York. This building will serve as a multifunctional performing arts center, convention center, and 9000-seat arena, and will be located in a suburban setting near the Delaware River, between the central business district and the state office complex. To form a transition from urban to suburban forces, the building's north façade will be rectangular and tight-skinned, and its suburban south façade will be curvilinear, with its skin giving way to exposed structure. The structural elements are planned to be overscaled in some cases to express public grandeur, a theme taken in part from an adjacent Neo-Classical limestone auditorium. Finish materials will be sandy precast concrete wall panels, highly textured, at street level, and glossy, rose-colored porcelain panels above. The roof will be of copper.



East Campus Housing, Columbia University, New York. Architects: Gwathmey/Siegel & Associates, New York. This housing project is located in the northeast quadrant of a superblock east of the main Columbia University campus and creates a large silhouette on the skyline over Morningside Park. Three elements are arranged in a U-shape around an internal courtyard, which serves as the

entry to the buildings. The western element is a low-rise building constructed over an existing platform structure, and the eastern element is a 20-story highrise. These two buildings contain a total of 156 apartments housing 665 people, in duplex, triplex, split-level, and one-story configurations. The northern element is a Humanities Center. Beneath the courtyard are spaces for student activities. Parking for 45 cars is provided to supplement an adjacent parking facility. Structure is poured concrete; finish material is 4" x 8" tile, in terra-cotta and gray color, with glass block.



The Charles Center Tower, Baltimore, Md. Architects: Conklin & Rossant, New York. The Charles Center Tower, for the Mullan Partnership and the City of Baltimore, will occupy the last remaining site in the Charles Center Redevelopment Project in Downtown Baltimore. It will incorporate 240 housing units, 100,000 sq ft of office space, and 20,000 sq ft of retail space. The original 1960s pedestrian system for the Center, which involved a two-level walkway, has been replaced in this scheme by a single intermediate ground plane, at the ground level of existing Lexington Street buildings, which are now going to be preserved. In front of the tower, at ground level, will be an amphitheater and an oval skating center. The ten-story office base will step back, providing glass-walled terraces. Above, the apartment tower is square in plan. The structure will be concrete, and the exterior finish will be a lightweight insulating metallic curtain wall of tan/pewter color.



SUN TRONIC HOUSE

...an excitement of elegance and inspired concepts

 **Count on Copper**



SUN / TRONIC HOUSE

Raise high again your expectations with the inspiration of Copper Metals

The exciting Sun/Tronic House™ features inspired concepts for the copper metals in an elegant home setting using the latest in residential solar energy and the precision of household management control provided by personal computers. Conceived and built by the Copper Development Association Inc., advanced market development arm of the copper and brass industry, the Sun/Tronic House is a dazzling showcase of sensitive design, superb building materials, tasteful home furnishings by W&J Sloane and clean-lined, efficient appliances from General Electric.

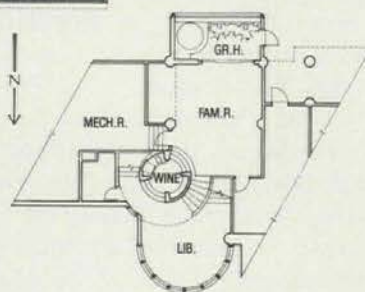
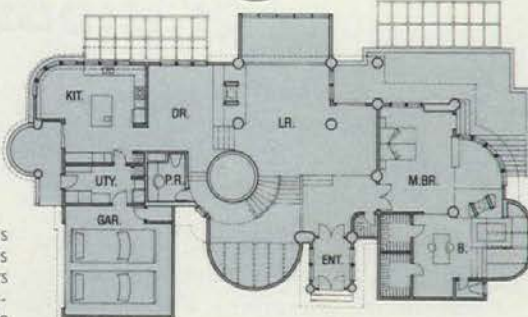
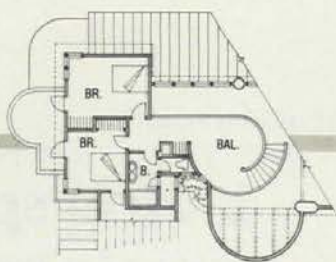
The Sun/Tronic House is a comfortable real home. The home is proof-positive that with sound energy management and personal computer technology, you can raise high again your expectations for elegant living — even in an era of tightening fuel supplies.

An interplay of active and passive solar systems in the Sun/Tronic House provides more than 60% of the home's space heating and hot water. Photovoltaic cells that directly convert the sun's power into electricity furnish a portion of the home's electrical needs.

Nature and the creative intellect work together brilliantly in the Sun/Tronic House to give a strong yet subtle statement of the sensibly elegant comfort that is available today. Natural building materials, the captured sun, and electronic systems in the Sun/Tronic House are aimed directly at convenience and efficiency, in an environment of confident good taste and carefree elegance. California redwood, upholstery fabrics of Herculon® olefin fibers and Karastan carpets, along with copper metals used throughout the house, provide an almost maintenance-free environment. In addition to copper solar equipment, the home's copper, brass, and bronze products are hallmarks of quality construction and design. These include copper plumbing and wiring and copper metals for architectural and decorative uses.

Home's southern exposure features copper solar collectors by Libbey-Owens-Ford, mounted at ground level for easy maintenance. They flank two-story Lord & Burnham greenhouse-solarium, flashed with lead sheet. Copper is first choice for solar panels because of its superior heat conductivity and corrosion resistance.





Snug in a hillside, north side defends against winter winds. Vestibule serves as airlock against drafts. Copper-clad doors by Stanley have magnetic weatherstripping. Siding is durable, clear-grade certified kiln dried California Redwood.

East and west elevations reveal the design versatility of the "Tough 12" high-strength standing seam copper roof. Copper roof was installed with new automatic forming and seaming equipment, reducing total cost. Underneath every roof surface: 9" of R-30 Owens-Corning Fiberglas® blanket insulation plus 1" of Owens-Corning Fiberglas® High-R sheathing.

Floor plan depicts Sun/Tronic's various room levels, spacious living areas and graceful, curved wall surfaces.





SUN / TRONIC HOUSE

Living spaces that radiate gracious warmth and comfort

Interior spaces of the Sun/Tronic House flow effortlessly into one another, charming the eye with change and surprise. The lines are gentle, soft, and curved, and yet there is sufficient angularity to establish a pleasing balance of grace and quiet strength.

Natural materials used on the exterior, such as redwood, slate, and copper metals, combine beautifully with the distinctive interior furnishings from W&J Sloane, the fine care-free fabrics of Herculon, distinguished furniture from Sherrill, and the lush Suede Manner broadloom carpeting from Karastan.

The plan of the Sun/Tronic House is eminently practical. The soaring ceiling takes advantage of convection currents; rising warm air is recycled down an energy column and circulates under the Vermont slate floors of the lower levels. The bold, brass-appointed fireplaces add steady warmth to the living spaces by recirculating heat to other rooms.

The semi-circular library is one-half level below the living room, and the microprocessor system from Apple Computer is located there. Continually monitoring data from electronic sensors, the personal home computer determines when to activate the solar systems and in what combinations; when to distribute space heating from storage; and when to operate heat pumps, solar cells, and night setback thermostats for maximum efficiency, comfort, and economy. The home computer also controls the security, fire sprinkler, and smoke detector systems.

Architects for the Sun/Tronic House are the Berkus Group Architects of Santa Barbara and Washington, D.C. Mechanical engineers are Mueller Associates of Baltimore. Contractor is, W. R. T. Smith, Wilton, Conn. Interior design is by MAC II of New York.

Vaulted space of living-dining areas is divided by soaring mirrored-brass, double-faced fireplace. Column in living room collects warm air that rises toward the ceiling and then directs it down for circulation in lower level "air floor." Vermont slate flooring radiates the warmth upward again.





Looking down from the balcony: W&J Sloane furnishings reflect traditional and contemporary taste. Sherrill sectionals and other furniture are covered in fabrics of Herculon®. Carpet is Suede Manner by Karastan. Brass end tables and cocktail tables are from W&J Sloane. Greenhouse-solarium provides solar-heated air that warms floors in family room and library.



Library's computer console monitors energy resources, lighting, fire and security protection. TVs with keyboards in other rooms have access to Apple II unit's 48K memory. The skylight (with its thermal-insulating shade to limit nighttime heat loss) opens the library to brighttime comfort.



Two-story Lord & Burnham greenhouse-solarium is part of passive solar system, which provides 15% of space heating. It's equipped with insulating glass, power fan ventilation, computer-controlled Roll-A-Way motorized insulating shutters. Redwood hot-tub invites the family. Masonry greenhouse walls, slate floors, copper tubes in the family room solar wall — all store sun's heat.

Open spiral staircase leads to the upper level balcony commanding exciting views of the living areas.



Family room focus is media wall with GE electronic home entertainment products including a 45" diagonal GE Widescreen TV, GE video cassette recorder. Also featured: 4-speaker stereo system, 13" TV with Apple II computer, seating group with stain resistant fabrics of Herculon.

Sectional group by Sherrill in the quiet corner of the living room stimulates conversation and relaxation. A brass-faced sliding glass door has easy access to the open redwood deck beyond.





SUN / TRONIC HOUSE

Sun-filled spaces bring good friends, good food together

Sun/Tronic's formal dining setting is gracious, light, and calmly ordered. Entertaining in this home makes evident Sun/Tronic's exceptional and elegant qualities.

The kitchen fulfills all the criteria for excellence and joy in food preparation. The work island with salad sink is convenient to all resources as well as the informal dining area. Windows of Libbey-Owens-Ford Thermopane® insulating glass in brass frames provide a warmth that blends beautifully with the copperware, the slate flooring, and the St. Charles cabinets that are finished with hardwood countertops and solid brass trim.

Computer efficiency comes to the kitchen also. A GE television equipped with keyboard is linked to the central computer. Simple instructions command the computer to display selected menus, recipes, and food and wine inventories and to forecast expenses.

GE's kitchen appliances and nearby laundry appliances,

all placed with an eye to work flow, were chosen because of their proven quality and energy conservation. Copper cookware is here also, the overwhelming choice of gourmet cooks. Copper has no equal for even-heating.

The GE dishwasher and microwave oven are real energy savers. The GE Food Saver Refrigerator has compartments for specific foods with their different temperature and moisture requirements. Color-coordinated fixtures like American-Standard's Fiesta dual-level sink add to the sheer visual delight of Sun/Tronic's kitchen.

St. Charles' cabinets provide fingertip access to utensils and storage areas. Gliding out at a touch are such units as bread box, ventilated trays for fruit and vegetable storage, and deep-base sliding shelves for bulkier items.

Antique mahogany dining table with place settings from W&J Sloane sparkles from sun through Thermopane® insulating glass by LOF set in brass insulated window frames. Brass-trimmed breakfast and brass service cart add touches of elegance.

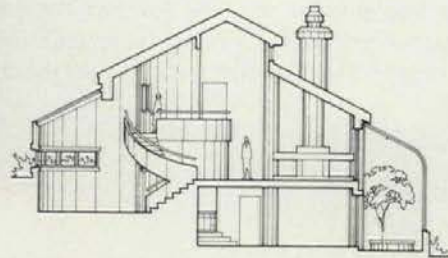




Fireplace opens at floor level in living room, at table height in dining room. Sheraton-styled mahogany table and floral print chairs from W&J Sloane contrast with the home's contemporary architecture. In-visible assist for pleasant dining: full-length lead sheet in walls to dampen kitchen sounds.



Island food preparation center is complete with salad sink by American-Standard. Note dual-handle brass pantry faucet. Professional-quality copper cookware functions beautifully, lasts a lifetime with easy care. Antique mahogany table and chairs from W&J Sloane echo curving corner window in charming breakfast nook.



Cross-sectional view of the Sun/Tronic House reveals an integrated architectural design, which blends secluded northern exposure with open, sun-filled living areas on the south.



Copper chafing dishes on the breakfast cast a mellow glow over entertaining. Delightfully sophisticated oriental art is from W&J Sloane.





SUN / TRONIC HOUSE

Special places in this home give new meaning to privacy

The Sun/Tronic House provides special areas of restorative privacy for family members.

Thoughtful zoning by the architect is where it starts. The master bedroom suite and the children's bedrooms are located at opposite ends of the house. Behind the master suite's double doors we find an adult retreat, providing basic human comforts with Sherrill furniture, Herculon fibers, and Karastan carpeting, all available at W&J Sloane.

It's still a solar environment, of course. The serene copper cylinders gracing the suite's southern window wall are passive solar heating units. Water inside the cylinders is warmed by freon charged heat pipes, which collect their heat from a copper absorber plate on the outside. Copper is exceptionally efficient for heat transfer. The wall between is insulated with Owens-Corning Fiberglas® insulation. The stored heat in the cylinders radiates into the room.

The fireplace and mantel are beautified by brass. It is opened to view on two sides, delighting the bed and sitting areas and the expansive bathing space beyond. Fitted brass-framed glass doors prevent heat loss. Outdoor air, not warmed room air, is used for combustion.

The master bath is, without contradiction, both simple and sumptuous, having a shower and sunken whirlpool bath by American-Standard. Twin pedestal island lavatories enhance the master bath area. The self-venting copper Sovent™ single-stack drainage system makes possible the design and location of island lavatories like these.

Sleeping as well as living areas in the Sun/Tronic House are protected by an all-copper fire sprinkler system.

Brass-accented fireplace separates sitting and bathing areas. Dropped floor puts hearth at comfortable sitting height. California redwood deck outside semi-circular brass windows echoes breakfast nook design at other end of house. Sherrill chaise upholstered with fabrics of Herculon supports a decorative pillow grouping.





American-Standard whirlpool bath is nestled between the brass-accented fireplace and plant-adorned shower area. Sun enters skylight to warm and brighten bathing area and dressing room. Computer controls insulator-shade under skylight.



Four-poster brass bed in a supremely comfortable setting of restrained luxury is located for privacy while commanding a view of the outdoor redwood deck and the fireplace-sitting area. Copper heat pipe wall is in background.

Multi-faced brass framed mirror serves separate American-Standard Ellisse Grande lavatories. Copper Sovent™ plumbing makes this island design possible. Beyond is another convenience: twin walk-in clothes closets.

Girl's and boy's rooms have upholstery fabrics of Herculan and Karastan Berbereau Prisms carpeting. Both can take active wear from energetic children and still keep their freshness. Overhead: practically invisible copper fire-sprinkler protection.

A dual-bowl pedestal lavatory from American-Standard in the second floor bath. Brass-framed shower enclosure reflects its elegance in mirror above lavatory.





SUN/TRONIC HOUSE

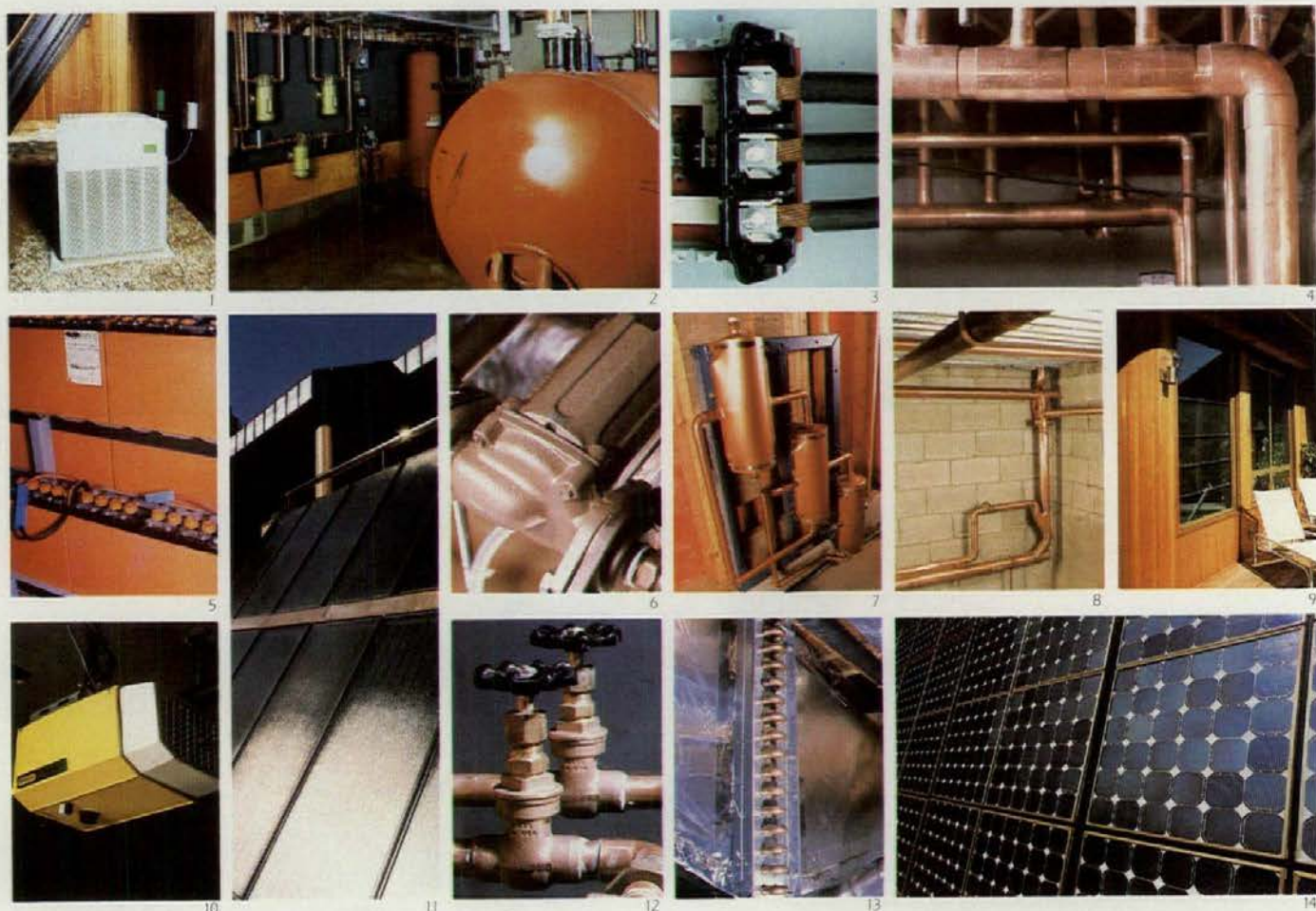
Copper keeps the energy flowing..

The Sun/Tronic House is certified by the National Energy Watch, the energy conservation program developed by the Edison Electric Institute. In this home, Owens-Coming Fiberglas insulation and LOF solar systems are put to full use to conserve energy.

All-copper liquid flat-plate solar collectors by LOF meet primary space heating needs by circulating sun-warmed water through copper tubes to the 1,000-gallon insulated tank, where its heat is stored and eventually distributed as warmed air. Passive solar systems, including a copper tube

water storage wall, a copper heat pipe wall, a Lord & Burnham greenhouse-solarium, and Vermont slate floors store and radiate supplemental heat. GE high efficiency Executive Weathertron® heat pumps supplement the various solar systems and provide the home's central cooling. Hot water for household use is supplied by the active solar system, GE Hot-Water-Bank heat recovery unit, and auxiliary electricity.

Solarex photovoltaic cells convert sunlight directly to electricity, which is stored in C&D's lead-acid batteries to operate pumps in the active solar system and to provide



1 One of home's two GE high efficiency Executive Weathertron heat pumps which provide auxiliary heating and cooling.

2 1,000-gallon tank is for solar storage and holds water supply for the fire sprinkler system.

3 Copper service lines carry electricity to house through ever reliable copper cables. Safe and sure copper building wire distributes power throughout the home.

4 Dependable, durable copper plumbing tube and fittings integrate liquid solar, fire sprinkler, water distribution, and drainage systems.

5 C&D lead-acid batteries store electricity supplied by Solarex photovoltaic cells.

6 Bronze-bodied pumps keep fluids flowing through advanced mechanical systems.

7 Heat exchangers transfer heat from liquid solar collectors to solar storage tank.

8 Copper Sovent single-stack drainage system takes care of home's sanitary requirements and provides architectural design flexibility.

9 Glazed black copper absorber plate captures sun's warmth and transfers it to freon charged copper heat pipes inserted in copper storage tanks.

10 For convenience and security: Stanley's new Premier garage door opener with safety reverse.

11 LOF all-copper liquid solar collectors supply space heating and domestic hot water.

12 Numerous types and sizes of bronze valves offer varied and flexible control of mechanical systems.

13 Forced air flows over copper fan coil unit through which circulates solar hot water.

14 The Solarex photovoltaic panels satisfy a portion of the home's demand for electricity.

and the home secure ... beautifully so!

emergency lighting and computer power.

Coordinating these active and passive systems is the computer program prepared by W.W. Gaertner Research. This software also handles other aspects of environmental control, monitors fire and intrusion protection, and facilitates computer access to the family's personal files.

Copper's traditional uses in plumbing and electrical systems are basic to the functional performance and security of the Sun/Tronic House. For these uses, copper has always been the standard of quality and true economy. In addition,

copper's role in countless consumer products, lighting fixtures, and other applications inside and outside the home demonstrates an extraordinary versatility. But its story does not end there. The good news goes on — for the future is bright as to the plentiful supply of copper in the USA. Natural abundance plus recycling make the USA essentially self-sufficient in copper. So use it with complete confidence — as is done so beautifully in the

SUN TRONIC HOUSE



1 Copper-clad insulated entrance doors offer an impressive and elegant welcome.

2 Mirrored brass switchplates conveniently group controls and lend a classic decorative touch.

3 All-copper passive solar heat pipe wall provides warmth to master bedroom.

4 The attractive and durable polished brass threshold is reflected in copper entrance door.

5 Roll-formed insulated brass framed projection windows enclose LOF Thermopane insulating glass.

6 Convenient to entertaining is the wine rack and wet bar highlighted by stunning brass and glassware.

7 New automatic techniques make copper roofing's installation quick and economical. Copper provides a maintenance-free and permanent cover.

8 All-copper fire sprinkler system is essential for protection of home and family.

9 Beautiful copper cookware and modern microwave oven offer kitchen efficiency — with status.

10 Computer controlled motorized Roll-A-Way Insulating Security Shutters provide heat control and security.

11 Brass faucets complement pedestal lavatories.

12 Crisp computer keyboard provides finger-touch control of home's key functions and family records.

13 Shimmering brass door hardware adds luster to every entry throughout the house.

14 Antique brass trim holds firm the rectilinear lamp, one of many which grace the home's exterior.

15 Brass railings serve to keep continuity of decorative theme throughout home.



SUN / TRONIC HOUSE

Products and concepts from the following participating sponsors are featured in the Sun/Tronic House with the thought that they will assist you in your own quest for the good life.

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Circle 353 on reader service card.

Copper Plumbing Systems
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Brass Furniture — The Heirloom of Tomorrow
Circle 355 on reader service card.

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SUN / TRONIC HOUSE



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28th P/A Awards

The first P/A jury to face more than 1000 entries, this year's group of dedicated professionals gave two top awards—one in urban design/planning and one in research—and recognized a total of 31 entries.

When the eight jurors for the 28th P/A Awards program gathered here in Stamford one morning in late September, 1049 submissions were sorted and stacked by category, awaiting their examination. Like all P/A juries in recent years, they soon divided into three preordained groups—two jurors applying themselves to the 123 urban design/planning entries, two others taking on the 52 research entries, and the remaining four wading into the 874 submissions in architectural design. On the following day, all eight regrouped to share final decisionmaking.

Though the number of entries was slightly higher (last year's total was 928) the character of the entries this year was not substantially different. There were, as always, many entries in the image of winners from recent years. There was also clearly a response this year to P/A's announced intention of leaving the door open to a broad range of design attitudes. Last year's architectural design winners had tended to affirm the stature of a well-defined avant-garde. This year's jury was chosen with the expectation that they would not only respect these avant-garde positions, but would give comparable attention to other concerns—notably energy-conscious design.

Serious attention to energy concerns was assured by the inclusion on the jury of two members with special expertise in the field: Richard Stein on the architectural design team and Ralph Knowles on the research team. The result is not a great increase in the number of winners that are obviously energy-related, even though these were amply represented among the entries. The special interests of these two jurors in such entries seems to have been balanced by their more discriminating judgment of energy-conscious efforts. Perhaps more significant is the respect for energy concerns to be found in most of the winning entries.

In the area of architectural design, this year's winning choices do represent a shift in attitude from last year's. There is, overall, more evident consideration of factors such as programmatic relationships and orientation, less emphasis on historic allusion or formal manipulation—though some winners conspicuously defy this generalization. In urban design and planning, however, there seems to be a continuation of the interest of recent juries in incremental, socially responsive efforts and in proposals that are formally strong. The area of research, as represented by P/A winners, seems to follow its own, rather steady trajectory.



Although there is remarkably little correspondence between last year's 28 winners and this year's 31, two firms do appear on both lists. The only firm recognized for architectural design both years is Dewberry, Nealon & Davis, Joseph Boggs/Studio (p. 140); perhaps their kind of rationalist design—minimal, yet distinctly symbolic—represents a meeting ground for otherwise divergent design viewpoints. The second firm recognized both years is Venturi, Rauch & Scott Brown—last year for a house design, this year for a planning proposal (p. 98) that represents the firm's other equally important and philosophically related activity.

Many others among the winners—13 out of 31—are by firms that have won recognition in the program at some time in its 28-year history. The one firm with the rare distinction of having four winning entries this year, Skidmore, Owings & Merrill, was the source of three premiated projects in the very first P/A Awards program, back in 1954. It says something about the range and dispersal of this firm today that its four winners represent four different offices, and that two are in design, two in planning.

In a time of unpredictable evolution—of doubt and dissent in the field of architecture—there are strands of continuity and encouraging signs of regeneration.

[John Morris Dixon]

Urban design and planning

This year's jury discussed in detail the criteria on which they based their judgment of the entries and debated the various issues now facing urban design and planning.

Edmund N. Bacon is an architect and city planner who, as executive director of the Philadelphia City Planning Commission from 1949 to 1970, conducted one of the most extensive downtown revitalization efforts in the U.S. in the post war years. He is currently vice-president of Mondev International, Ltd., in Montreal.

Jacques Brownson was the project architect and chief of design for the award-winning Chicago Civic Center in Chicago (a joint venture of C.F. Murphy and Loeb, Schlossman, Bennett & Dart). Currently he is director of the State Buildings Division for the State of Colorado.



Edmund Bacon.



Jacques Brownson.

The jurors in the category of Urban Design and Planning, Ed Bacon and Jacques Brownson, discussed with P/A their observations about the 123 submissions, the level of quality, the range of issues they addressed, and the questions they raised.

Both jurors remarked on the level of submissions; in fact, Bacon was "frankly surprised" at the range of high quality entries. But both jurors had very definite ideas about the criteria important for their singling out the six entries for premiation.

Bacon: I was looking for designers who are able to see the larger structure of the city and relate their individual concerns to that larger structure. I was most interested when they graphically demonstrated their sensitivity to the relationship between the parts and the whole, particularly where there was a continuity established between the very broad regional overview of the situation and the intermediate stages, down to the detailed forms of buildings. There is often a tendency to create a regional plan with a lot of fancy colors and then design specific portions of the project with no connection between the specific and the general. The submissions we have chosen, on the other hand, represent that continuity of approach with the integrated relationship of the parts to the whole.

Brownson: I kept looking for the "people" in these plans—where the users fit in. Lots of the drawings give you little idea that there are people involved in those activities going on in the buildings being planned for them. By isolating planning into a lot of subsystems, we often lose the knowledge that the end product will be used by people. One of the things we were looking at was that continuity of activity needed to keep a city vital and integrated. On the larger scheme of things we need to avoid creating nine-to-five cities; on the more specific level of say, civic center projects, we have looked at the way people might actually use that space on their lunch hour, or in their various activities. The reason for building a civic center is not to create "theme" eating places or knicknack shops, but to include certain kinds of activities that will relate to the whole spectrum of activities that the people who work and live there are involved in. I don't mean the spectator-sport kind of activities. I mean the normal, day-to-day things we all do.

Bacon: A number of the presentations demonstrated this sense of the larger structure in a real way, showing that the thinking of the planners focused on both the larger structure and the particular parts, as well as how those specific pieces relate to the historical context of the existing urban form.

Brownson: Regarding actual presentations, you do have to be very selective about how to communicate your thinking. Documents that depended extensively on verbiage or exploration of side issues suffered. It is better just to convey key ideas. Those schemes that showed the architects and planners had simplified the

concept and the approach showed it in the drawings and presentations. It became clear that they knew where they wanted to go. Other schemes that might have been excellent would beat around the bush before getting to the main idea. If there is an idea there, then the submission should clarify it. The scheme should show the designer is able to anticipate what is going to happen and provide for that event in the framework of the plan being developed. We talk about an overall structure and yet all of a sudden we have new cities where we haven't thought about what makes them a place for people to live in.

Bacon: There are some formal considerations that showed up in this year's schemes. No longer are architects afraid to think in terms of axes and symmetry. No longer are they afraid to work within a frame of reference of historical precedents. This can be seen very clearly in two of the winners (see pages 90 and 94). Also using a natural resource like a river that had been one of the determinants of city form, but had been lost, proved to be a stimulus for a formal response.

Brownson: An important thing to consider in plans is the relationship of housing to the revitalization scheme. The new plan has to become part of the total activity of the area. Many restoration efforts end up being cosmetic jobs because that kind of component has not been sufficiently considered.

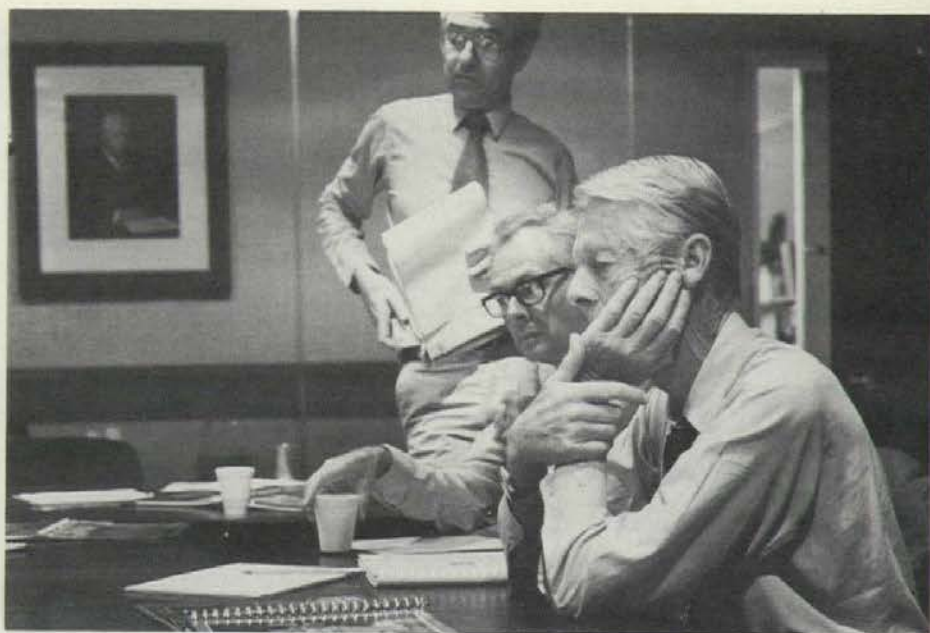
Bacon: Speaking of preservation, I was impressed by the substantial number of very finely conceived projects directed to the enhancement, protection, and preservation of small towns. Attention to their historic character, quality of life, and the provision of places for people to enjoy were commendable. I was pleased to see the expression of this new awareness.

We were also very impressed by the number of submissions dealing with the process under which plans were made, the process involving the people of the neighborhood and especially children in the neighborhood. This was not an artificial public relations effort, but was often functional and built into the way of planning and thinking. Similarly, there were some very good efforts to deal with low-income neighborhoods.

Brownson: Sometimes the scale of the project in relation to the resources available—the economic support—was at variance. It takes a certain amount of wherewithall to keep up park areas, to fill the restaurants, and that problem must be faced as the plan is being put together.

Bacon: You are gloomy about that. My experience has showed me that if you get some significant ideas going, the resources or the support will be forthcoming. The main problem I find is the paucity of ideas.

Brownson: Make no grand plans with half-baked ideas.



Bacon: The phrase "grand plan" is often used incorrectly. It is fashionable to reject the "grand plan" idea as an obsolete concept and as an authoritarian intrusion of individual will. This notion has been very inhibiting to the design profession for a great many years. In reality the concept can be inclusive and broad in scope. This year people submitting to the P/A urban design and planning program here were not afraid to think in broad scale—and in courageous terms. They were not worrying at every point whether resources would be available to carry out the plans, but allowed their imaginations to extend richly into the depths of the fabric of the city. The limitation of resources and the need to deal in small individual projects are no reason for limiting our thinking. We can develop plans of sweeping dimension and decisive form that appear to require enormous resources to carry them out, but in reality can be executed incrementally through small projects completed one after another over a period of time. Yet they produce cumulatively the results we wanted in the beginning.

Granted the goals of the plans may change. But any plan worth its salt has built into it the characteristics of responsiveness to those changing goals. That is a crucial quality of a plan. The way one develops a concept that has the ability to respond to change built into it is quite a technique. I wrote the book *Design of Cities* to address just that point. But again, it is important to look at historical examples and see how they work. The architectural profession in general doesn't do that. And the architectural education it receives hasn't encouraged that sort of thing. But the evidence of an emerging awareness about planning is now showing in these schemes.

Brownson: In looking at planning on a broad level, however, we must take into account the "marginal" things that we have allowed to deteriorate—land, water resources—all key elements for generating planning schemes. And we cannot keep on taking farm land to convert it to a continuous sprawl. We must come back to a "grand" view of things that includes preserving and using our natural resources.

*John Dixon, Ralph Knowles,
Edmund Bacon.*

Steven K. Peterson

A study for a hillside development connecting a university and the town is designed to relate to the planning frameworks of both while reinforcing the contour of the site.

Credits

Architect: Steven K. Peterson, New York; Barbara Lit-tenberg, Rob Busler.

Client: Schickel Design and Development Corporation, Ithaca City Planning Department, America The Beautiful, Inc.

Project: University Avenue Development, Ithaca, NY.

Program: Propose future development of hillside area which would include about 800 d.u.s, an 80,000-sq-ft theater, educational, conference, and meeting center with a 1500-seat auditorium, and a 150-room hotel with tennis courts, swimming facilities, and parking.

Site: A slope on the East Hill between the Cornell University campus at the top of the slope and the town of Ithaca, approximately 1 mile long, $\frac{1}{4}$ mile wide. A clearly defined rectangular zone, it is bounded by two major gorges in the area. While the area lies between two grids—the city grid and the more monumental formal composition of the university—it is relatively undeveloped.

Solution: The plan seeks to link the two already existing areas in a formal arrangement that establishes continuity of space. This overall design structure of the plan will organize and clarify the disparate conditions within the site itself, as well as relate to the organization of spaces around it.

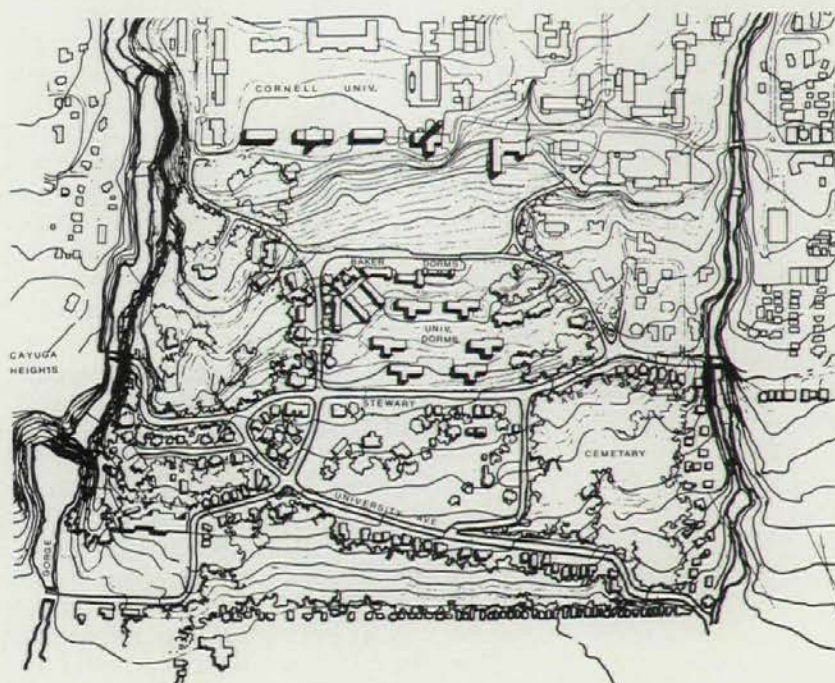
The study locates new housing below the existing University Avenue with access and parking provided by a new road. Three-story walk-up garden apartments will be built in a party-wall type of building stepping down the hill. Pedestrian walks and steps parallel the slope. Additional housing related to the university dormitories is proposed to be built

above, in a series of four- to six-story slabs. The open lawns of existing fraternity houses would be developed as an overlook park, with recreation serving the housing. The plan also calls for converting the Ithaca Gun Company property (when no longer viable as a factory) into a park and amphitheater. Three major parks are also suggested, with a continuous series of paths and open spaces connecting them and the gorges.

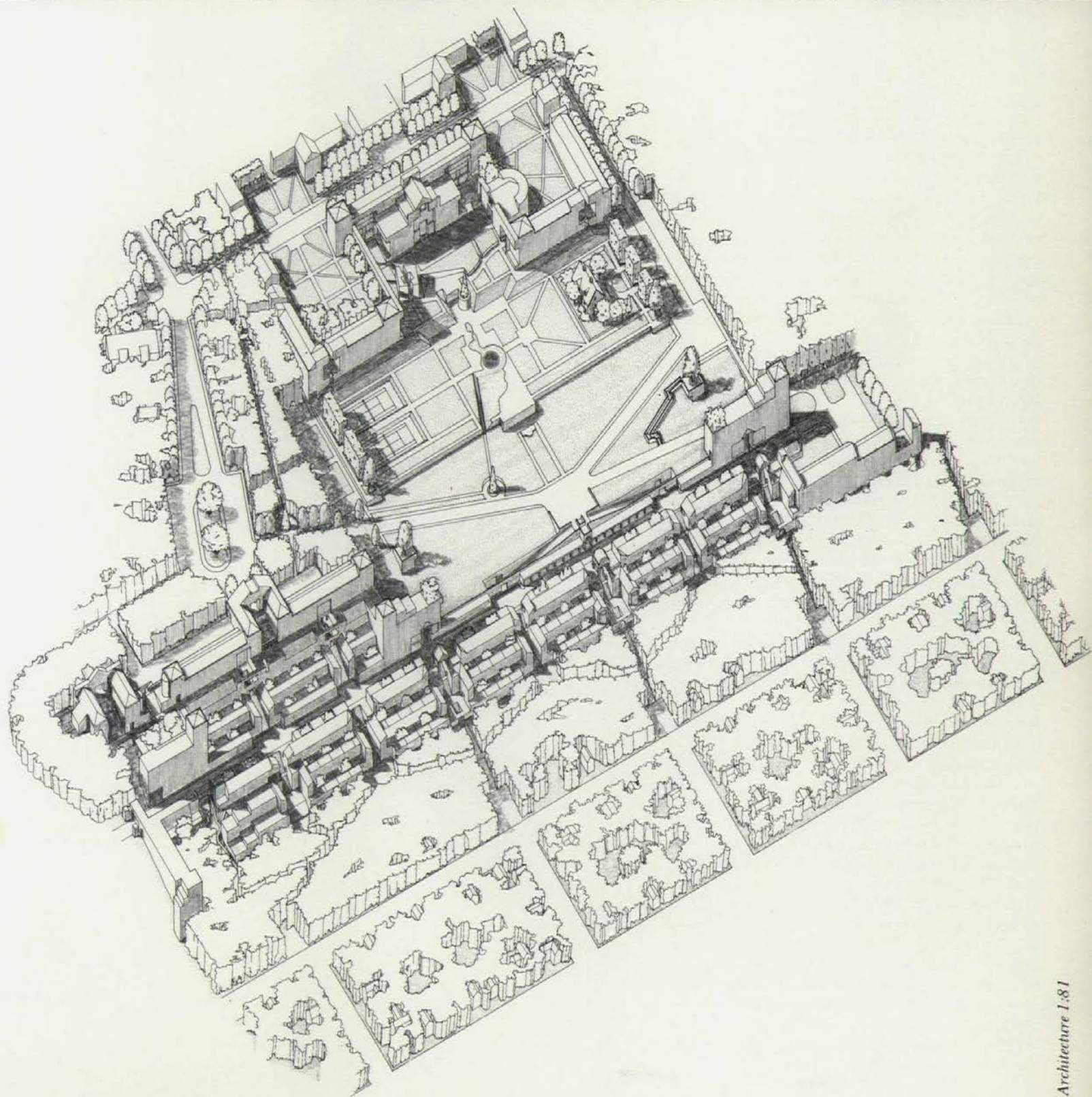
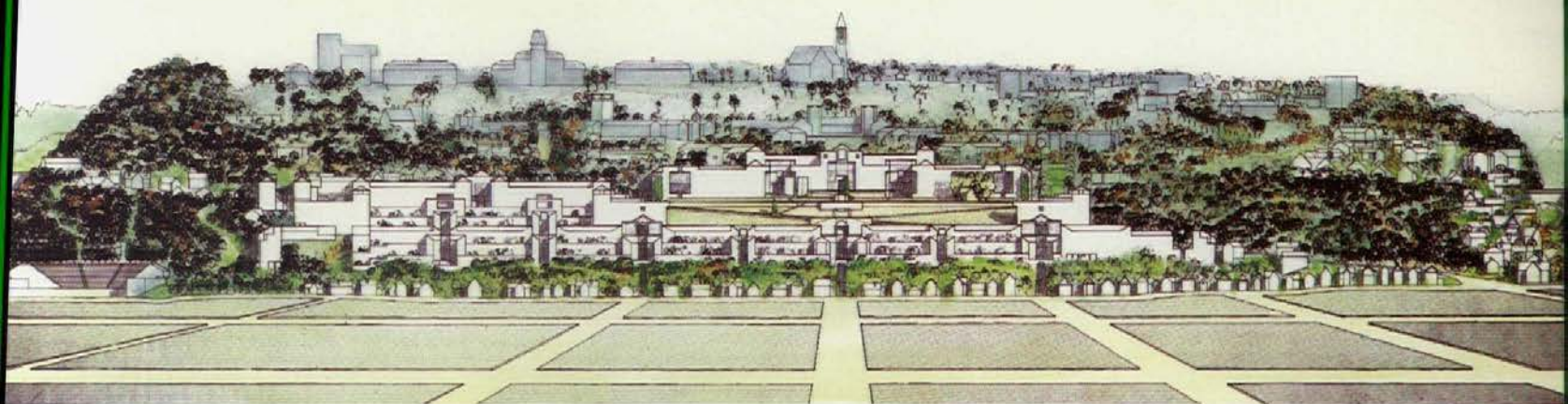
A series of horizontal reference planes and lines extend across the face of the hill to guide the plan conceptually. Building would be both perpendicular and parallel to the slope, producing a continuous, even development along the three major streets. A maximum cornice height of buildings would be established. This layered pattern, with constant skyline profiles of the aggregated buildings all arranged on the same orientation, will relate to a principal front edge horizontal plane of the overlook park. The park area is defined by a retaining wall and edge landscaping; the back edge of the park would be controlled by a hard line of new housing. Along the length of these various horizontal layers of building, axes of open space link the stepped layers.

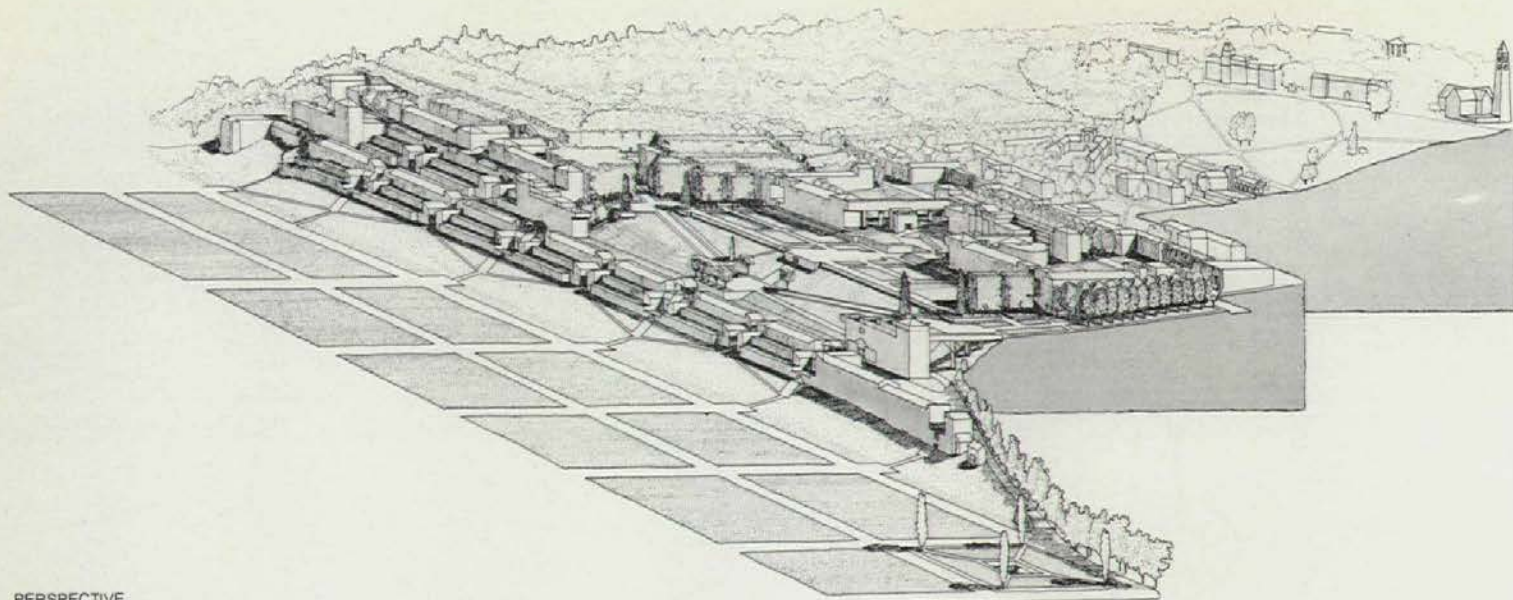
Jury comments

Bacon: I am astounded by the proposal. It is a very carefully conceived extension of history. Look at the way it seizes the tower of the uni-



TOWN OF ITHACA





PERSPECTIVE

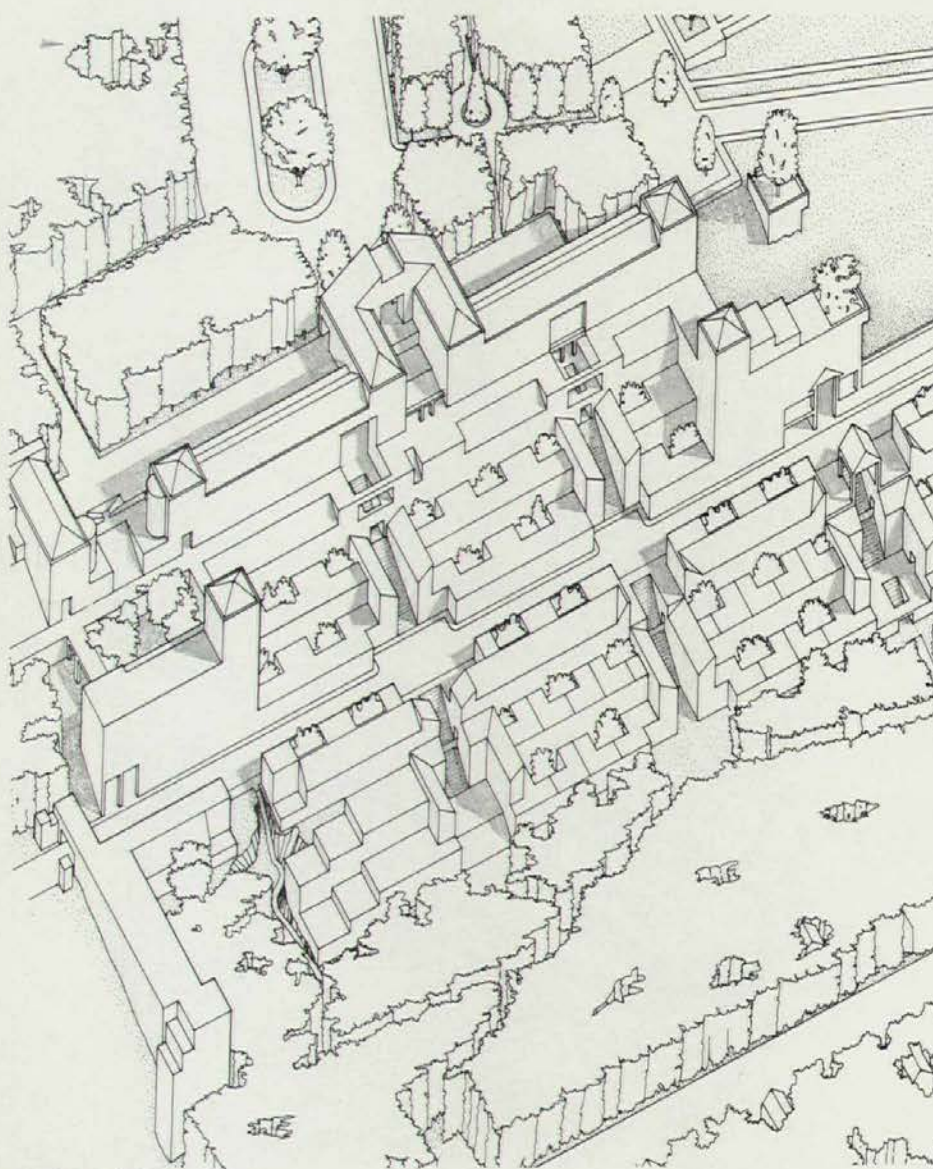
versity library as the focal landmark at the top of the hill and then carries the axial organization down to the town of Ithaca on the flatlands through a series of buildings, terraces, and courts. It is very extraordinary. The long extension of housing along the edge of the town gives a strong base to the hill. The architect uses symmetry and terracing reminiscent of older towns yet indicating a new way of thinking about larger urban design problems. It successfully incorporates all parts into the whole while showing awareness of its position in the total setting of Cornell and Ithaca.

Brownson: The siting of the theater with its commanding view of the area is quite good. I originally questioned the large section of buildings extending across the rise of the ground immediately behind the residential area, but I think in this case it is fitted into the contours of the site well enough to form a backdrop to the area. I also like the use of the large open space for giving one a sense of orientation and connection to other spaces.

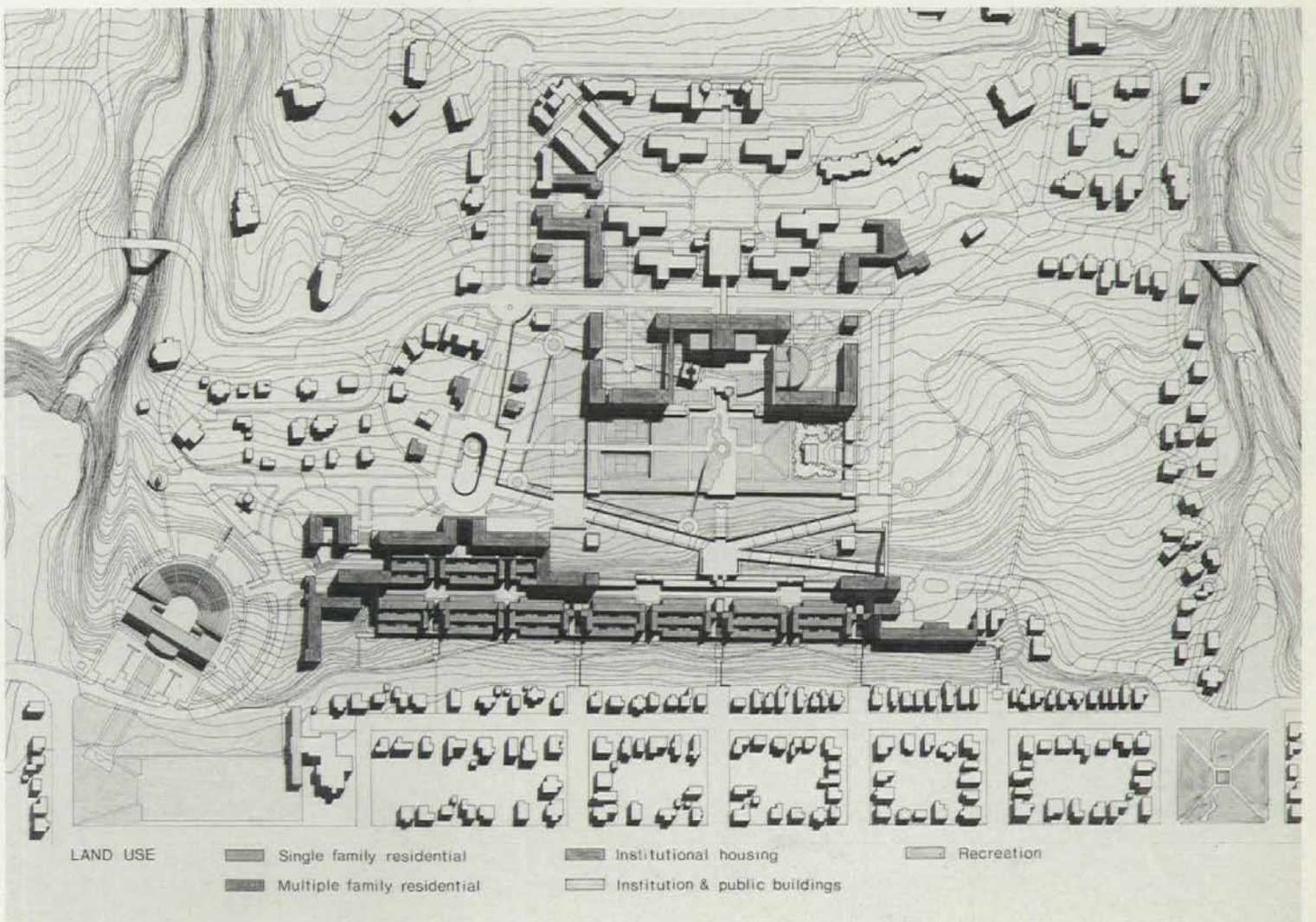
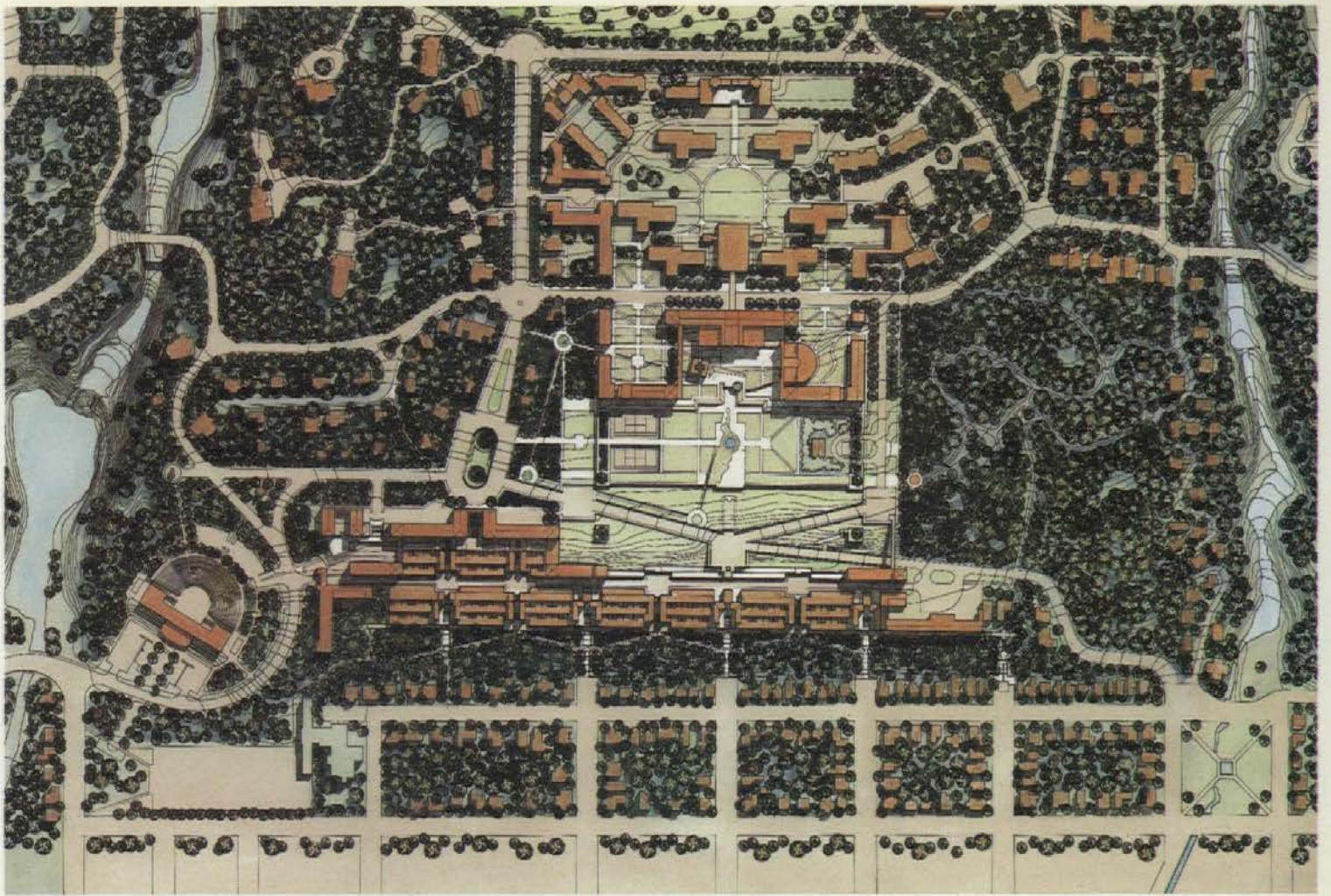
Bacon: You always know where you are in both space and time. You know where you are in relation to the library tower and the university, as well as the war memorial. You have a sense of positioning in both time and place.

Brownson: This foreground group of buildings should be built so that it will hold together; it is an important element visually and should really last.

Bacon: This development forms the conjunction of the town with the university, which has heretofore been somewhat disconnected because of the steep hill. The development binds the two in a very constructive way. The architect has deliberately put asymmetrical elements in the very heart of the scheme—on the formal axis. This can be done, but requires incredible skill. I'm not convinced he has really pulled it off. It would be safer and more traditional, if you have a strong axis, to continue the symmetry into such details as a traditional shape for the pool. Other than that I think the plan is excellent.



AXONOMETRIC DETAIL



Skidmore, Owings & Merrill

A plan for revitalizing the downtown area of a state capital employs classical principles in its planning.

Credits

Architects and planners: Skidmore, Owings & Merrill, Washington, DC. David M. Childs, partner in charge of design; Richard Giegengack and Marilyn Jordan Taylor, associate partners; Brainerd Taylor, Wilfried Taubert, and Milo Meacham, senior designers.

Consultants: Barton-Aschman Associates, traffic and transportation.

Client: The Providence Foundation, the City of Providence and the State of Rhode Island.

Project: Capital Center, Providence, RI.

Program: To revitalize the city's core and plan for development around the state capitol building, on land made available through removal of railroad tracks. The downtown is to emerge as an important commercial center, while the architectural heritage of the area is retained. The Union Station, on the National Historic Register, is being studied for reuse possibilities such as a retail mall flanked by new office building construction. A new small terminal will be built to serve the realigned tracks.

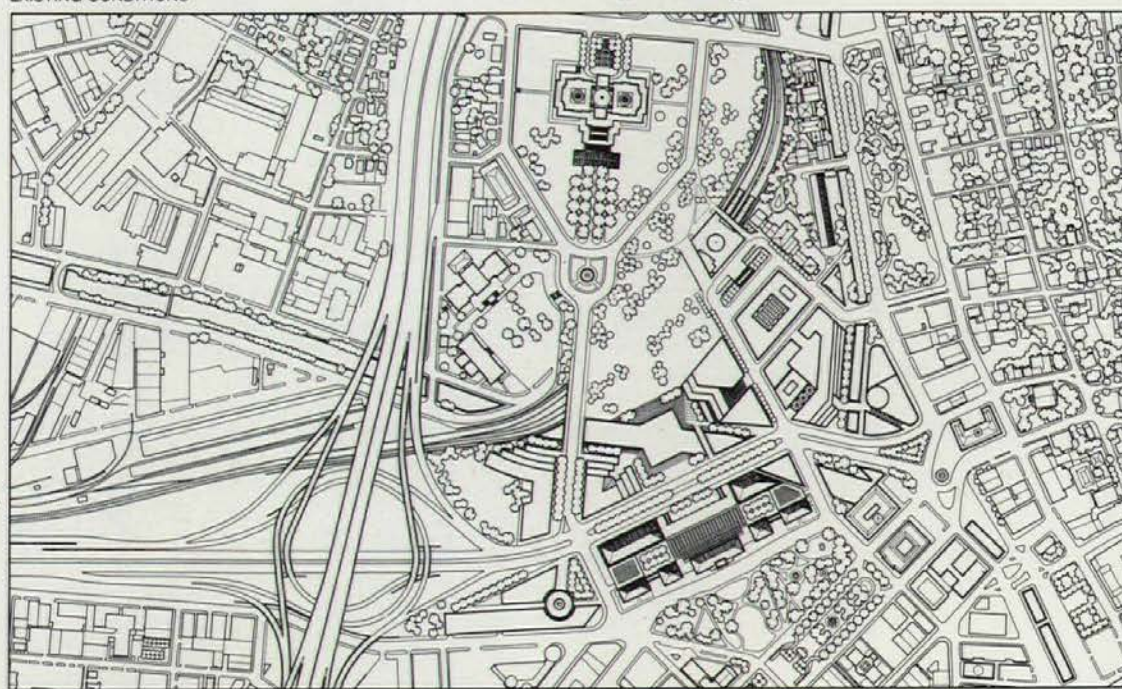
Site: 60 acres of land have become available because of a decision to close the Union Station and realign the railroad tracks. Currently

the site contains a railroad viaduct, parking lots, and two small rivers. To the south is a commercial core, to the north, the State House, to the east, historic houses.

Solution: Through the design of the public infrastructure—parks, waterways, and streets—a sequence of axial and symmetrical relationships is created. These Neo-Classical principles are meant to give the center and its development a visual order. Three streets extend from the existing town on axis with the State House dome. Future development will reinforce these corridors, making the streets important not only for the buildings they serve, but for the views framed at either end. The design calls for tilting the ground plane



EXISTING CONDITIONS



ILLUSTRATIVE SITE PLAN

up toward the State House, leading the eye more emphatically toward the dome, and allowing parking and relocated railroad lines to be invisibly inserted below grade.

The Woonquatucket River is widened into a water park, recalling the cove that previously existed. The old Union Station, with a new terrace on the north, serves as a portal and belvedere to the open space beyond. Private development will be confined to the periphery of the area, a cone-shaped apron spreading 110 degrees and focusing on the State House dome.

The plan mandates building to the street line and establishes a range of building heights, along with land uses, parking, and pedestrian circulation. Architectural expression is left up to the developer.

Jury comments

Bacon: The Providence plan attacks a jumbled situation in the middle of a city where the capitol building is almost disconnected from the rest of the city visually and functionally and the area between is crisscrossed by railroad lines and expressways. It sorts out the complex confusion of circulation and gives dignity to the old station. It makes a visual connection between the old station and the capitol with a reconstruction of a river that itself had gotten lost amidst the railroad and commercial activities. Making a formal basin for the river gives it a new status, a visual significance, and a sense of place. It takes the axis of the capitol and extends it formally into the heart of the downtown area, nailing it down firmly there so that there is a visual and functional connection between the two. The plan will improve tremendously the significance of Providence and its meaning as the capital of the state. The design is a very sensitive, extraordinarily courageous, large-scale vision for reconstructing the city.

Brownson: The plan shows a close analysis of the possibilities present in the existing situation, a situation that appears very chaotic and disorganized. By doing certain things, such as widening the space with a large square and steps to the water's edge, the plan makes the most out of the place. The attempts toward framing views and vistas are important. Even the placement of trees in front of the capitol defines the space instead of letting it be frittered away in all directions. Most governments don't realize that landscaping is something that suffers from budget constraints, but is in most instances one of the most important elements for the livability of the city.

The perimeter buildings are very important in the whole space. Careful consideration should be given to their design quality. If the new railroad station built off to the side of the capitol is not designed well, its prominence will have a destructive effect on the surrounding area. It has to be very well done. Also there are still some large parking lots that are retained off to the side which should get attention, along with the group of older buildings that could be adapted to changing uses.



VIEW TO NORTH FROM EXISTING RAILROAD STATION



Skidmore, Owings & Merrill

A master plan for a new town in Saudi Arabia creates a strong planning framework that can allow for change and growth while integrating social, formal, and environmental concerns.

Credits

Architects and planners:

Skidmore, Owings & Merrill, San Francisco. John Kriken, project director; Howard McKee, codirector, Jeddah; Thomas Aidala, project designer; Norman Kondy, Brian Lee, Barbara Maloney, Kathrin Moore, Joel Tomei, project design team; Charles Shapiro, project planner.

Consultants: Saudi Arabian Parsons Limited, management and engineering; Arthur D. Little, Inc., manpower and institutional requirements; DeLeuw Cather International, traffic and transportation; Dames & Moore, environmental and applied earth sciences; Tetra Tech, Inc. coastal geology.

Client: Royal Commission for Jubail and Yanbu, Saudi Arabia.

Renderer: Roger Boyer.

Project: Yanbu New Community, Saudi Arabia.

Program: Plan for a new community of 150,000 people, which will be geared to petrochemical production and shipping. The new town plan must provide residential, commercial, and social facilities for the town plus educational, recreational, and religious centers in a framework flexible enough to function during construction.

Site: 5500 hectares five miles south of existing town of Yanbu in the northwestern part of property reserved for industry on the Red Sea.

Solution: The town is planned to grow clockwise from the town center, with the center and the first residential area to be mutually supportive. The layout of the town is based on a street grid, oriented in a north-south direction. Community services are distributed throughout the town in a hierarchy of mixed-use clusters. Neighborhood mosques, shops, health clinics, and schools are clustered within residential areas. The town center is the area of densest development and contains buildings more than four stories high. Arterial roadways leading to the center are lined with three- and four-story apartment clusters. The lowest density neighborhoods—two stories high—occupy the greatest portion of the land area.

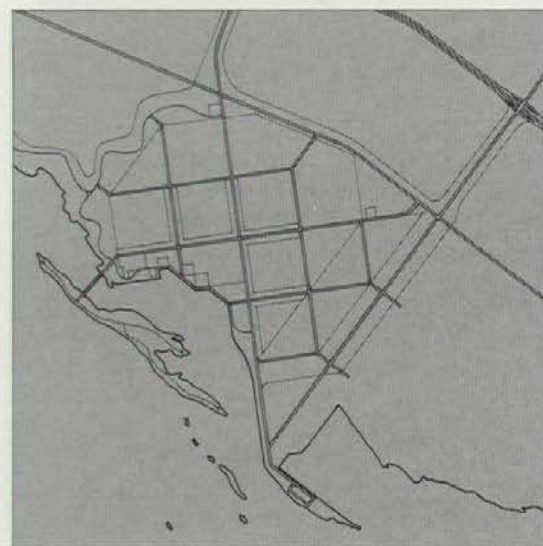
Circulation is provided by special kinds of roads (entry, coastal, and express) plus a public jitney and bus system. A buffer zone of open space surrounds the town, and the grid

provides the framework for the system of small parks in addition to larger "special" parks on the water. The residential sections are planned according to densities based on a modular concept for combining different housing types and densities and neighborhood services in various mixtures.

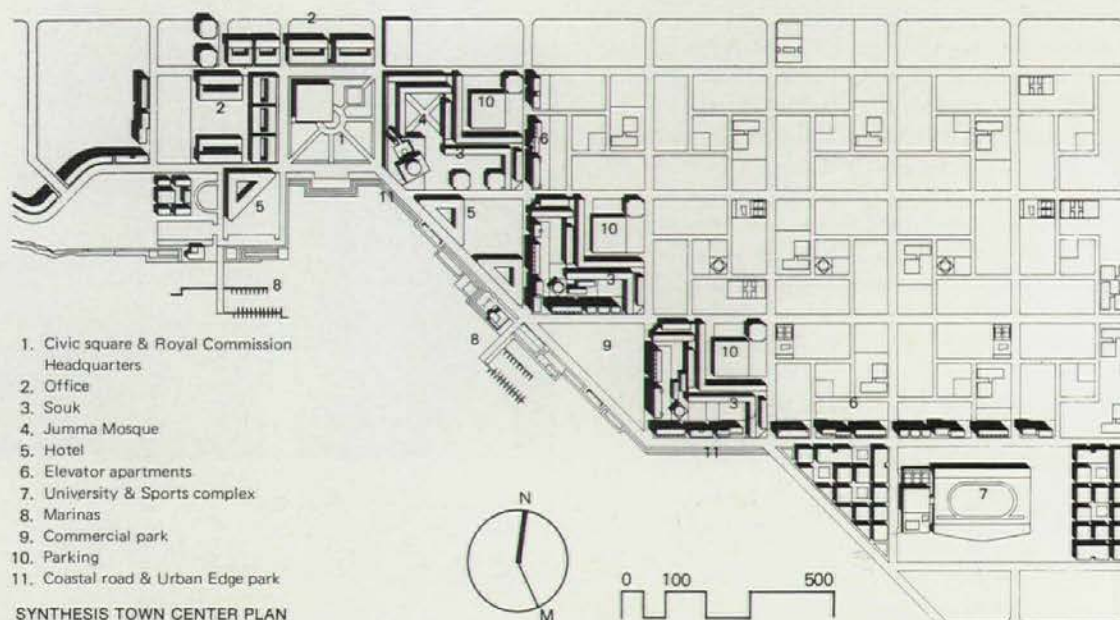
Housing types include single-family dwellings, villas and townhouses, and walk-up apartments.

Jury comments

Bacon: Yanbu is an astounding illustration of an overall concept which is clear, sharp, vividly defined, graphically presented, logical, simple, memorable. The plan moves sys-



SITE PLAN ↑N 1000/300m



SYNTHESIS TOWN CENTER PLAN

1. Civic square & Royal Commission Headquarters
2. Office
3. Souk
4. Jumma Mosque
5. Hotel
6. Elevator apartments
7. University & Sports complex
8. Marinas
9. Commercial park
10. Parking
11. Coastal road & Urban Edge park

tematically through the various scales of development—large to small—and into the characteristic parts of individual neighborhoods that compose the entire community. The establishment of the hierarchies of open spaces, circulation, and land uses provides a rational basis for the design. It translates that thought into systems of housing and a building expression. All parts are related to the whole—the climatological considerations, the techniques of building, the formal aspects.

Brownson: The project relates closely to the Industrial City concept of Tony Garnier where smaller parts are systematically built up into the overall scheme. The siting of the city along the gulf and the manner in which the city reflects its location and siting are very lyrical. There is a real recognition of geographical place and region.

Bacon: The intersection between the formal grid and the irregular arc of the waterfront is quite interesting. The building forms express their function and their position in the overall system in an unusual way. It is extremely impressive.

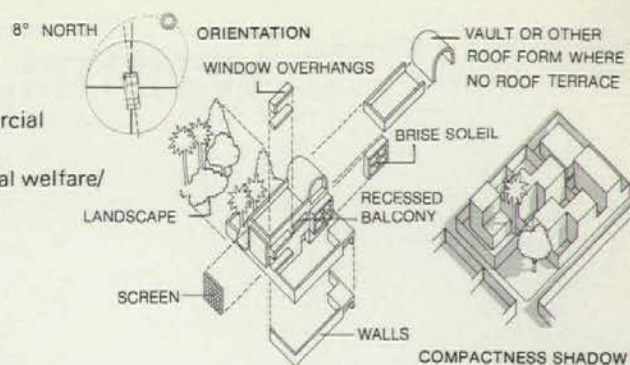
Brownson: The clarity of the idea comes through in the document, the entire way it is put together. There also is considerable flexibility within the plan, flexibility to allow for change while keeping within the framework.

Bacon: Individual architects can work on pieces of the scheme and stay within the overall system. They have a freedom of operation while working within the overall scheme. The system is so defined, you should get harmonious results.

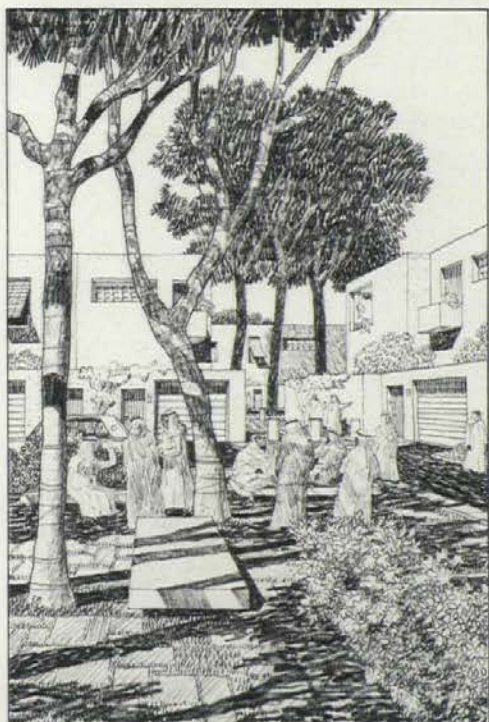
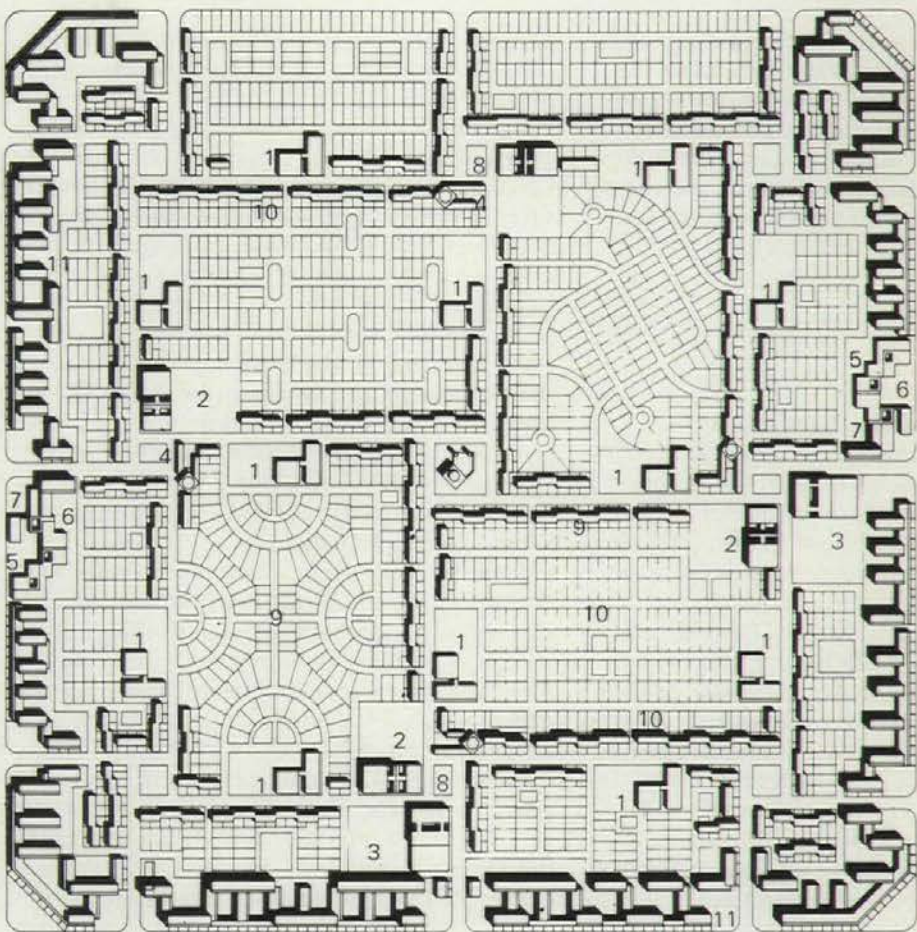
Brownson: Also important is the recognition that the city doesn't spread on forever. There is a limit established by the buffer of open space at the perimeter. The coastal reserve space is particularly important as well; for example, the use of the city edge. The climatological considerations too are impressive; the importance of orientation of buildings and their relationship to landscaping, to prevailing winds—natural means of cooling.

1. Elementary school
2. Intermediate school
3. Secondary school
4. Mosque & local commercial
5. Arterial commercial
6. Municipal services/Social welfare/Clinic
7. Cultural center
8. Major open space
9. Villas
10. Townhouses
11. Walk-up apartments

SYNTHESIS RESIDENTIAL MODULE



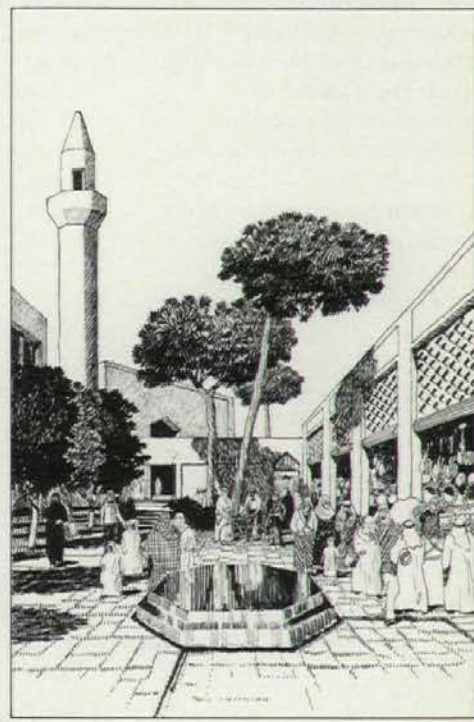
CLIMATE CONTROL FENESTRATION AND SHADING DEVICES



Single family housing.



Houses around courtyards.



Neighborhood cluster.

Venturi, Rauch & Scott Brown

A study for the preservation and revitalization of an old mining town suggests moderate steps to bolster the economy and involve the citizenry in piecemeal restoration and renovation of an intact architectural past.

Credits

Architects: Venturi, Rauch & Scott Brown, Architects and Planners, Philadelphia. Denise Scott Brown, partner in charge; David Marohn and Mary Yee, project directors; Eve Baltzell, Tom Bernard, David Brisbin, Frances Hundt, Mark Hewitt, Arthur Jones, Missy Maxwell, Janet Colesberry, James Timberlake, and Robert Venturi, design and planning.

Consultants: Thomas P. Reiner and Stanley Tarailia, economic consultants; Pennsylvania Historic and Museum Commission, U.S. Department of Interior, U.S. Department of Housing and Urban Development, Borough of Jim Thorpe, Mauch Chunk Historical Society, and Pennsylvania Department of Transportation, District 50, research assistance.

Model photographer: Tom Bernard.

Renderer: James Timberlake, David Brisbin, David Marohn, Missy Maxwell.

Client: Carbon County (Pa) Planning Commission, Albert U. Koch, Charles E. Wildoner, and Bud Angst, commissioners.

Project: Historic preservation and commercial revitalization plan for the historic district of Jim Thorpe, Pa.

Program: The historic district of Jim Thorpe, called Mauch Chunk, still retains its Victorian heritage from the time when it was a thriving mining town served by canals and railroads. The town would like to keep its architectural heritage intact while still enabling commercial revitalization and allowing for outdoor recreation and tourism.

Site: Located in the Pennsylvania Poconos, the section of the town under study is the lower portion of the Old Mauch Chunk Historic District. This section, containing over 100 properties of mixed use that formed the central business district, was organized along a main street, or Broadway.

Solution: The study deals with both economics and design, focusing on the pragmatic aspects of town planning such as the parking inventory, as well as on historic preservation. The architects sought participation in the planning so small-scale entrepreneurs and individual owners—and not just large corporations—can implement the private portions of the plan. The approach of the plan is modest, incremental, and one in which the recommendations for design unity are made through "suggestion," not regulation.

The architects propose that the town adopt a position of "moderate" economic growth of increased recreation and tourism and downtown business development. Incremental changes would include repaving areas with brick, introducing a Victorian street lamp and

bench for public areas, and installing a certain kind of signage for identification.

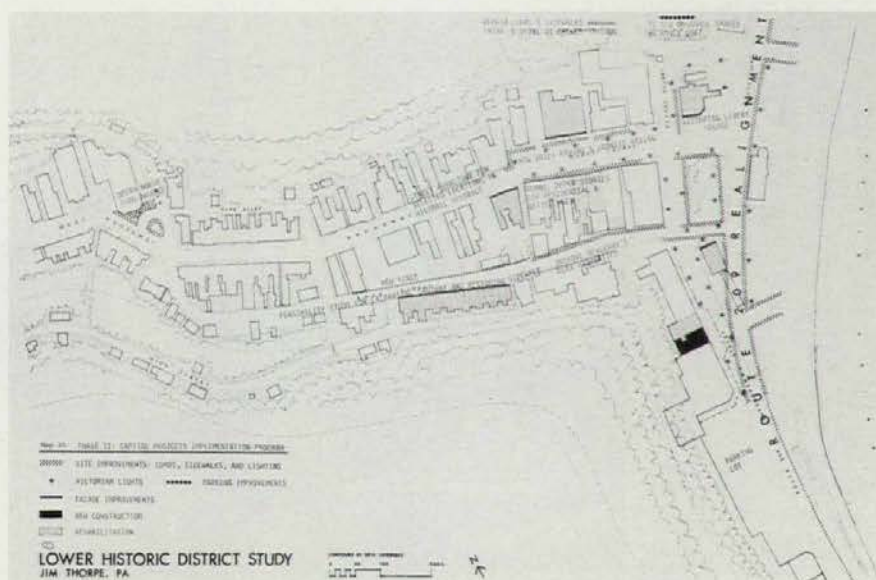
By conducting an inventory of the town's architectural heritage, the architects offer a detailed analysis of the architecture and propose a façade improvement program, a façade easement program, with guidelines for restoration, repair, and renovation of the architecture. The report summarizes a number of loans, grants, and tax incentives provided by the government along with the suggestions for a nonprofit agency with full-time staff to be created to guide the program and help raise funds.

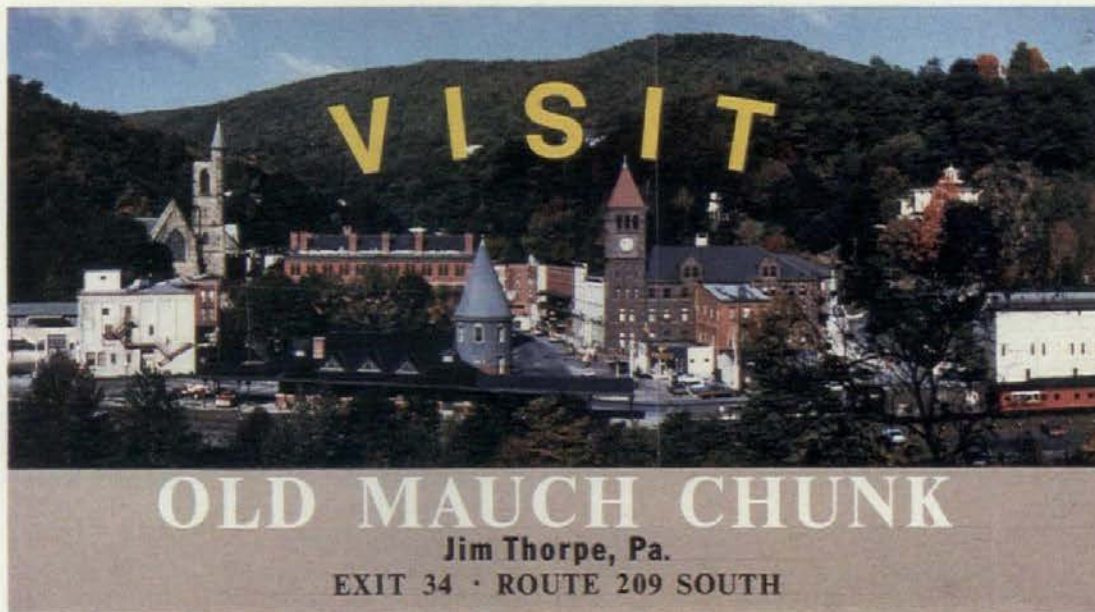
The report identifies possibilities for restaurants and lodging to be inserted where viable and suggests new infill construction (such as an office/commercial building) where needed.

Jury comments

Bacon: The sensitivity to the old buildings is exemplary. The drawings, the sequential photographs, and the way the report is put together stirs up the feeling, makes you aware there is a quality that should be preserved.

Brownson: No one wants to see another Williamsburg, better than the day it was put together. So many revitalization efforts do not seem to refer to the kind of life that might have occurred in the small town. I would like to see a more direct connection with the river so that parks and other activities do not require a tremendous amount of energy for townspeople to get to.





RECOMMENDED FAÇADE AND STORE FRONT IMPROVEMENTS

Van der Ryn Calthorpe & Partners

A solar village for northern California seeks to integrate energy conservation and passive solar techniques into the planning of an ecologically responsive and socially balanced new town.

Credits

Architects and planners:

Van der Ryn Calthorpe & partners, Inverness, Ca. Sim Van der Ryn, project principal; Peter Calthorpe, project designer; Scott Matthews, Claudia Cleaver, Andrea Ponsi, design team.

Consultants: Office of Gordon Ashby, graphic design; Wallace McQuat, economic analysis; The Coleman Consortium, civil engineers; John Benneman, waste systems analysis; David Katz, agricultural design; Ken Smith, biomass energy analysis; Clark Blasdel, housing analysis; Berkeley Solar Group, computer analysis.

Modelmaker: Mark Van Norman.

Model photographer: Peter Xiques.

Client: Marin Solar Village Corporation.

Project: Marin Solar Village, Hamilton Air Force Base, Novato, Ca.

Program: A new town representing the nation's largest application of solar and climate-responsive building techniques. Solar energy would provide 80 percent of the space and water heating. The town would offer 1500 units of housing for a population of 5300, plus 5000 jobs in offices and light industrial space. Approximately 1200 people would work and live in the town.

Site: About 280 of 1270 acres in Marin County, Ca, belonging to the now-decommissioned Hamilton Air Force Base, a surplus property of GSA.

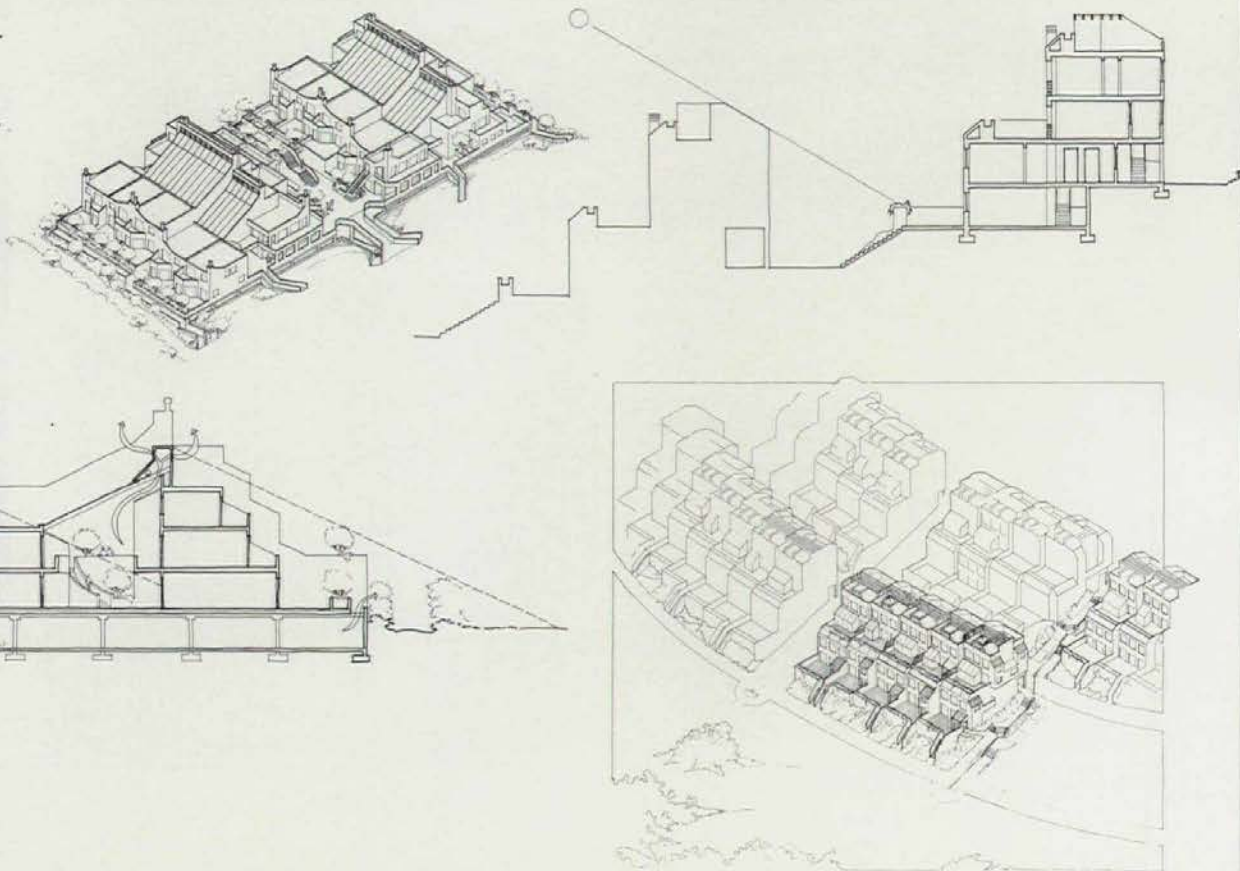
Solution: The plan calls for building 1500 new dwellings in five neighborhoods over a ten-year period, plus rehabilitating some existing housing. All new buildings are oriented south and spaced for 100 percent solar access, with solar heat collected by windows, greenhouses, and trombe walls and stored in the building's mass. The low-rise housing in row-house, atrium, townhouse, or terrace configurations will provide a density of 15 d.u.s an acre. Because of low costs for

land, construction, and infrastructure, it is expected that 90 percent of the d.u.s can be sold at below market rates.

At least 770,000 sq ft of existing space will be rehabilitated for light industrial and commercial use, with a Solar Technology Center located in a rehabilitated hangar complex. Another 800,000 sq ft of new office and light industrial space will be built, including two three-story buildings designed for extensive natural daylighting and passive solar heating and cooling. The plan calls for reserving 24 acres for the office center and 40 acres for light industry.

Most of the area would be reserved for open space, including 50 acres for agriculture and energy production and 42 for parks and recreation. To reduce the amount of space needed for streets and parking, pedestrian and bicycle paths will be major features for circulation, along with minibus transit.

A solar aquacell system is used to treat sewage without discharging it into the bay. On-site disposal of solid wastes, with methane recovery is planned, along with on-site electrical cogeneration to reduce peak demand.





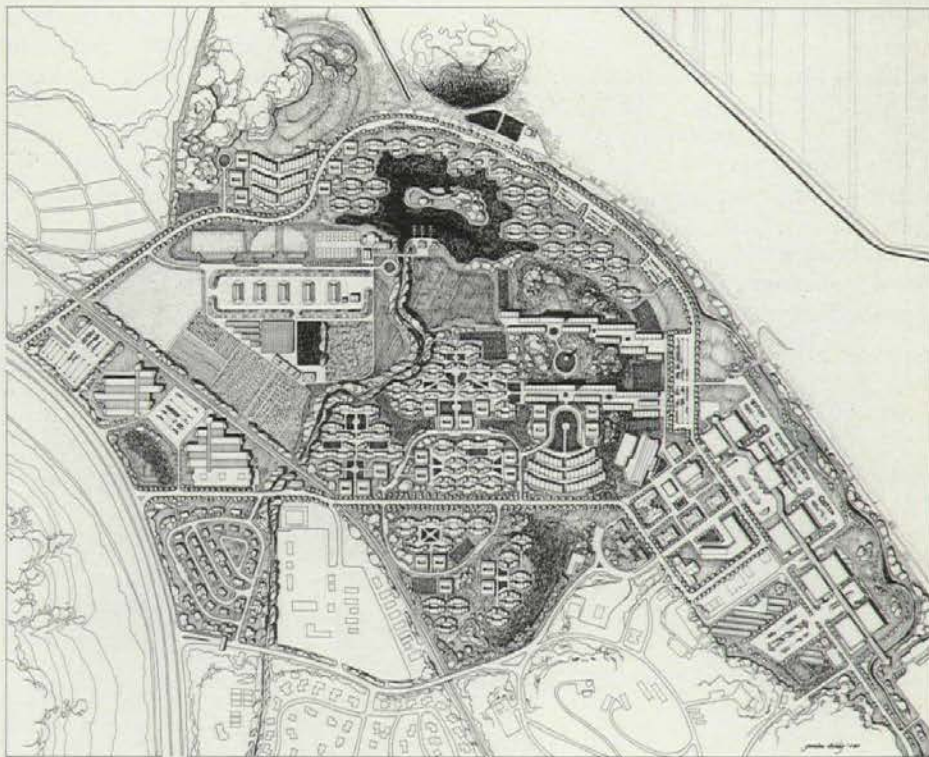
Jury comments

Brownson: The architects have conducted an extensive analysis of the site conditions, flood plains, solar orientation, prevailing breezes, etc., to make sure the fit of the new town with ecological context is a close fit. The plan does not rely on just solar energy gimmicks, but seeks to integrate the solution with the natural conditions. Recreational facilities and schools are placed so that residents do not have to cross major streets to get to them. The housing units have ready access to parks and open space. Yet one difficulty seems the placement of industrial or work area to the side, connected with a road that goes around the community but separates it from the ocean.

We looked at the use of solar energy, but it seems that the housing units need more work. Each of the housing units, however, does take into consideration the problems of the sun and the prevailing breezes.

Bacon: The entire implications of solar design and planning are very significant in this scheme. It will stimulate further thinking, and provide a significant model for harnessing natural forces in design.

Brownson: All the elements of daily life, including the work places, are nicely integrated in the plan. The surrounding flood area has been recognized and the buildings are grouped accordingly. Consideration has also been given to the elderly by providing means of transit within housing areas. And the housing units themselves are carefully sited for views, even though the site lacks the kind of topography one sees with hill towns of Greece.



Helfer Architects

The recycling of an old car assembly plant becomes the focal point for mixed use.

Credits

Architects and planners:

Helfer Architects, Inc., Bern, Switzerland and New York. Daniel Herren, director of design and principal in charge of project; Ulrich Keller and Roger F. White, designers; Hans-Joerg Baehler, project architect.

Consultant: René Furer, theory.

Clients: Martin Swarzman, LDS Corp., New Hyde Park, NY; Dr. W. Forster, ICS Consulting & Service Co., Zurich; Jan C. Branger, engineer.

Modelmaker: Martin Bill.

Model photographer: Elisabeth Herren.

Project: Edgewater Marina Mall, Edgewater, NJ.

Program: Comprehensive, self-contained environment for 25,000, with 833 dwelling units plus recreational, retail, and commercial space, to be built in two phases using existing assembly plant as the central structure.

Site: 47 acres of riverfront property on the Hudson River in New Jersey facing Manhattan, of which 12.5 acres are contained within a two-story existing structure.

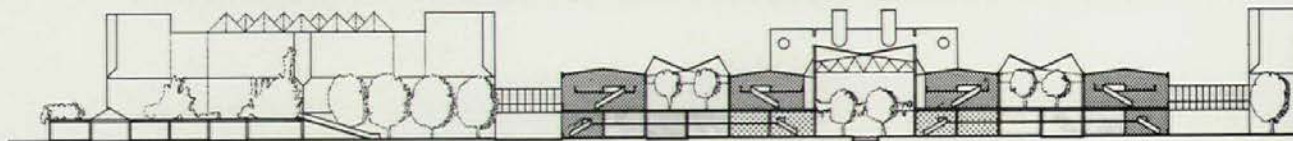
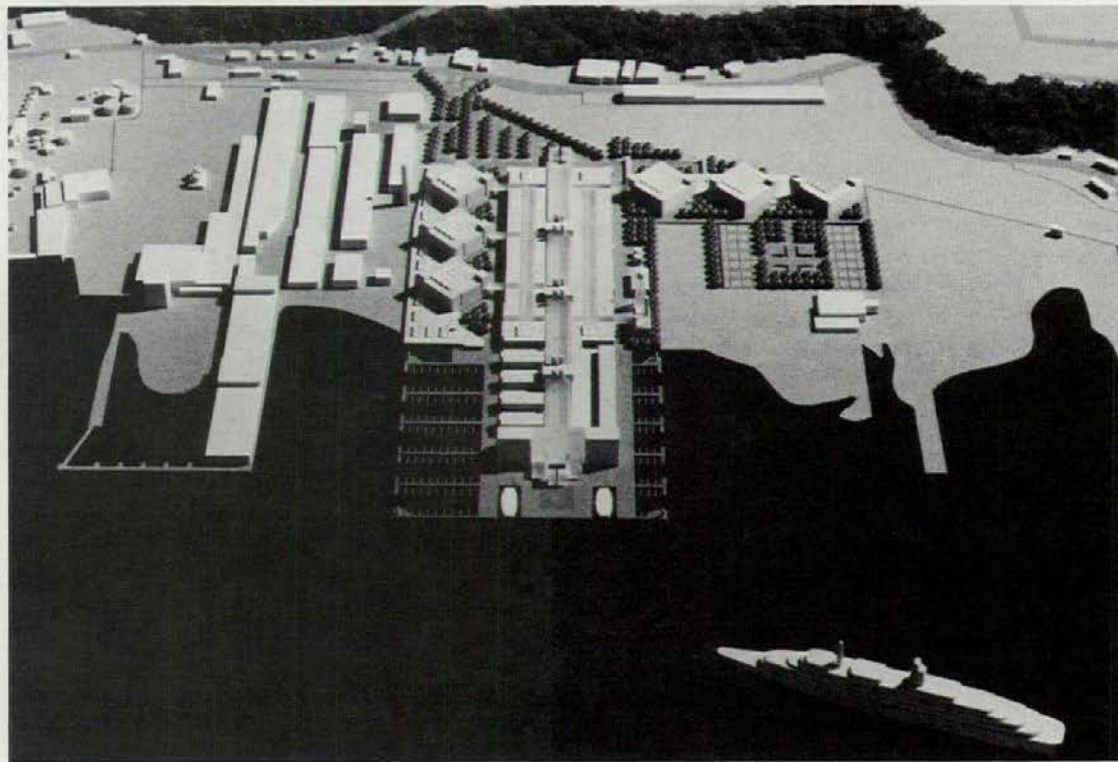
Solution: In the first stage, the old assembly building, 1500 ft long and 360 ft wide, designed by Albert Kahn in 1929, will be converted into the main activity center. Besides accommodating 468 d.u.s., the building, which has 540,000 sq ft on the ground floor plus an upper level mezzanine, will have commercial, office, and recreational facilities bordering the central mall. A 160-room hotel will face the riverfront. Existing ancillary structures will be converted for use as a library, community center, children's park, and indoor pool. Phase Two will include six new housing blocks with 415 d.u.s., plus park-

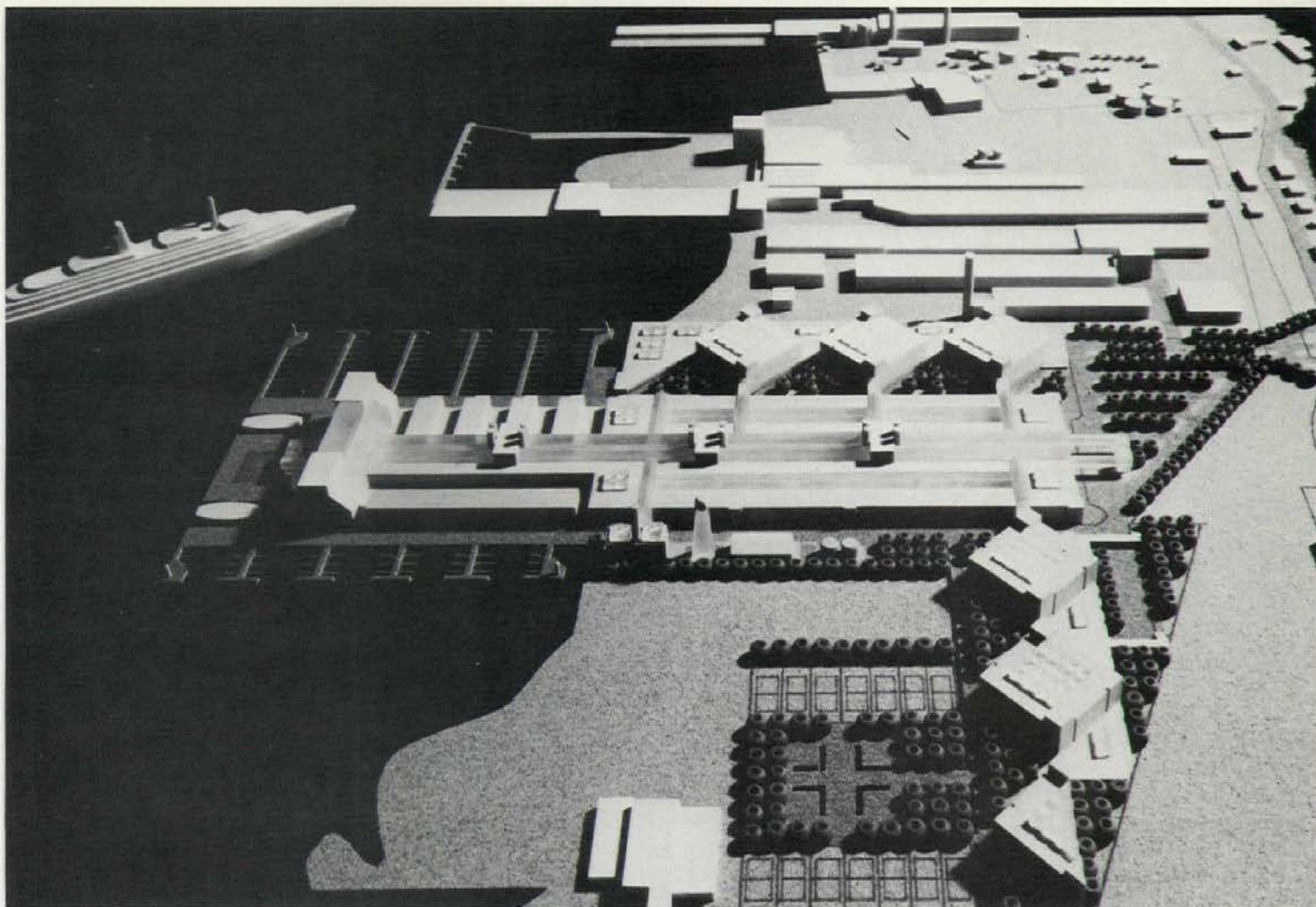
ing for 1105 cars, 940 of which are covered.

Jury comments

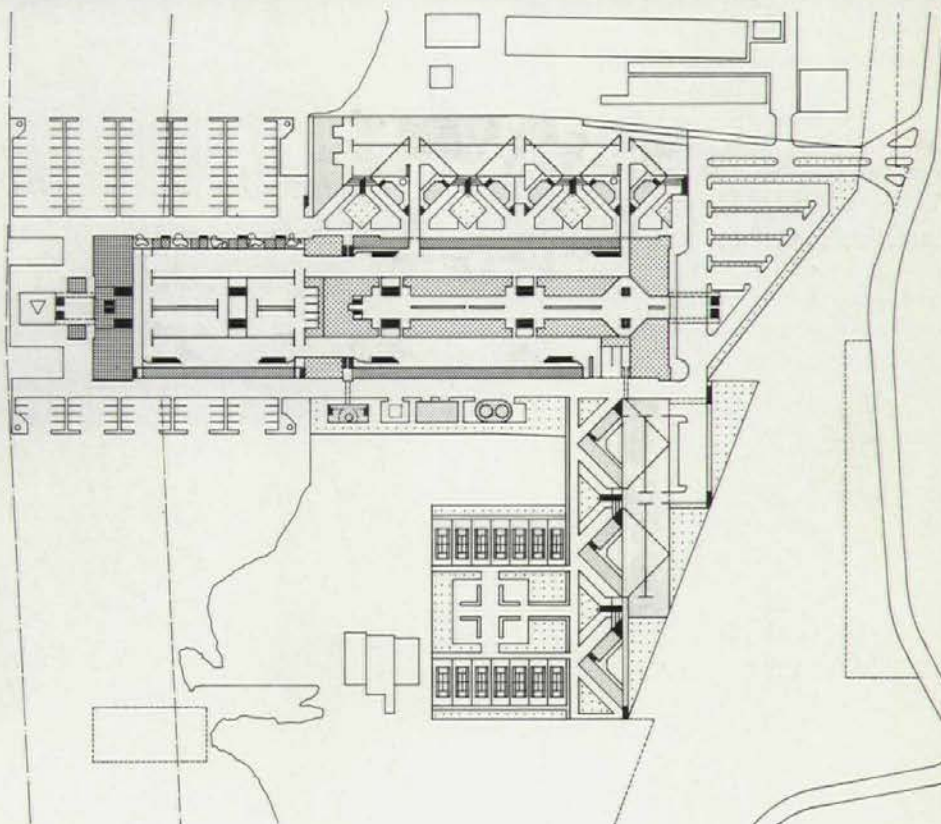
Brownson: The reuse of an old assembly plant for a mixed-use development, keeping the interior space and its column and beam structure, is quite important. Having a hotel immediately adjacent should bring in outside people, but I do wonder whether there is still enough density to support the large amount of auxiliary space.

Bacon: It is significant because it uses a large, abandoned industrial building on the deteriorated stretch of the waterfront as a nucleus for the revitalization scheme. The revitalization effort, should it be successful, will affect areas around it and will provide a model for other cities with large, abandoned industrial buildings, deteriorated waterfronts, and sections of town thought to be hopeless. It is interesting as a mixed-use experiment. Integrating the housing into the scheme is important to bring the old area alive and to make the whole thing work. It seems like a very imaginative proposal.





Brownson: One of the problems I find with this plan, however, is that a new community for 2000 people is being created down at the base of the Palisades. The development of the lower area might establish a pattern for the redevelopment of the surrounding area that is topographically isolated from older communities higher up the Palisades.



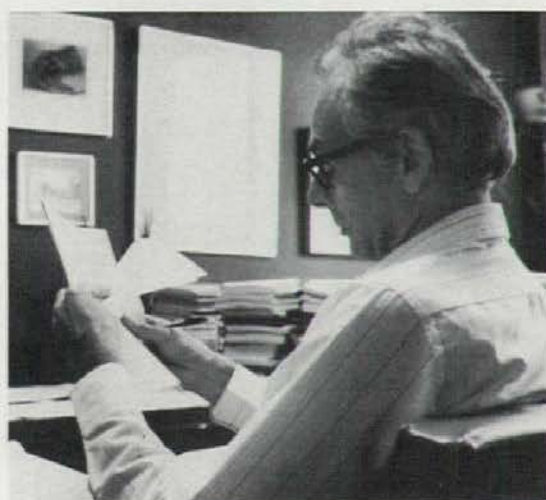
MAIN FLOOR PLAN

Applied research

The winning research entries show great variety of subject and methodology. The criteria for their selection emerged from all of the diversity and created a definition of architectural research for general application.

Galen Cranz is assistant professor of sociology in architecture and urban planning, University of California, Berkeley, and has taught previously at Princeton and IIT. Her research has yielded numerous articles, in particular on housing for the elderly and on urban parks.

Ralph Knowles is professor of architecture at the University of Southern California, Los Angeles, where he has taught since 1963. He is a recipient of an AIA Medal for research and is author of *Energy and Form* (MIT Press, 1974).



As professional researchers, research category jurors bring to the evaluative arena of a competition skills precisely attuned to the task they are given. The act of research itself contains information scanning, association of ideas, and good judgment. More than other aspects of the architectural profession, they also bring a varied intellectual background. The ability to speak several "languages" of research pursuit implies an ability to communicate and cooperate with other researchers.

In addition to the common ground, such individuals most certainly represent very different and distinct abilities. At the outset, the differences of this particular jury were more apparent than the similarities. After completing the synopsis reading, both Knowles and Cranz saw the need to categorize the 52 entries into working subsets which loosely paralleled their own personal interests. The Knowles categories included: general facilities design education, design guidelines, urban design, environmental design, and graphics. Galen Cranz used a sieve that was more specific. Her categories were: open space and site planning, work environments, design for the elderly, historic preservation, energy, vandalism, transportation planning, barrier-free design, public environment, institutions, home safety, and the design process itself.

After each had made an initial selection, the task of selecting the winners became the process of communicating with each other. Words and definitions were exchanged while a common ground was sought. Neither juror came with a preconceived set of criteria for judgment. The criteria emerged and evolved from such discussions.

The first most obvious point of agreement was that the research candidates had to be able to lift, from the demands of a specific problem, aspects that could be applied elsewhere or that contributed to the generic state of the art. It was important, therefore, that a winner advance the state of the art.

In conjunction with such advancement was the importance of an empirical ingredient, experience or experimentation. Also of great merit to this criterion was creativity. As Knowles explains: "There can be two kinds of advances that are in a sense creative. One is a new idea that you are testing, but the other would be a value set that allows conventional information to be recognized in a unique way."

The judges agreed that such innovation needed to be laced with a clear and explicit research methodology. If the method used was not clearly explained, it is probable that the research did not pass the synopsis reading stage of the jury.

The most general statement of research is that of the value system which produces the necessity of it. The jury preferred these values to be clearly stated. As Knowles put it: "Design research as an emerging field has to be very careful that values are explicit and stated up front."

Of the values possible for research, the two jurors stressed social values. As Cranz explains: "Even technical research should have a social component. That helped us distinguish between architecture and engineering." Cranz and Knowles looked for the explicit reference in the research that related to social values and the human being.

The purpose of such demands for clarity in methodology and general application is of course so the research can be replicable. The presence of a clear framework for design or planning increases the potential value of the tool.

Somewhat concealed in the initial stages of the decision-making were research biases common to both Cranz and Knowles. Both acknowledged the importance of graphic qualities in the works, from an informational and formal view and the inseparability of the factual nature of research from the person who does it. They looked for research that was done and portrayed as emotionally, even sensually important to the researcher. They asked that such involvement be conveyed to the reader. It was important that they as judges could feel the close personal involvement with the problem at hand. As Knowles expressed it: "Is the research concerned with sensations of our environment and is the research being communicated in some way touching our sense of sense?"

Cranz continued: "We are not just concerned with the operation of the body as a mechanical system. We want to emphasize sensory awareness." In short, do you feel the research? Does it feel the problem?

When all was complete, it was clear that more than in recent years, the jurors had in the selection process accomplished research of their own. In surveying the body of information, they had formulated a definition of the subject, complete with illustrations of the definition.

As Cranz stated it: "In some way, we have been doing research, in that we have looked at a body of data and created, a bit gropingly, a more concise body which makes a statement to the public."

By extracting such a general definition of useful architectural research, seeking the phenomenological bases, and clarifying the results, the jurors had indeed accomplished a piece of research that embodied their own criteria. The result was, so to speak, constructed in its own image. [Richard Rush]



Photos: Dorothy Alexander

As the research jurors waded through the 52 entries, they formulated a common basis of comparison. The long and intense effort is apparent in these photographs.

Walter H. Moleski, Michael Rubin, ERG/Environmental Research Group

A complex new approach to historic preservation is lauded for its insights into the many ways in which buildings may be valued. The jurors cite the integration of many views and disciplines into a method.

Credits

Researchers: Walter H. Moleski, Michael Rubin, ERG/Environmental Research Group, Philadelphia.

Principal in charge:

Walter H. Moleski.

Project director: Michael Rubin.

Senior research associate: James K. Dart.

Research associate: Celotte Brogden.

Client: Elizabeth Mintz, coordinator, Philadelphia Site Surveys, Pennsylvania Museum & Historical Commission.

Title: South Philadelphia Historical Sites Survey

"In the historic residue of the city there appear no neat boundary lines, no readily accessible categories by which we can assign artifacts with places and values. Instead we find that boundaries overlap one another, forming a temporal collage, the perception of which alternates as we gaze back in time." This introduction sets the philosophical and methodological tone for an exhaustive look at how and why people place value on buildings.

The authors assert that one of the purposes of preservation is to give life in the city an added dimension and a deeper perspective, as a means of enriching people's lives. This is, as they demonstrate, a process that involves the diverse concerns of different neighborhoods and interest groups. In researching, surveying, organizing, and evaluating the "historic residue" of South Philadelphia, they establish a way to integrate social experience over time through use of spatial mapping techniques, oral history, and what they describe as "retrospective programming." The study says that what we choose to preserve depends to a large extent on how we choose to remember the past. It expands the scope of the collective urban memory and provides new ways to communicate about values in space and time.

Jury comments

Knowles: This study meets, as far as I can see, all the guidelines we've set for research. My special comment about it is that it establishes a new value, and it does that in a very particular way that makes it outstanding.

Cranz: It's a new theory and it's a new method. To do this kind of work you really have to put in a lot of time working with historical documents. It's rare to be able to deal in visual, concrete terms with social organization, which is an abstract thing.

Knowles: It pictures historical buildings in real times and makes a successful attempt to describe those buildings in association with time, so that as the city grows and the way the city grows is conveyed in the report. What they have described is the fact that the way in which a building fits into its city has changed in time. This change is describable, graphable, and they have graphed it.

Cranz: I was very impressed by the intellectual roots of this work. It brings together a very impressive amount of material, but—more important—there is thought given

to the integration of different traditions, including cultural geography, social history, sociology, and social theory, as well as architecture, preservation, and urban design analysis. I like their concern intellectually with the relationship between social organization, spatial organization, and material expression. It's very important to keep in mind that there is always such a relationship. Even when we are concerned with the formal properties of something, it's at a certain point in time and for a certain class that those properties have such importance. That mustn't be overlooked. They are interested in the way buildings and the organization of cities helped to create social order, which shows again their deep theoretical understanding. They use new kinds of data, in particular oral history, as a way to establish the place of buildings.

Knowles: It looks at buildings in terms of their changing historical roles in the city over time and establishes a way to make future studies of this kind.

Cranz: I would say it's brilliant; they manage to take these very diverse disciplines and integrate them. It is operational, focusing on a very concrete mapping technique that allows you to see change. It can be used to study a church, a newspaper hall, a bar or tavern, a school. . . .

Knowles: It has both policy and design applications. The least it could do is act as a kind of instructional mechanism for people trying to decide whether they're going to hold onto something or not. You can trace the importance of the building by its linkages through time. It's a way of graphing in combination with word images that generates a very complete picture, a word graphic picture.

Cranz: I know that this has not been done before and will serve to shape the future of research in this area. The insight is that, after applying their method, one might choose a different building from one that the National Trust or the National Register would select. They don't actually choose in this work, but they do compare their criteria to the National Landmark Commission's and to the National Register.

Knowles: As an application of new techniques it moves us a long way.

Report: For information about obtaining the full report, *South Philadelphia Historical Sites Survey*, or portions of it, write to Walter H. Moleski, Environmental Research Group, 1821 Sansom St., Philadelphia, Pa 19103.



1900—Washington Ave.



1915—5th & Queen.



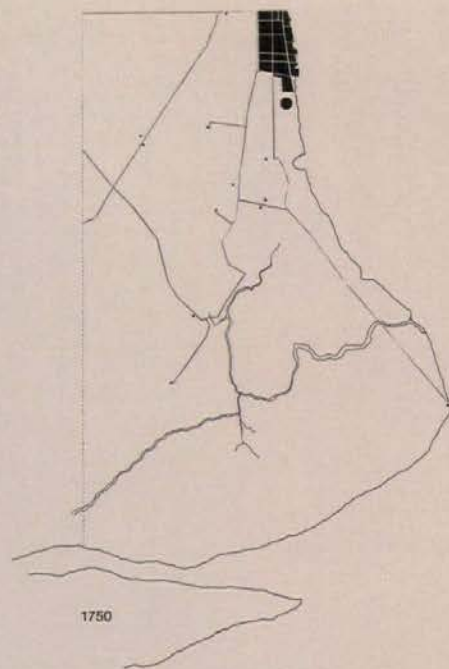
1922—5th & South.



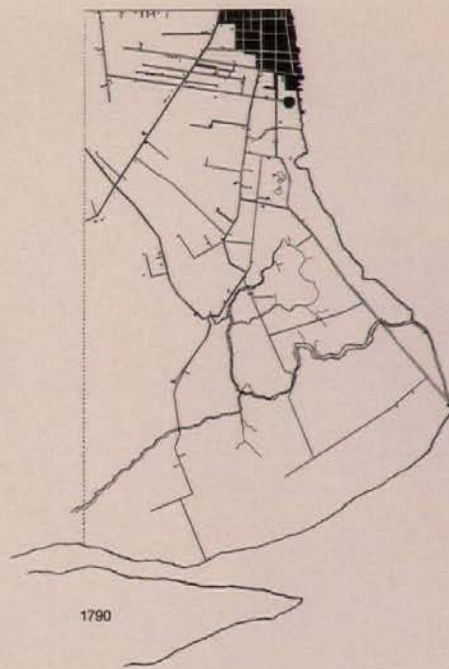
1936—4th Street.



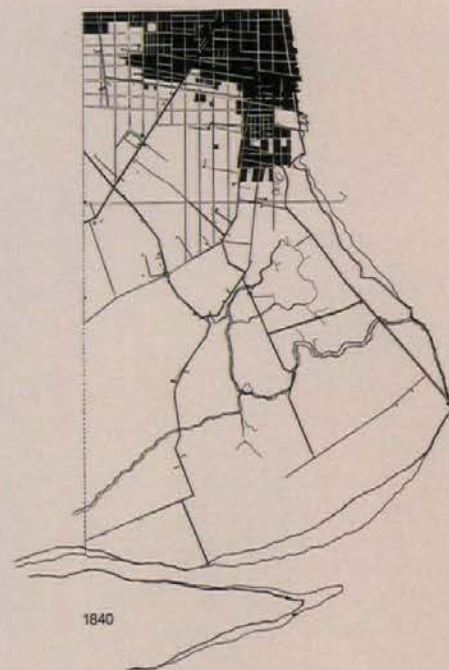
1948—Passyunk & McKean.



1750



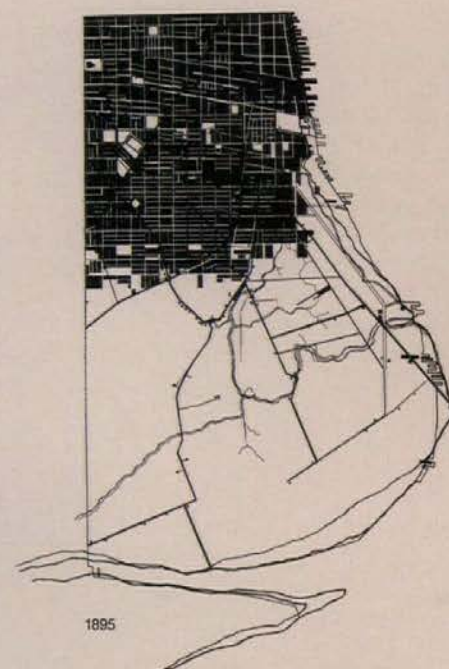
1790



1840



1876



1895

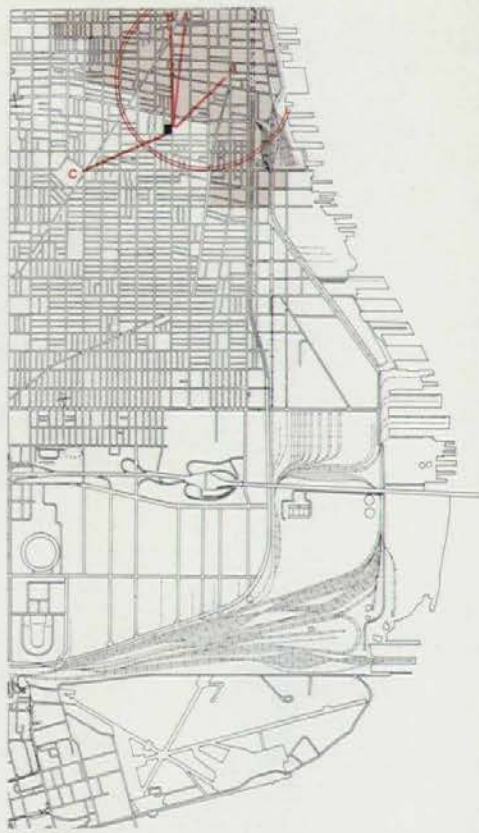


1930

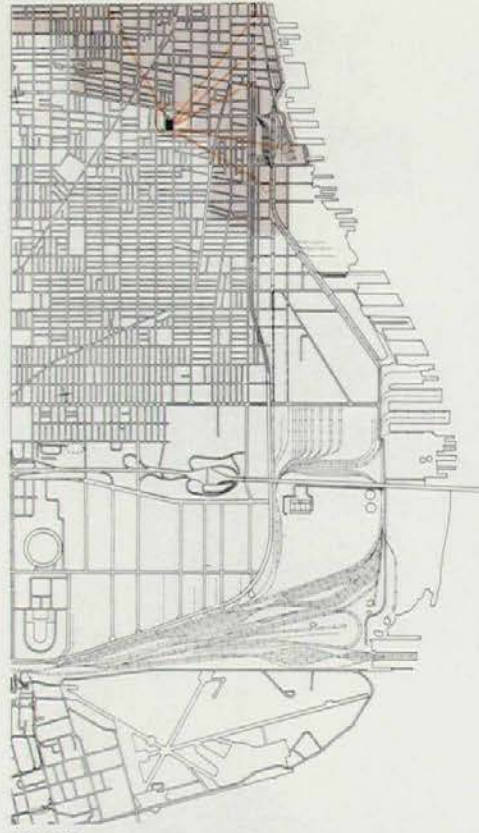
DEVELOPMENT OF SOUTH PHILADELPHIA (SOUTH OF BROAD STREET)



1735-1823



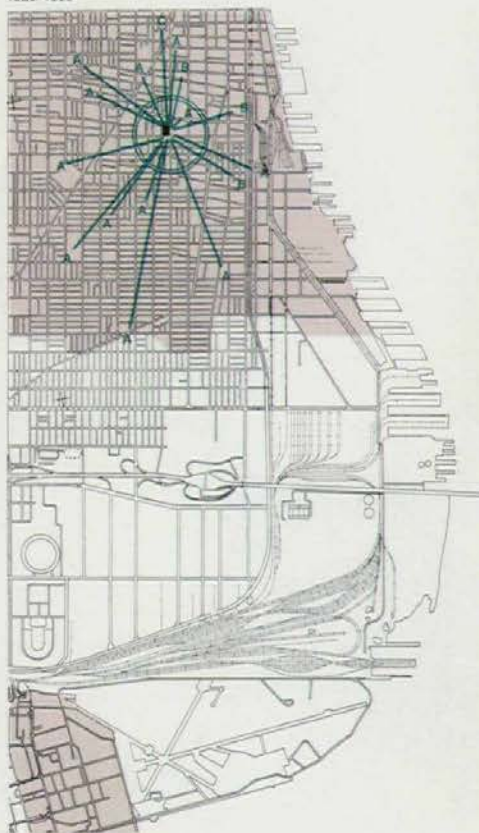
1823-1835



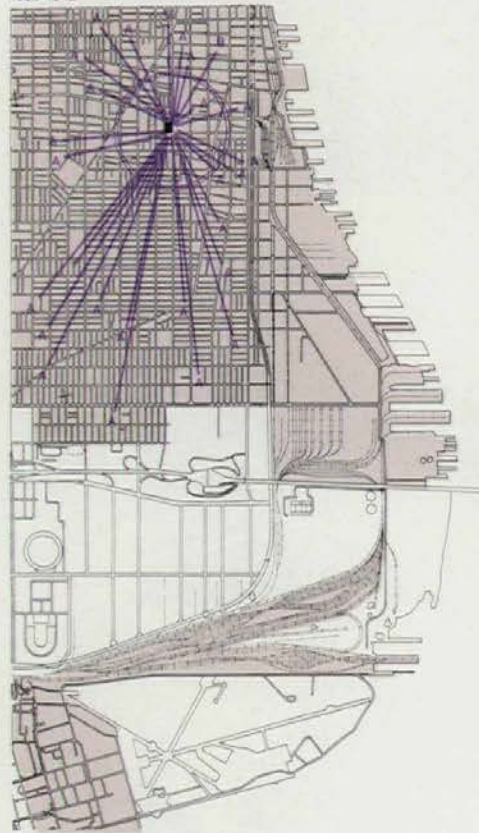
1836-1842



1842-1861

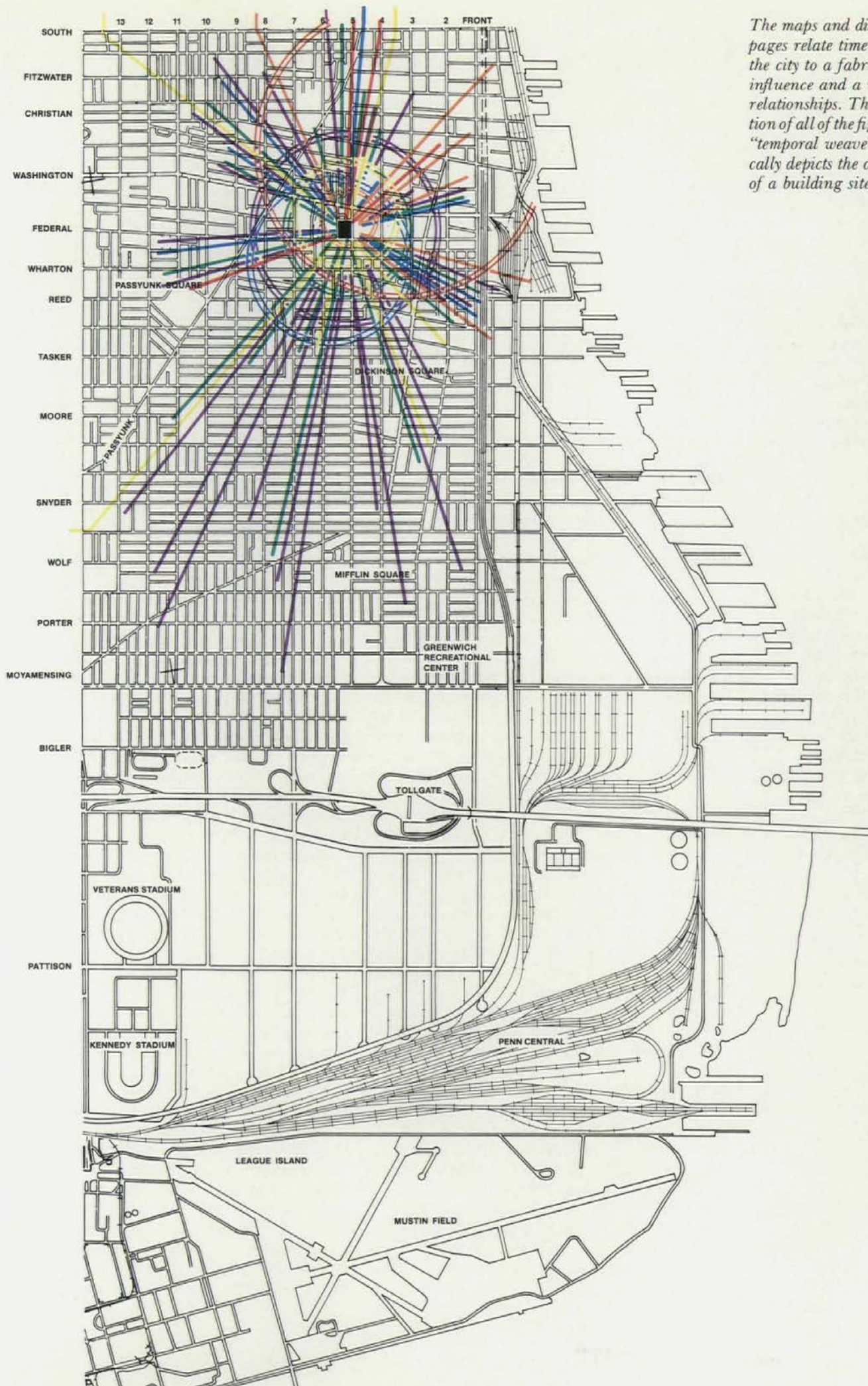


1895-1916



1930

SOUTH PHILADELPHIA APPLICATION OF THE DISTAL LATTICE TEMPORAL WEAVE



The maps and diagrams on these pages relate time and growth of the city to a fabric of areas of influence and a network of use relationships. The superimposition of all of the figures produces a "temporal weave" that graphically depicts the contextual story of a building site.

Olsen-Lytle Architects

A teaching guide for elementary school educators is praised for its emphasis on developing visual perception and appreciation skills and its attention to participatory activities for children.

Credits

Architects: Olsen-Lytle Architects, Champaign, Il.

Partner and project director: Gary L. Olsen.

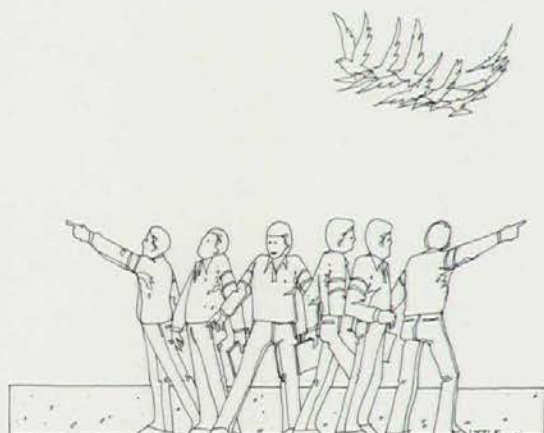
Partner in charge of graphics and illustrations: Raymond H. Lytle.

Aesthetic education consultant: Carol Holden.

Curriculum development consultant: Michele R. Olsen.

Client: Champaign County Historical Museum, Champaign, Il.

Report: Copies of *Historic Preservation Education*, at \$12.95 plus \$2 for shipping, can be obtained from Olsen-Lytle, 627½ S. Wright St., Champaign, Il 61820.



Title: Historic Preservation Education.

This well-illustrated guidebook provides a structure within which students and teachers can experience environments and describe, as well as appreciate, the qualities of urban and architectural spaces and elements. Beginning with sections on aesthetic perception and ways to discover the environment, the course moves through styles and development patterns within cities to planning issues related to preservation. Although specifically related to the historic architectural resources of Central Illinois, the guidebook's early sections are generic to any built environment and to the ways in which people of all ages can learn to appreciate form, scale, line, texture, context, and rhythm in architecture.

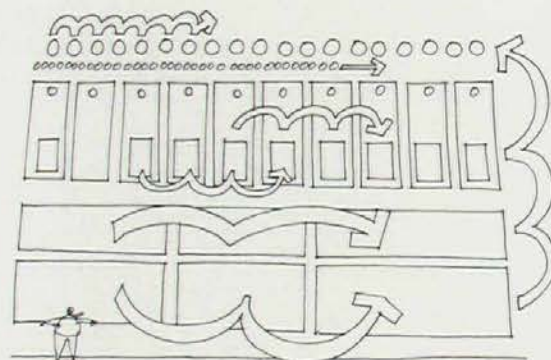
"In order to experience the world around you in a genuine way," a section on environmental discovery begins, "you must use all of your senses—seeing, hearing, smelling, and touching the world you encounter in a careful and sensitive way." Designed to be used by students independently or in a classroom setting, the guide provides hundreds of suggestions for activities and exercises. The authors used the book with graduate students of architecture who, like their younger counterparts in elementary and high school, found their experiences rewarding and compelling.

Jury comments

Cranz: We want to award this not so much as research as for its significance in trying to affect education. It says that there should be design education in the elementary schools, and it provides teachers with a very clearly organized way to bring this about.

Knowles: The other thing I want to point out about it is that its basis is perceptual. They are starting with basic perceptual elements and moving on from there. It's not so much aimed at whether a building is important historically, but rather looks at visual quality in the landscape.

Cranz: This builds up the students' capacity to notice things visually, a primer for awareness of the built environment. They could lift the historic preservation aspect and have a

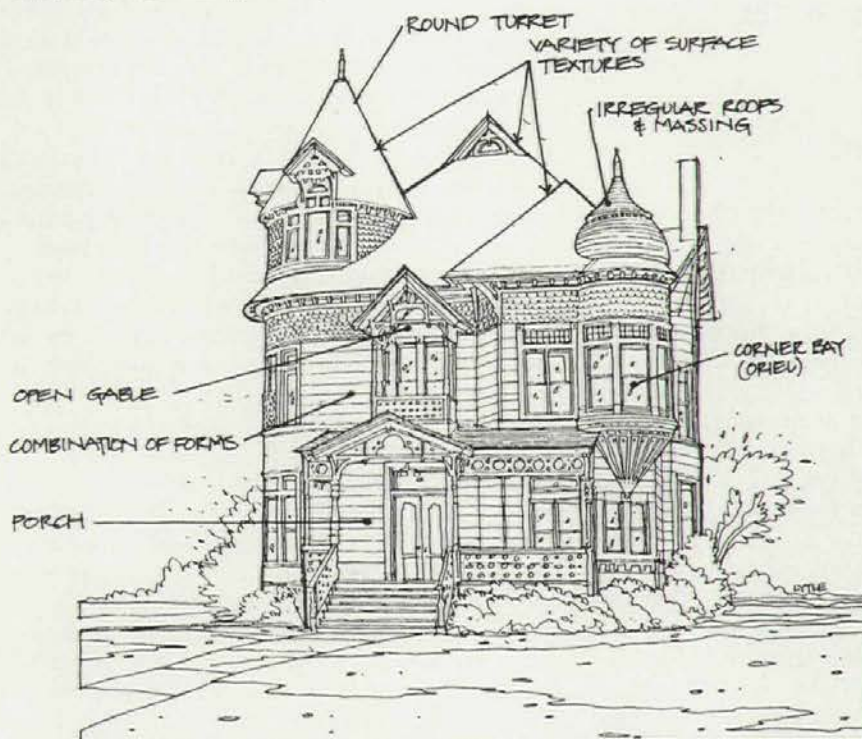


great course for elementary and high school students.

Knowles: One could make the argument that this is a little dreamy, too. Considering all the cutbacks, how many public schools are really going to go into this kind of thing? It's window dressing from the 1960s and 1970s, not necessarily something that will go into the 1980s. I don't support that argument, but there is the question of whether or not it's realistic. If one tried to be the least bit optimistic, this is a terribly useful thing to have done.

Cranz: There's a lot of talk these days about bridging the gap between the professional and the layman. This book does more to bridge that gap than just about any other single thing I've encountered. There are two ways to bridge this gap: either we all use lay language or the lay audience learns ours. There's no point in the first approach, because the reason professional language has evolved is because it's rich and helps to discriminate different kinds of experience. This work makes perfectly justified use of professional language and makes sure it's well understood. Scale is not just a vague word. You see what it means in very clear terms. It brings the richness of the expert to the layman, not intimidating him or assuming that this is the only way to look at things.

Knowles: Their proposal is to begin with school children and develop a perceptual basis for evaluating the environment in general and historic buildings in particular. Again, rather than valuing a building because George Washington slept there, they are trying to establish a good perceptual base.



QUEEN ANNE (1870-1910)

EMPHASIS ON LINTELS

DORMER

ROMAN OR SEMI-CIRCULAR ARCHES

LARGE ROUGH-FACED MASONRY

BELT COURSE

RICHARDSON ROMANESQUE (1875-1900)

Pflueger Architects

A fast-track programming effort is cited for its use of anthropological methods, its departure from the more standard use of surveys, and for its attention to detail.

Credits

Architects: Pflueger Architects, San Francisco.

Associated firm: Ouye and Parman.

Principal in charge and design director: John M. Pflueger.

Project architect and program director: William A. Hutcheson, Jr.

Project manager: James H. Davis.

Programmer and cultural anthropologist: Marilyn Davis.

Chief programmer: Joe Ouye, Ouye and Parman.

Model photographer: Robert Campbell.

Client: Ingleside Community Mental Health Center, Rosemead, Ca. William H. Newell, John Roughan, Dr. Jerome Blumenthal, Morton Hyman, Doris Boone.

Report: Copies of the *Ingleside Mental Health Center* program, at \$5 each, can be obtained from James Davis, Pflueger Architects/Ouye & Parman, 165 Tenth St., San Francisco, Ca 94103.

Title: Ingleside Mental Health Center, Pasadena, Ca.

Seeking a quick way to assemble a program for a new 100,000-sq-ft mental health facility from many complex elements, the design team employed a cultural anthropologist who spent nine days as a "simulated" patient in a therapeutic environment. Her experiences, recorded in a volume that follows the schedule of a patient's day, serve as part of the basis for an extensive and careful architectural program sensitive to both staff and patient concerns. Through use of "issue mapping" techniques and slides evaluated in semantic terms, the multidisciplinary team organized a thoroughly documented and well-researched program that points to new approaches in understanding how people use and react to environments.

Jury comments

Knowles: There's a unique component of this otherwise fairly straightforward programming effort. It's an anthropological study of a particular ward culture, and the fact that it exists as part of a program is unusual. There is a deeper amplification of the movement to find out how users use space. The attempt here is to recognize with skill the users' use of the space in new ways.

Cranz: I value the use of anthropology as opposed to the more typical reliance on surveys. Anthropological work is very good for really noticing what's going on, because you are using the environment in the same way that your client uses it. In this way you can use your own experience, because you're making your experience and the client's similar. We have seen many competent programming studies, but this one stands apart for the anthropology component.

Knowles: I get the sense that they are doing what we've always hoped architecture might do—by using prototypical layouts and cataloging them, based on years of experience, they accumulate knowledge and don't reinvent the wheel each time.

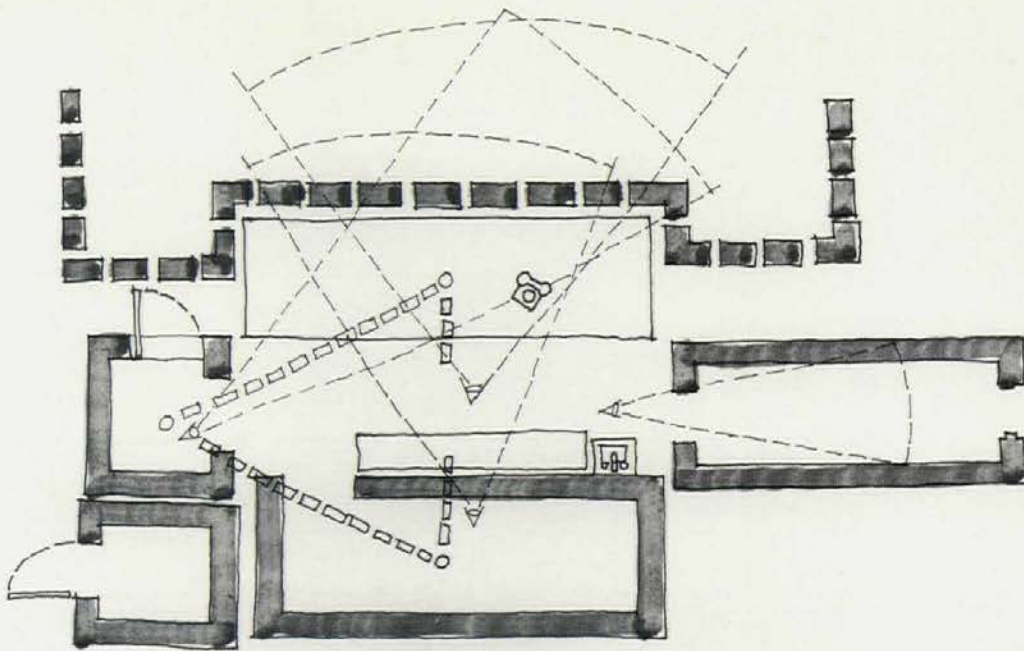
Cranz: There's an interesting convergence here of theoretical points and a research orientation. It's a concern for design by typology, about which Colquhoun wrote with respect to meaning in architecture. The theorists do not seem particularly interested in empirical research. What we're suggesting with this citation is that if the design professions could ever build on research cumulatively, we could create types that are appro-



priate to our point in history and to our culture. We wouldn't have to be lifting types from a historic past.

Knowles: It gives an additional context for programming, and I think this is worthwhile. The researcher was evidently trying to feel the way those people on the ward feel. This was as a researcher, not as some neophyte taking a poll. This is pressing a new set of values in programming.

Cranz: It uses methods that are rare. For example, the use of semantic differential technique is imaginative. Instead of words it uses images. Visual images and choices have been used in other studies, but the semantic differential ranking is unique. Reality is there all the time, and we train ourselves to get better at interpreting it. It should be pointed out that this is a working document. It does not tell you how to do anthropology; it establishes what anthropology can do. With survey research you must know what the issues are in advance, whereas here you learn what the relevant issues are from patient experience. Behavioral research is concerned with what people do in the environment. You can't ask questions in interpretation and meaning. In the full-fledged anthropological approach with participant observation, you are able to learn and talk about the feelings and values associated with what people do. "The pillows have a plastic covering under the pillowcase. This causes the pillow to be very warm and the noise created when a patient turns his head is extremely irritating." This is the kind of detail that simply doesn't emerge through questionnaires.



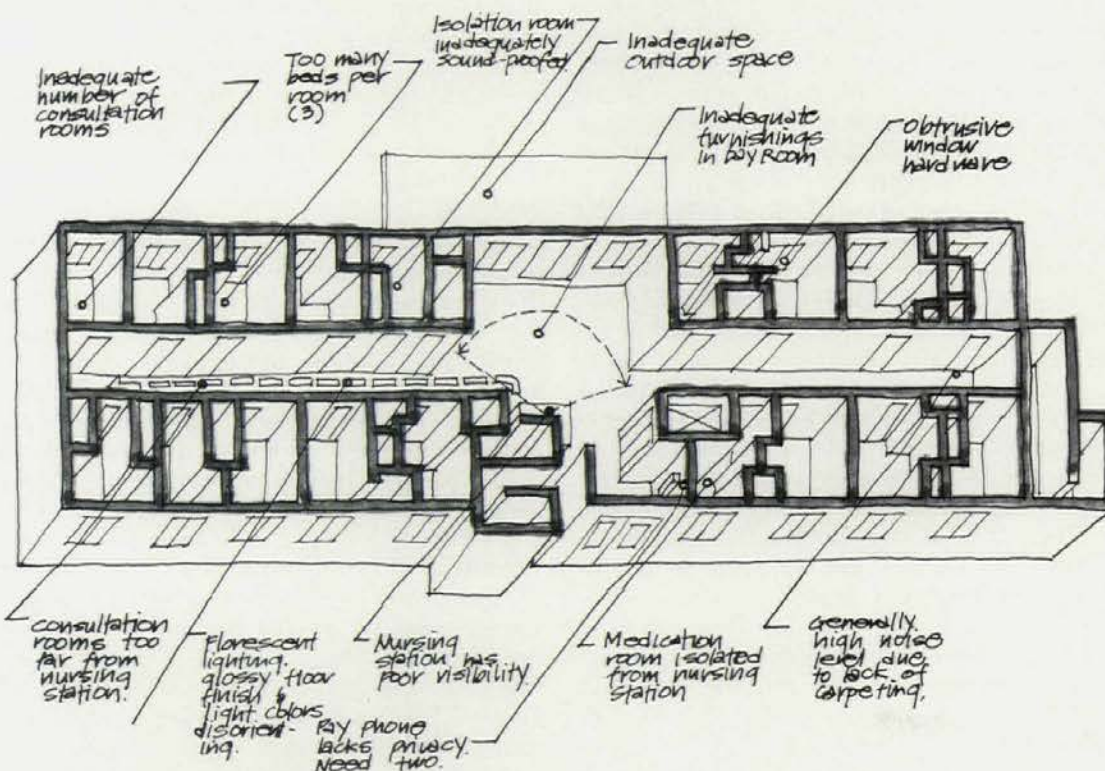
NURSES STATION

Restraint Rooms

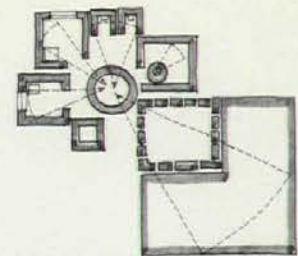
The Restraint Room in which highly agitated patients are physically restrained (strapped in a bed) should be next to the Nurses' Station. A restrained patient is accompanied by a staff person at all times. The Restraint Room should have soft surfaces throughout (recommend carpeted floor and walls). The bed could simply be a raised carpeted section of the floor equipped with recessed loops for the restraint straps.

- The bed should be oriented so that the head of the bed is in the far side of the room away from the entry so that the patients (who might be struggling) do not have to be turned.
- The door should have a small, but floor to ceiling, window with shades so that the staff can view the patients.
- The interior of the room should not be easily visible from patient areas.

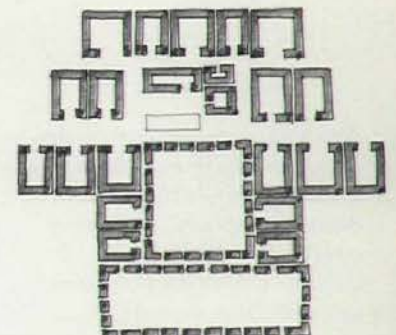
INGLESIDE COMMUNITY MENTAL HEALTH CENTER



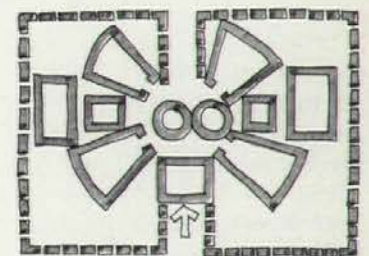
SETTING ANALYSIS WARD D—INTENSIVE CARE



SUPERVISION FROM NURSES STATION



ADULT 15 PATIENT UNIT



ADULT WARD ORGANIZATION

A set of recommended design details is established as a means of reducing accidents in homes, in a form useful for designers and builders. The jury praises its accessibility to users.

Credits

Architects: BOSTI, Buffalo, NY.

Project manager: David Alessi.

Senior researcher: Michael Brill.

Research associates: Christine Brady, Katka Hammond, Ann Schubert, Mark Wigglesworth.

Illustrations: Ann Schubert.

Office manager: Esther Nowakowski.

Graphic design consultant and renderer: Carolyn Kinsman.

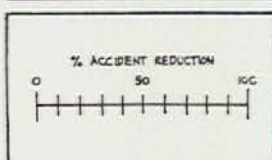
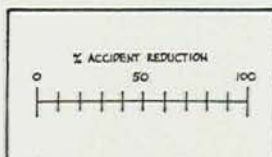
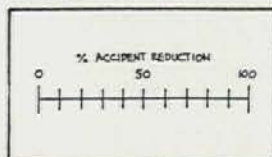
Stairs, floors, and ramps consultant: John Archea.

Safety review panel: Peter Armstrong, Harry Cohen, Stephen Margulis, Paul Present.

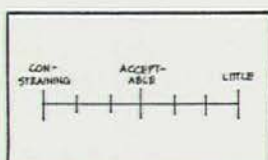
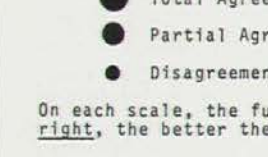
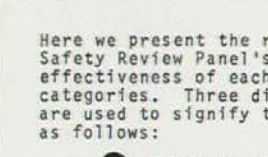
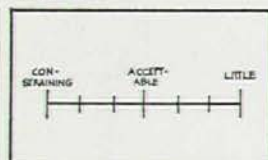
Client: Porter Driscoll, coordinator, Design and Construction Technology Applications Program, Center for Building Technology, National Bureau of Standards.

Report: Copies of *Home Safety Guidelines for Architects and Builders* are available at \$10.00 each from NTIS, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, Va 22151, Order No. PB-292-928.

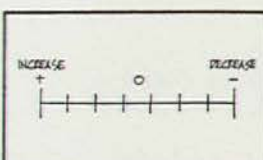
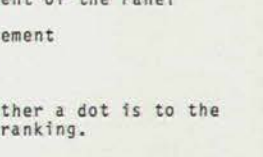
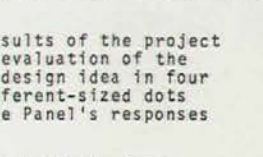
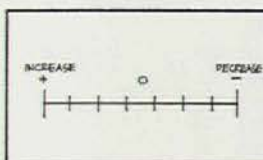
IMPACT ON ACCIDENT
REDUCTION



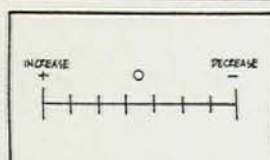
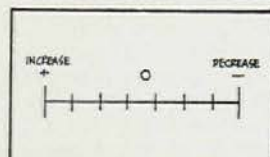
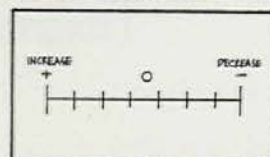
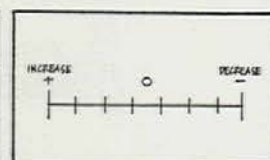
IMPACT ON DESIGN
PROCESS



IMPACT ON FIRST COSTS



IMPACT ON LIFE COSTS



Here we present the results of the project Safety Review Panel's evaluation of the effectiveness of each design idea in four categories. Three different-sized dots are used to signify the Panel's responses as follows:

- Total Agreement of the Panel
- Partial Agreement
- Disagreement

On each scale, the further a dot is to the right, the better the ranking.

THE FORMAT

Title: Home Safety Guidelines for Architects and Builders

Each year in the United States some 3.8 million people are injured in non-fire accidents involving residential stairs, doors, windows, bathtubs, showers, floors, and ramps. The combined costs of these injuries exceed \$2.5 billion, and while much effort has gone into research on accident-reduction strategies, little has been done to organize such information in forms useful to people who design, build, and use dwellings.

Beginning from this premise, the BOSTI team sought to evaluate, organize, and illustrate information useful in design and product selection. After careful analysis of statistics available from the Consumer Product Safety Commission and an extensive literature search, the group devised and evaluated a number of design approaches aimed at reducing opportunities for injury in the home.

The result is, in the author's terms, a guidebook of ideas, not answers. Seen ultimately as a section for use in the widely applied *Architectural Graphic Standards*, the material scales the effectiveness of certain design ideas in terms of first costs, life costs, and impacts on accident reduction and the design process.

Jury comments

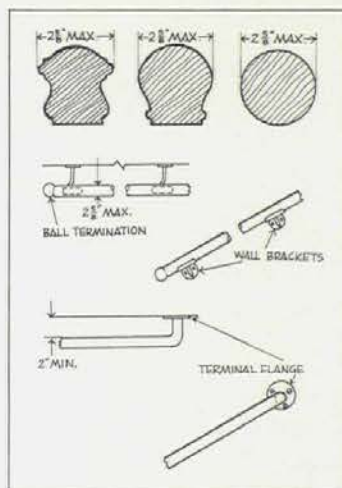
Cranz: In looking at this work I was reminded of a comment made by a juror from a previous year. He said that he looks for research that suggests new variables that need to be taken into account in the future. This one may not do research, but it uses previous research on accidents and integrates the statistics with a phenomenological description of the problem and a set of clear design guidelines.

Knowles: It takes things and puts them together in a terribly useful way. It is better than just programming. They've laid out design options and said in effect that these are not specific solutions to the problems but the way designs ought to perform.

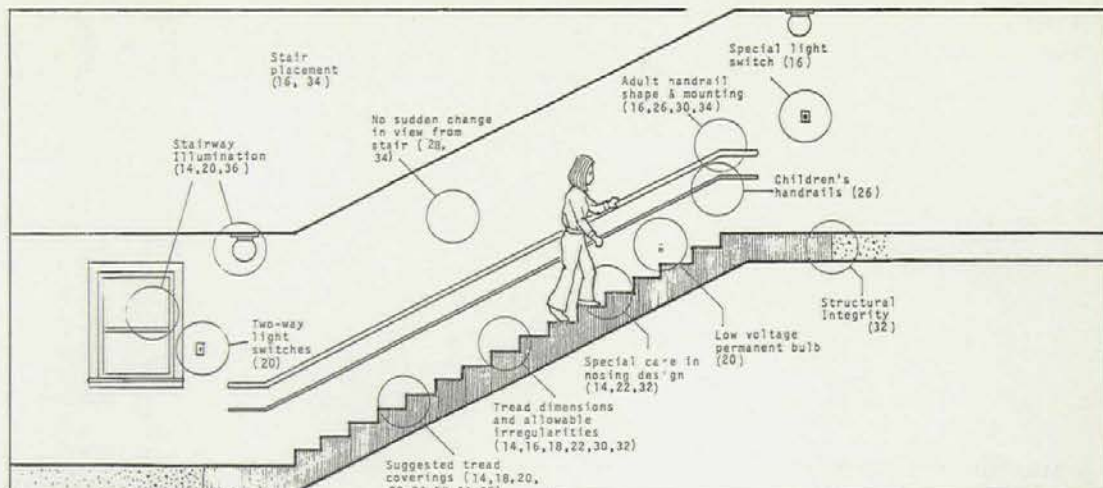
Cranz: There's another contribution. The book has a section on how to use the work. If I were using it, I would appreciate the way in which everything is laid out in the same type of format.

Knowles: It's a contribution in terms of communicating research results. The graphics are very clear. It's the most accessible research I've seen.

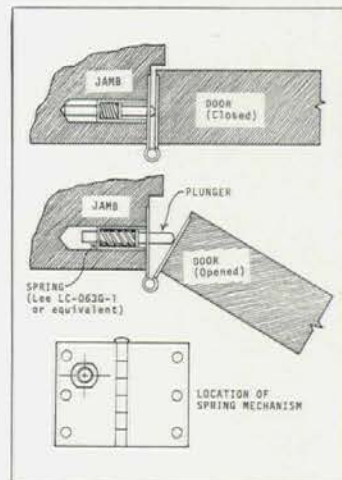
Cranz: I do question whether this work is organized for use by people other than architects. The base is there—you easily get the sense of being endangered in a building and what might be done about that—you can see how the senses are affected.



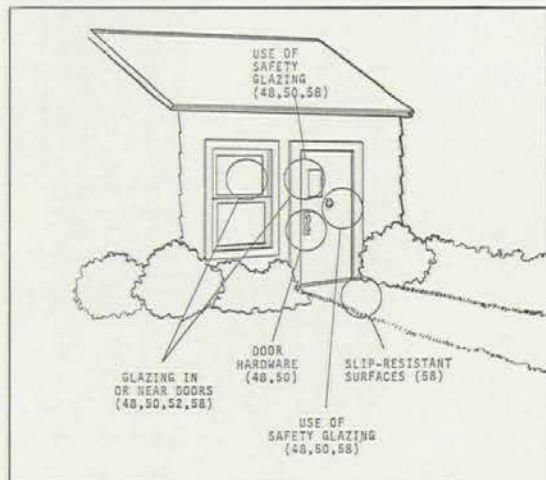
DESIGN DETAILS



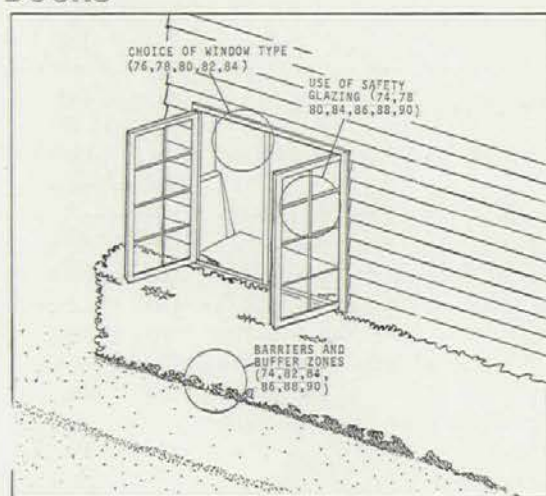
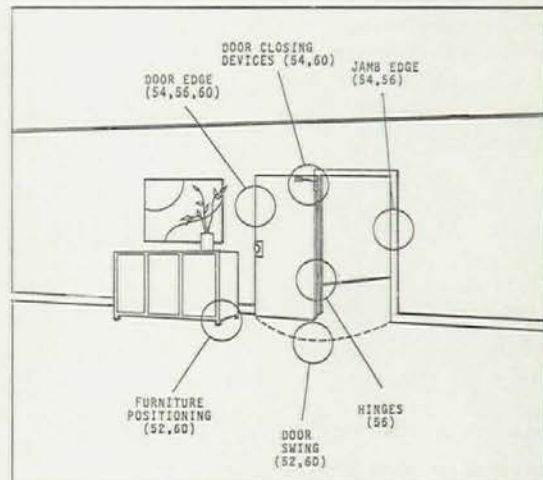
STAIRS



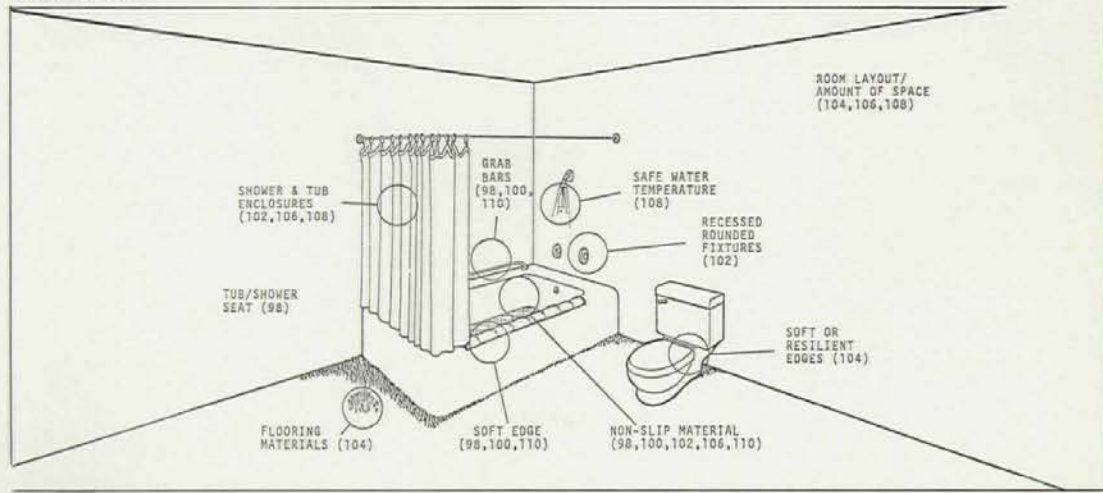
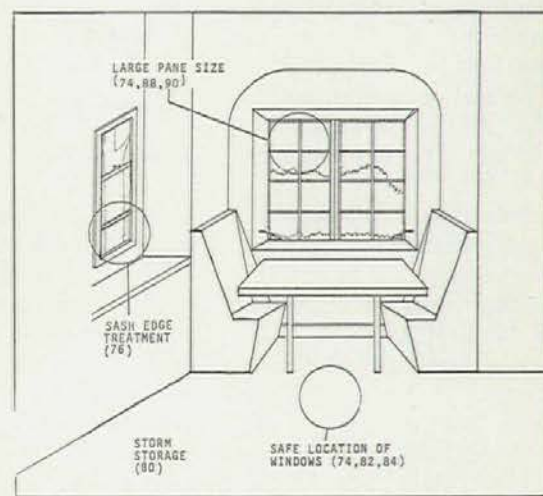
DESIGN DETAILS



DOORS



WINDOWS



BATHTUBS & SHOWERS

The Ehrenkrantz Group

An evaluation of rooftop urban agricultural projects, built and tended by residents, is appreciated for its clarity and pragmatism, and for its implications about energy and social recreation.

Credits

Architects: The Ehrenkrantz Group, New York.

Principal author: Michael Golubov.

Principal in charge: William Meyer.

Technical advisor: Stephen Weinstein.

Graphics: James Czajka.

Structural consultants: Geiger Berger Associates, P.C., David Geiger and Peter Galdi.

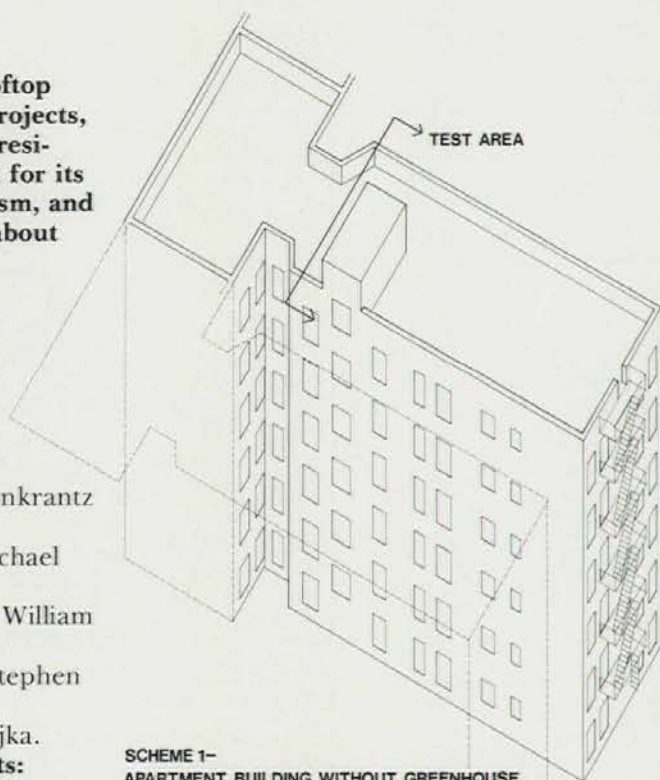
Mechanical consultants: Goldman Sokolow Copeland, John Leffler.

Community/labor consultant: Michael Bobker.

Horticulture consultant: Jan Johnsen.

Client: Northeast Solar Energy Center, Boston, and the U.S. Department of Energy.

Report: An executive summary of *Urban Rooftop Solar Greenhouse* is available, without charge, from Didier Thomas, Northeast Solar Energy Center, 470 Atlantic Ave., Boston, Ma 02110.



SCHEME 1—
APARTMENT BUILDING WITHOUT GREENHOUSE

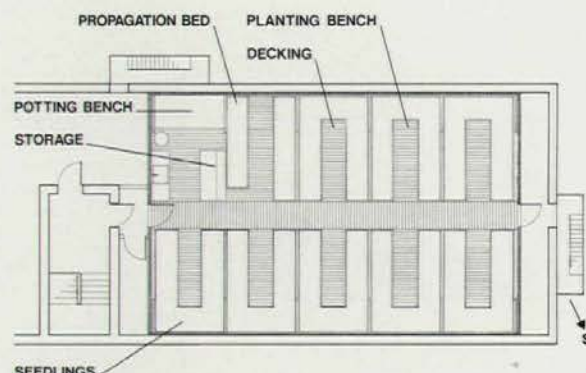
Title: Urban Rooftop Solar Greenhouse, Bronx, NY.

In a thick, technical volume that belies the study's more fanciful aspects, the team of architects, engineers, horticulturists and community organizers examines three alternate greenhouse systems for application to the roof of a typical Bronx midrise apartment building. Upon determining that the plant growth capabilities of the three designs were roughly similar, they concentrated on cost-effectiveness in terms of energy and capital investment, taking the value of crops produced into account.

Noting that greenhouse horticulture is probably the most intensive system of cropping in use when the three traditional factors of production—land, labor, and capital—are considered, the authors show that rooftop farms can yield astonishing numbers of tomatoes and lettuce heads.

Jury comments

Knowles: I think one has to look at the extensions of this research—not where we are now, but where we may go. There are a good many people who think that our future has a lot to do with evolving ideas and developing techniques for urban agriculture. In terms of the implications of my own work on solar access, surfaces of buildings take on an importance they have not had in the past. Roof terraces



GREENHOUSE LAYOUT, ALL SCHEMES

take on significance not just as places for recreation or the more traditional roof garden, but literally as places where we grow our food.

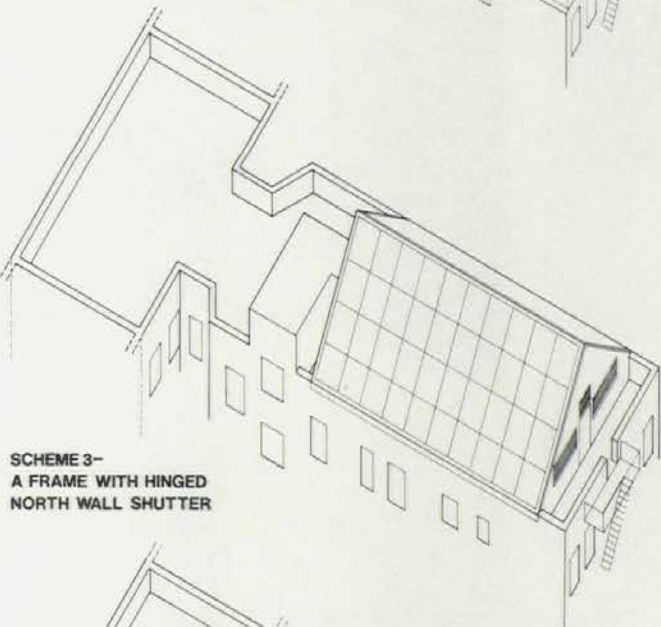
Cranz: The other point that gives it value is its link to social organization. It's funded through "sweat equity" and is owned cooperatively, so it has social components that make it more than just another solar thing on a rooftop. It has a strong populist orientation, but is then coupled with a very clear research design for evaluating very sophisticated technology. It's not pie in the sky. The marriage of these two elements appeals to us.

Knowles: It's as clear and well organized a piece of technical research as we've seen recently. It has a bit of a dreamlike, idealistic quality and is 60-ish in its possible implication that poor people get up on their roofs and make things grow. That is a little bit foolish. On the other hand, it is good research that many people can use. There is great interest in this.

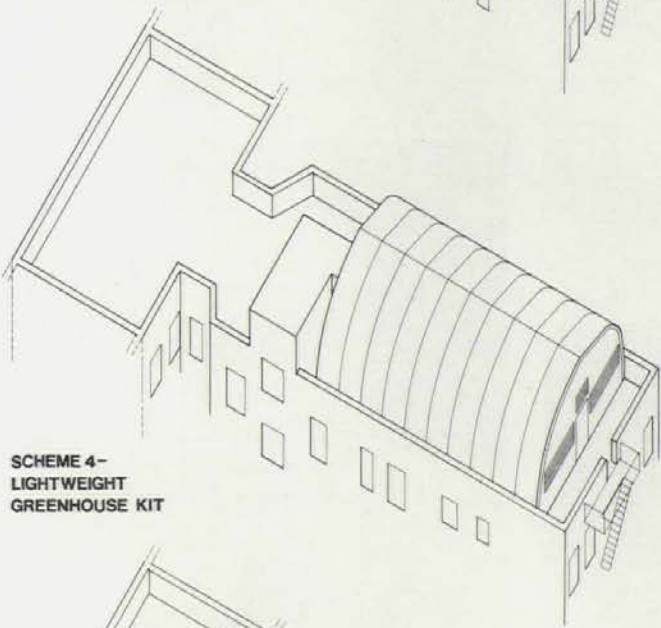
Cranz: It has the potential of raising design to the level of a public policy issue. The study does not address certain building code problems, and it is difficult to extract general recommendations, but it points in a direction that deserves recognition.

Knowles: The whole issue of urban agriculture is about to blossom in glowing color. As we start using more arable land for fuels projects and the like, the need to reclaim rooftops is likely to become critical. The whole issue of roof terraces, of designing buildings for areas you can commit to growing, is going to become a major issue. This is a limited warning of that, but it is certainly a warning.

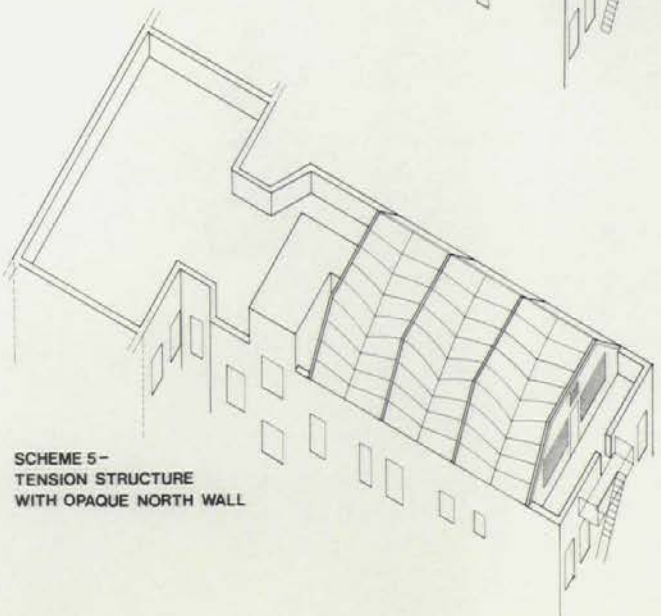
SCHEME 2-
CONVENTIONAL GREENHOUSE
(HORTICULTURE BASE CASE)



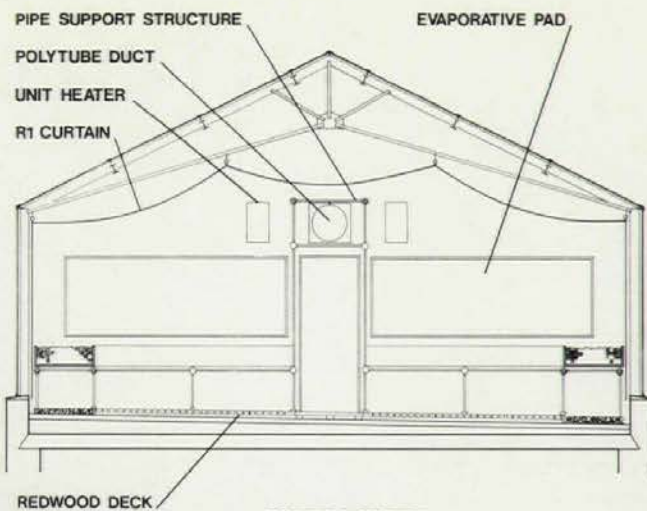
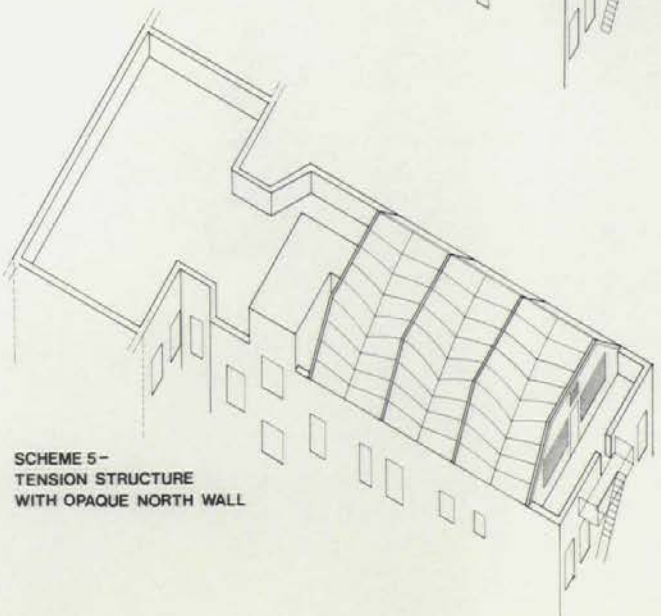
SCHEME 3-
A FRAME WITH HINGED
NORTH WALL SHUTTER



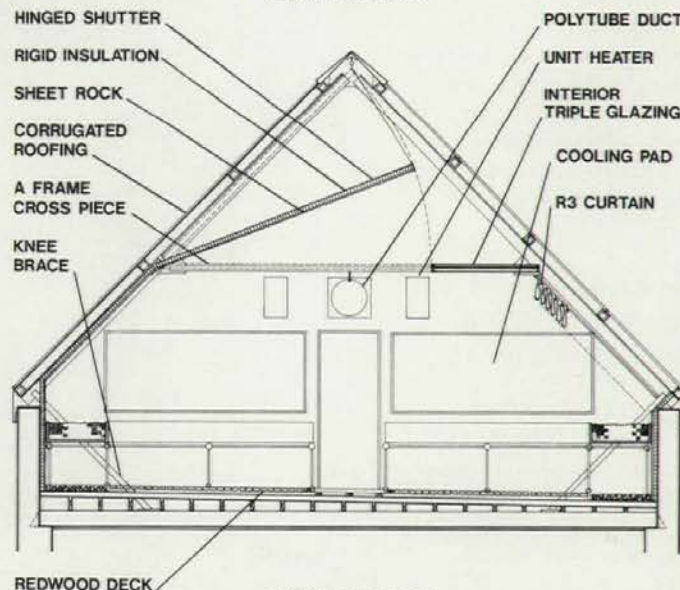
SCHEME 4-
LIGHTWEIGHT
GREENHOUSE KIT



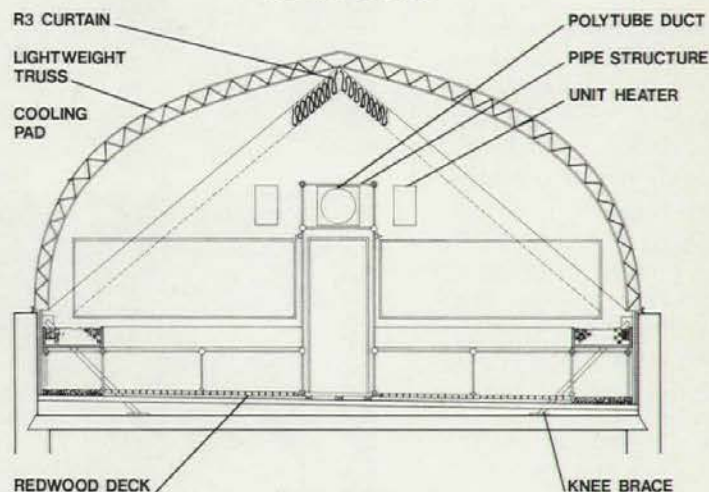
SCHEME 5-
TENSION STRUCTURE
WITH OPAQUE NORTH WALL



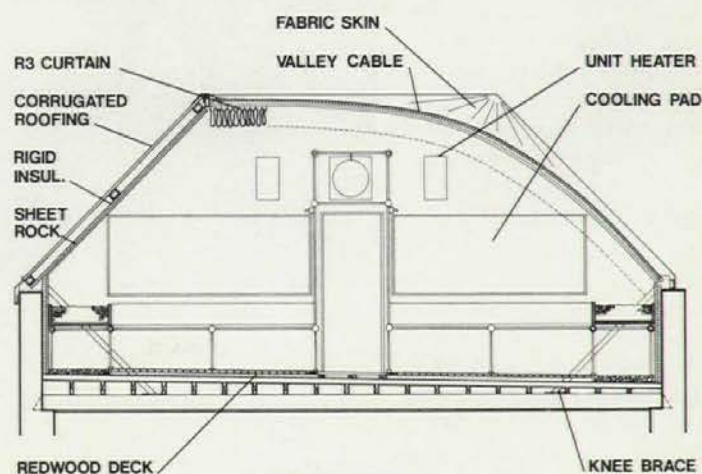
SCHEME 2 SECTION



SCHEME 3-SECTION



SCHEME 4 SECTION



SCHEME 5 SECTION

Architectural design

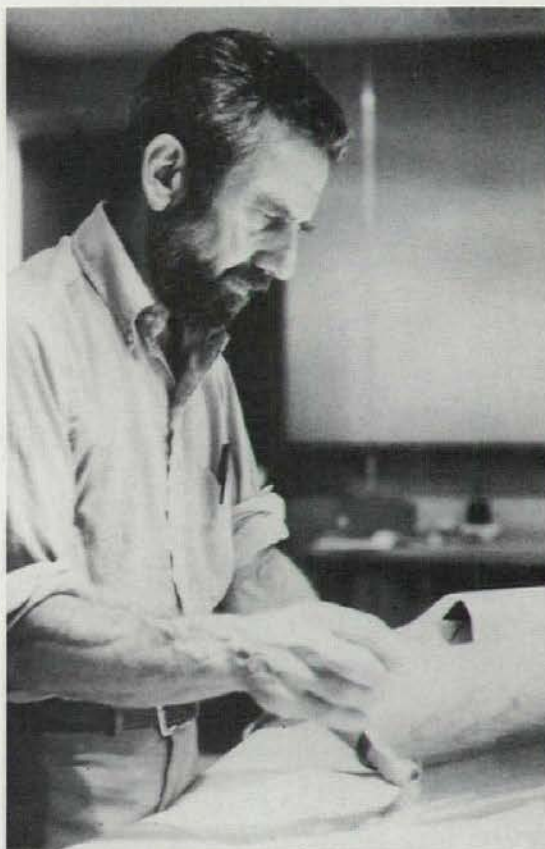
The jurors concentrating on architectural design entries were encouraged by the way the entries addressed serious concerns such as context and energy. At jury's end, 20 entries in this category had been selected for recognition, but only two elevated to the level of awards.

Richard G. Stein, FAIA, is a partner in The Stein Partnership, which he founded in 1961. He has been adjunct professor of architecture at Cooper Union, New York, since 1946, was chairman of the AIA Energy Task Force, 1972-74, and is the author of *Architecture and Energy* (Doubleday/Anchor, 1977).

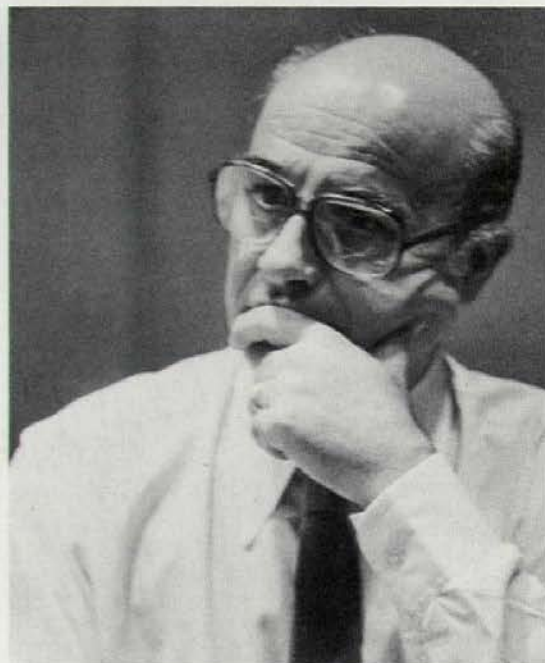
Romaldo Giurgola, FAIA, jury chairman, has been a partner of Mitchell/Giurgola Architects, New York and Philadelphia, since 1958. He is a professor at Columbia University, where he was chairman of architecture 1966-71, and taught at the University of Pennsylvania 1954-66. He is coauthor of *Louis I. Kahn* (Westview Press, 1975).

Robert J. Frasca, FAIA, is a member of the Zimmer-Gunsul-Frasca Partnership in Portland, Or, in charge of design since 1964. He holds degrees in both city planning and architecture and has been a visiting professor of Urban Design at three universities.

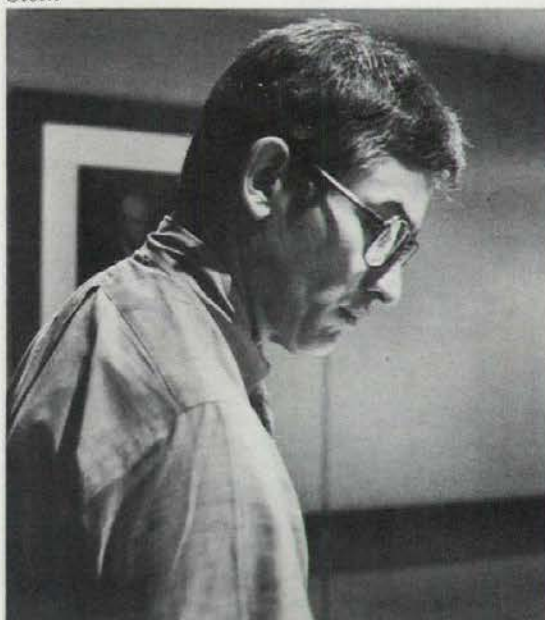
George E. Hartman, FAIA, has been a partner in Hartman-Cox Architects, Washington, DC, since 1965. He has taught at Catholic University of America and North Carolina State and has chaired the AIA Committee on Design.



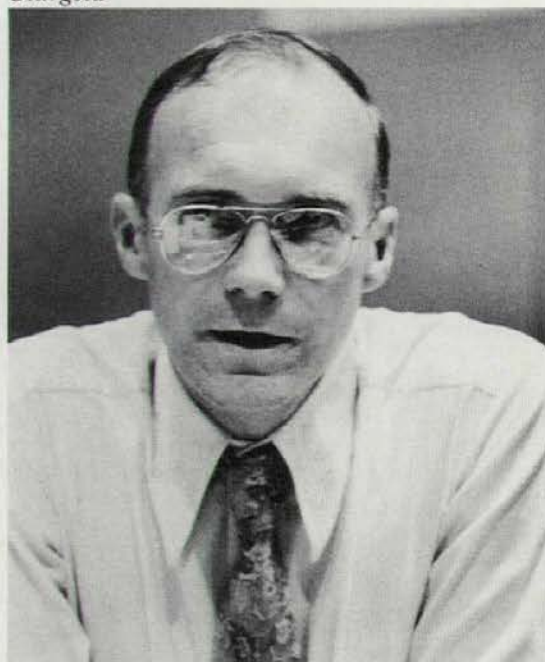
Stein



Giurgola



Frasca



Hartman

Photos of jury: Dorothy Alexander

The mood of this year's architectural design jurors could be characterized as sober and guarded. They were all concerned about such issues as energy conservation and response to context; they recognized as equally crucial the "content" or "appropriateness" of architectural form, but could agree on few examples of success in this area. Their guard was up against overcomplication—"clever solutions to trivial problems"—or overstatement; one project was said to have "a more complicated drawing than it has a complicated reality."

Their deliberations yielded, in the end, many citations, only two awards, and no first award at all.

Giurgola: I do feel that it is proper that we gave quite a few citations and very few awards. We tried to identify for awards those that have a very clear and classic connection among their parts.

Stein: The types that had the most satisfying, most humane solutions were the multifamily housing, the ones that began to solve urban problems. There was probably greater agreement among us on these, so it was easy to select—if not award-winners—at least solutions that merit citations.

Hartman: Half the stuff we have seen is just good honest buildings, appropriate to their programs and responsive to their sites. Everyone else is trying too hard and losing track of what they are trying to do.

Frasca: What's scaring me is that we are ending up with all "good professional jobs." Modern architecture has never really been able to address the issue of monumental scale. We've got a lot of building types which by nature are monumental, but the designs we get don't address that.

Giurgola: We have two awards, though, that are really monumental in scale.

Though at least one award-winner is monumental in both size and scale, this year's jury, like other recent ones, had difficulty finding winners among large-scaled projects. At one point, they set aside for review a selection of high-rise buildings, but held none of them for recognition. They attributed the outcome not to a lack of large-scaled entries—observed in previous years—but to the way such proposals were designed.

Frasca: When we struggled with the big office buildings, we found that, though they all tried to say something different, they obviously had nothing to say.

Hartman: The quality was inversely proportional to the size of the job.

Stein: We eventually rejected all of the fairly routine high-rise office buildings, but what interested me was the emergence of smaller scaled office projects—probably as a result of the work of the California state architect some years ago—which was beginning to change the perception of what a work space ought to be.

Energy-conscious design was—as noted in the introduction to this issue (p. 87)—a matter of particular interest. But addressing the problem of energy, even where a strong concept was put forward, by no means guaranteed recognition.



Giurgola: Among the winners that were clearly solar—if that is the word—are the San Jose office building and the solar housing. We considered quite a few, but the road to making those architectural solutions is really very long.

Stein: In more than half the solutions we looked at, though, there was a serious addressing of the energy performance of the building. There was an awareness, in almost all cases, of orientation and what effect that would have on different faces of the building. That is going to be a very important influence on the way all buildings are designed in the future.

Hartman: More and more projects are addressing every form of context—natural and man-made—which seems like a real gain.

The jury seemed remarkably optimistic, considering their restrained reaction here, about the future of architectural design.

Giurgola: The cycle of the Modern movement is far from being accomplished. It forged a language that everyone now understands, reaching a peak with Corbu, Aalto, and others. With Kahn, it began a return which, in many ways, could be more significant than its march forward. The manifestoes have been issued, the polemics written, and now the time has come for the painstaking working-through of all that has been proclaimed. This return in the cycle of the Modern movement is the period of reintegration [with the existing environment], and it is this quiet yet intense search for unity which we found manifested again and again in this year's presentations.

Hartman: It does seem that, once these things sift out, work should improve in the next three or four years. The splinters we are picking up—maybe 10 percent of the projects here—are very good. I think as people start to get it together, the quality of work should go up sharply.

In its last round of judging, the architectural design team scrutinized and discussed about 50 finalists.

Skidmore, Owings & Merrill

A huge airport in Jeddah, Saudi Arabia, is designed to accommodate 5000 travelers an hour making the annual Haj pilgrimage to Mecca.

Credits

Architects: Skidmore, Owings & Merrill, New York; Gordon Wildermuth, Roy O. Allen, Raul de Armas, Gordon Bunshaft, Parambir Gural, Fazlur Khan, John Winkler, partners in charge.

Construction manager: Saudi Arabian Parsons Ltd./Daniel International Ltd., a joint venture between the Ralph M. Parsons Co. of Pasadena, Ca, and Daniel International of Greenville, SC.

General contractor: Hochtief AG, Essen, West Germany.

Fabric roof system contractor: Owens-Corning Saudi Co., a joint venture between Owens-Corning and Olayan Saudi Holdings Co., Ltd., Al-Khobar, Saudi Arabia.

Client: International Airport Projects, Ministry of Defense and Aviation, The Kingdom of Saudi Arabia.

Project: New Jeddah International Airport, Jeddah, Saudi Arabia.

Program: Because every Moslem dreams of making the Haj pilgrimage to Mecca at least once in his or her life, and because more can now fly because of increased wealth of many Moslem countries, a new airport was needed to accommodate them. Five hundred thousand pilgrims arrived by air in 1975, and that number is expected to increase to 950,000 by 1985, the design year for the new airport, which is now in construction (P/A, June 1980, pp. 116-117).

Solution: The terminal and support complex consists in plan of two identical roofed halves, each 1050' x 2250', separated by a landscaped central mall with aprons running the outer lengths for docking airplanes. Upon deplaning, the passengers enter the second level of a 150,000-sq-meter air-conditioned terminal building where they go through the necessary formalities before descending a ramp to the baggage claim and customs area.

On leaving the terminal building, pilgrims arrive at the support area—an area of 45 hectares covered by fabric roof that provides shelter from the intense desert heat. The form and height of the fabric roof units promote circulation of air from the open side of the support area up to and through the open steel tension ring located at the top of the roof unit. In addition, the acoustical problems under the tents, created by servicing one million pilgrims twice over a two-month period, are diminished by the roof height (from 20 to 35 meters above ground) and material. Under each module are facilities for resting, sleeping, eating, and other necessities, such as banking, postal, and travel.

Construction methods and materials: There are 210 semiconical fabric roof units contained within ten modules, five of which are on each side of a central spine entry road covering an area of approximately 105 acres. A single module contains 21 semiconical coated fiberglass fabric roof units stretched and formed by 32 radial cables. The modules are supported by 45-meter-high steel pylons located on a square 45-meter grid. The columns taper from 2.50 meters at their base to 1.00 meter at the top. In each module, steel cables radiate from the top of the columns to a 3.96-meter-diameter central steel tension ring to which is attached the steel radial cables. The inherent long-span characteristics of the steel cable structures allow for column spacing to be far enough apart to give not

only a very open feeling to the large area, but also to allow for maximum flexibility in planning for the various support buildings located within the area.

Jury comments

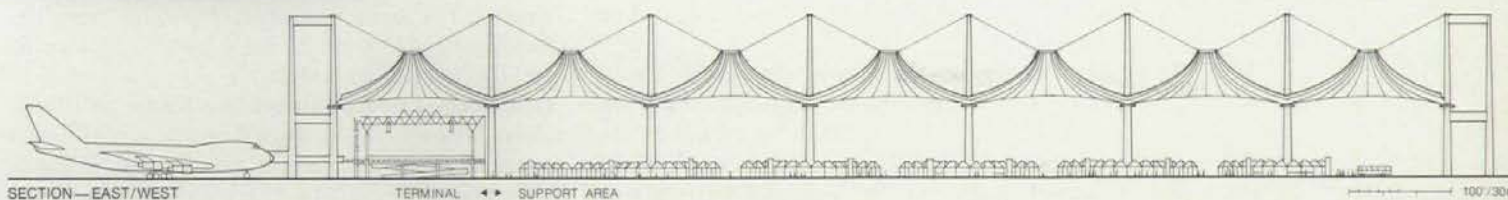
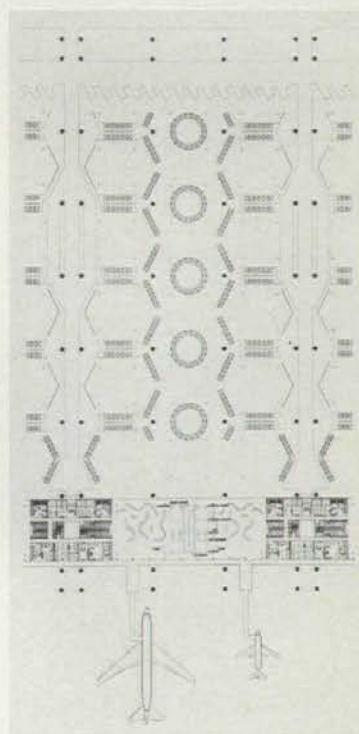
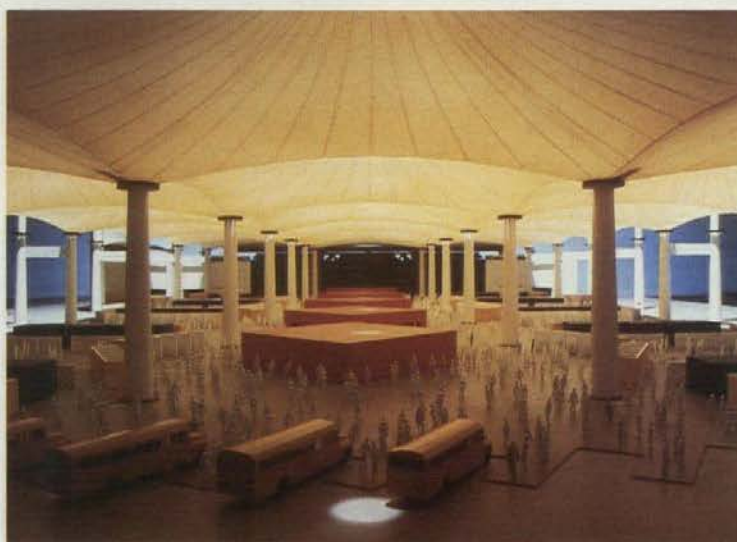
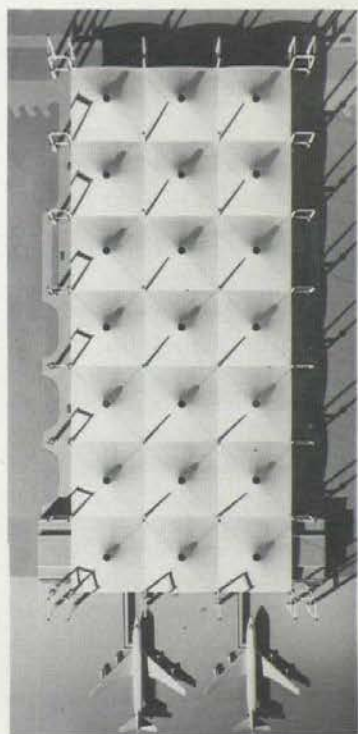
Frasca: This building is already pretty well known; it's one of the largest airports in the world. It's in a very inhospitable climate, where large numbers of people collect in a huge crush a few times a year, and it's essential to keep them out of the sun.

Giurgola: The real goal of this building is the terminal building, and that is the thing we were less happy about. It's where you get your ticket and where everyone comes in, but it's just treated as a transition element.

Stein: Yes, there is a discrepancy between the elegance and the expressive solution of this great tent structure and the rather mean building that serves as the transfer building throughout most of the year. Considering the generosity, the scope, the imagination, and the quality of that enormous waiting structure, it seems strange to have a really very constricted and not very environmentally responsive building for the rest of the year. If you say you can create a satisfactory environment by having a high tent structure that allows the stratified hot air and the winds to come through and act as a cooling agent, then you don't go to the conventional closed box with all its problems of building internal heat and having no way to exhaust it except through massive mechanical means.

Frasca: I don't know that that's necessarily true, because with the huge tent structure, you're dealing with a huge mass of people a few times a year where you can't possibly handle that; and with the much smaller terminal building, you're dealing with a very few people most of the year, and in fact you can afford the mechanical means. In general, this is a very beautiful structure done with great economy of means. It's one of the few buildings that have tried very hard to speak to a vernacular or a tradition, if there is one, which really comes close to that. It's symbolic, in a heroic sense, of the kind of shelter that exists there. It has the beginnings of a new architecture.

Stein: The tent structure is a really wonderful solution, and on the basis of having solved that so brilliantly, this project needs to be recognized.



Evan L. Schwartz

A maritime museum is built on the site of the company's original boatworks.

Credits

Architect: Evan L. Schwartz, New York. Evan L. Schwartz, principal for design; Alison Bond, Robert Jones, Al Nelson, project team.

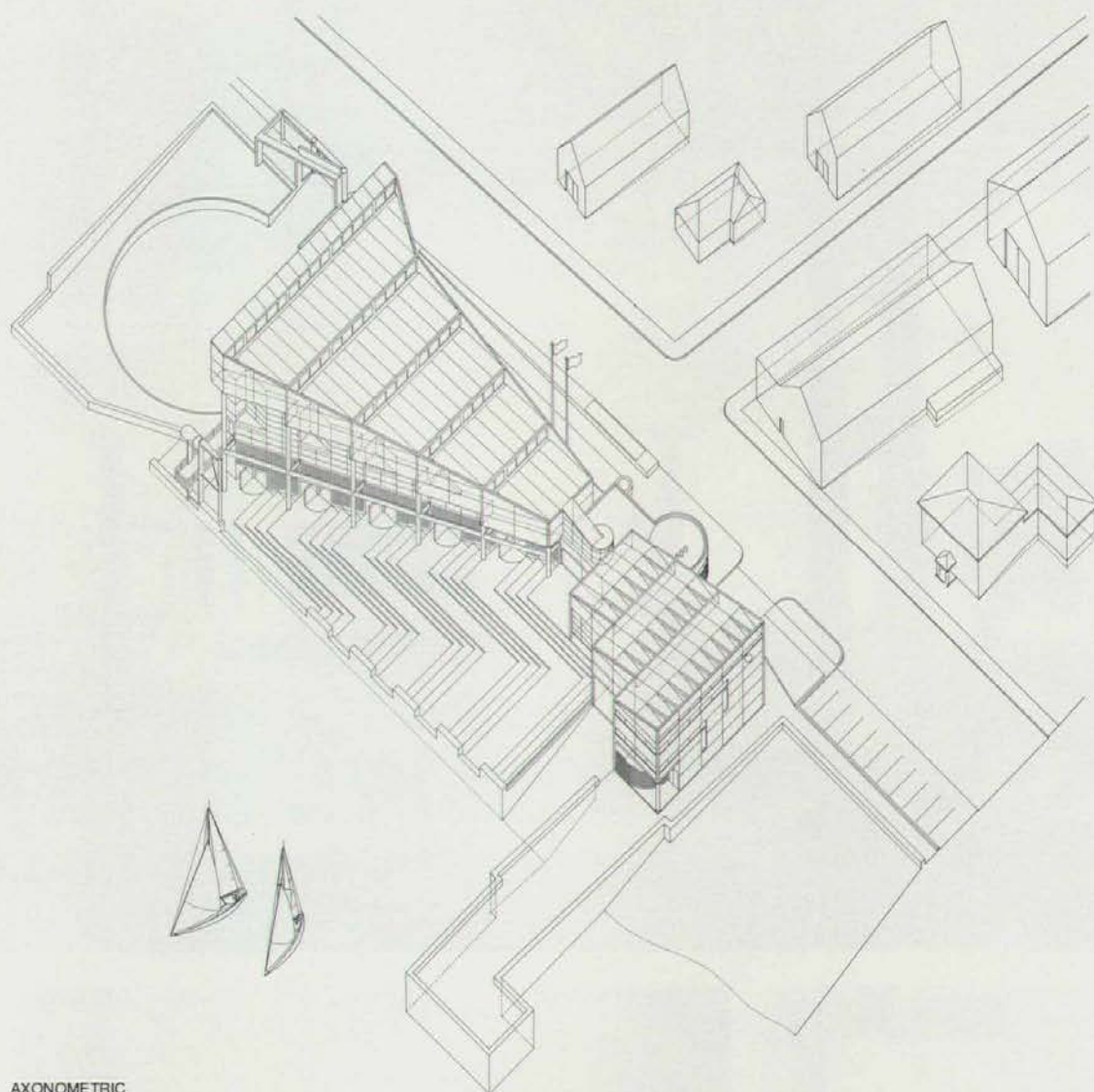
Consultants: Lisanti Engineering, structural; Kravchenko & Associates, site; Vreeland & Guerriero, landscape architects; Donovan & Green, graphics.

Modelmaker: Cricket Purdy.

Model photographers:

Jonathan Morse, Evan L. Schwartz.

Client: Herreshoff Foundation, Bristol, RI.



AXONOMETRIC

Project: Herreshoff Yachting Museum, Bristol, RI.

Program: 21,500-sq-ft museum to house a historic exhibit of wooden boats and yachts by Herreshoff.

Site: 4.2 unoccupied, waterfront acres on the former location of the original Herreshoff boatworks destroyed by hurricane in 1938.

Solution: Two wedge forms intersecting at the entrance, which is distinguished by a cylindrical projection to one side. The façade facing the harbor is colonnaded, and the triangular open space between building and harbor is sod and terraced gradually to the water's edge. Adjacent to the terrace are large doors on vertical pivots. Inside, natural wood is used to complement the exhibits. There is a progressive increase in height and length of bays to accommodate increasingly larger boats. The shed roof is intended as a reference to sails and traditional New England architecture.

Construction methods and materials: Heavy timber truss construction supported by tubular steel columns with 30-ft bays in the long direction and, in the short direction, bay size increases progressively. East and west façades

are clad in stained vertical cedar siding. Exterior columns and beams are painted yellow. Ceiling in exhibition areas is sailcloth, flooring is oak.

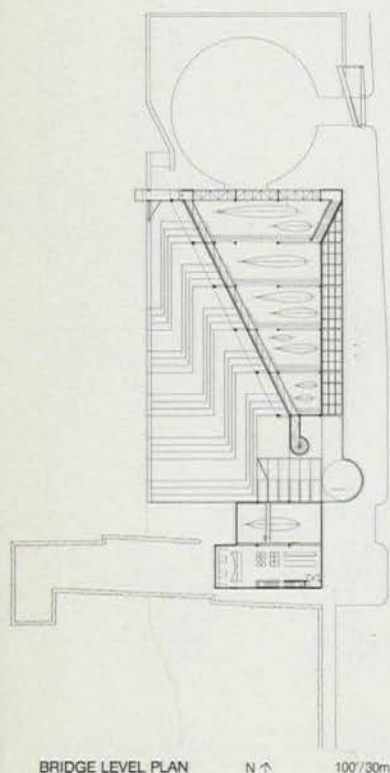
Jury comments

Giurgola: There is a balanced relationship of volumes and uses, open spaces and enclosures. The scheme has a direct correlation between the diagram of moving people, the scale of objects inside, and a resulting form that is very clear. The entrance is defined clearly and the building has degrees in scale for housing the large elements. Each one of these different sized spaces opens onto an outside yard. The public goes through and then out. It is a really classic piece of architecture, without that confused dilemma of overlapping images.

Bacon: The outside space is very dead.

Frasca: It's just a piazza on the water, and it is the area that ought to be a pleasant place to be, for people to collect.

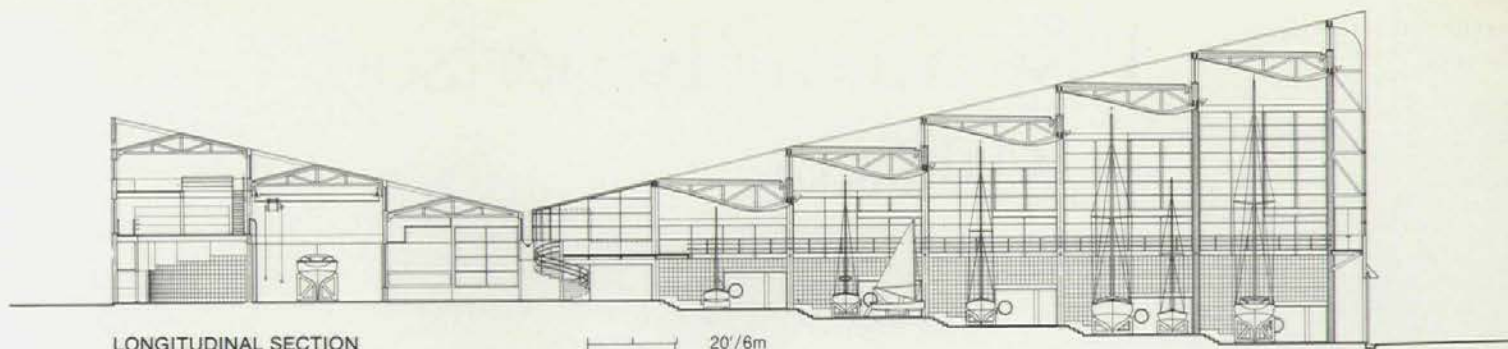
Giurgola: The building has a form, a dimension. It deserves the award because it adheres to the reality of a place: it has both beauty and substance, the nature of true classicism.



BRIDGE LEVEL PLAN

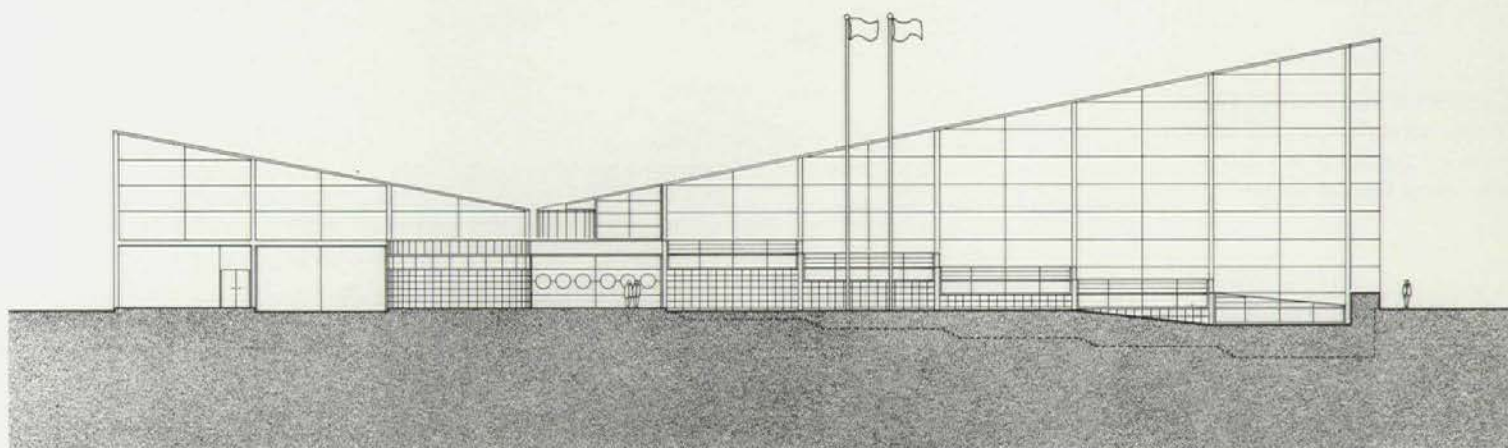
N ↑

100'/30m



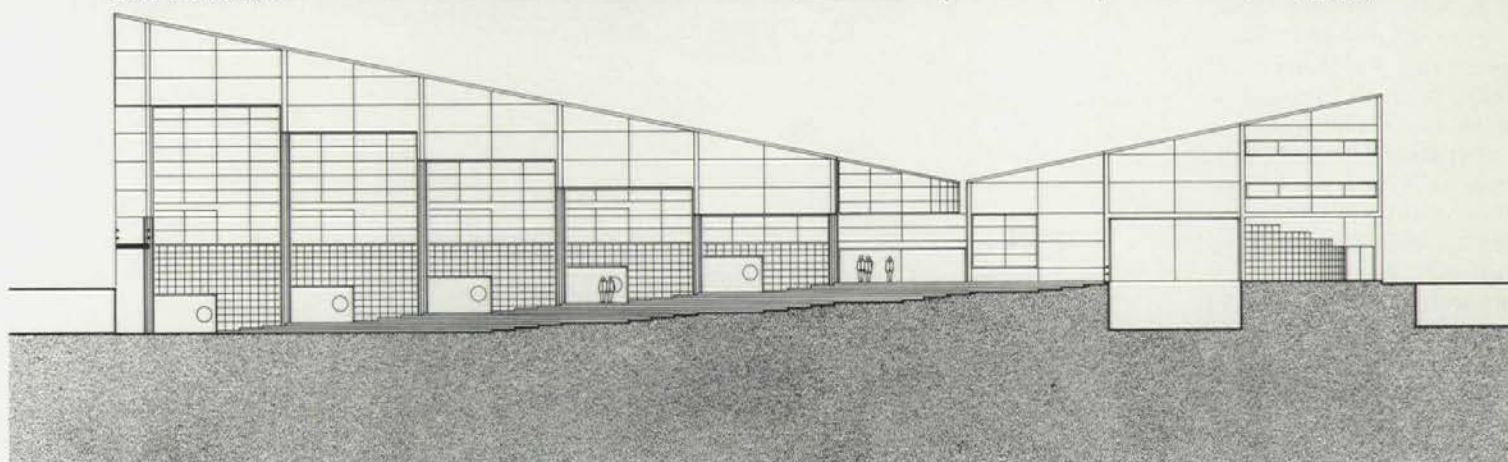
LONGITUDINAL SECTION

20' / 6m

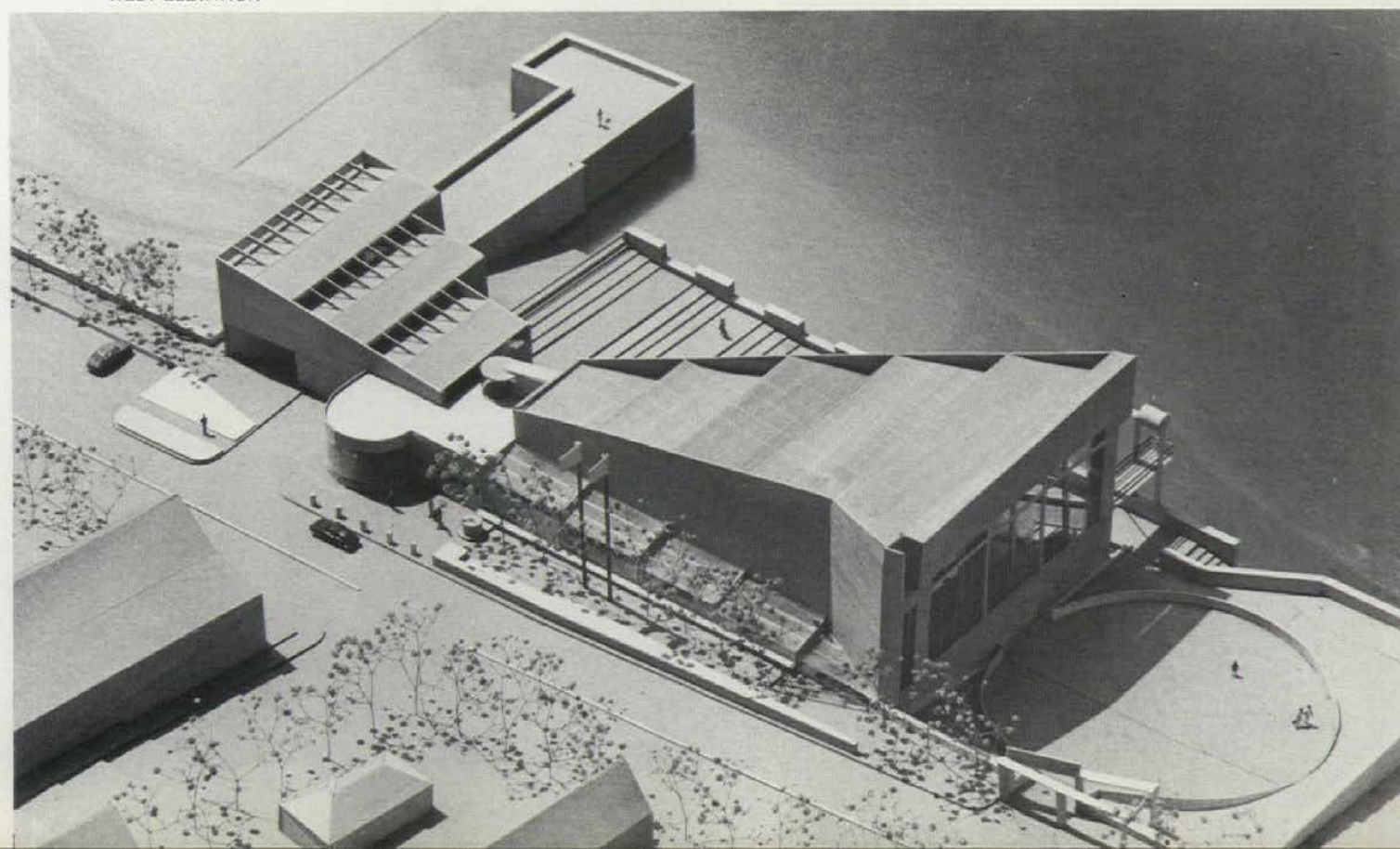


EAST ELEVATION

100' / 30m



WEST ELEVATION



Eisenman/Robertson Architects

Context is the central issue in this vacation house with a profile intended to mirror the Long Island dunes.

Credits

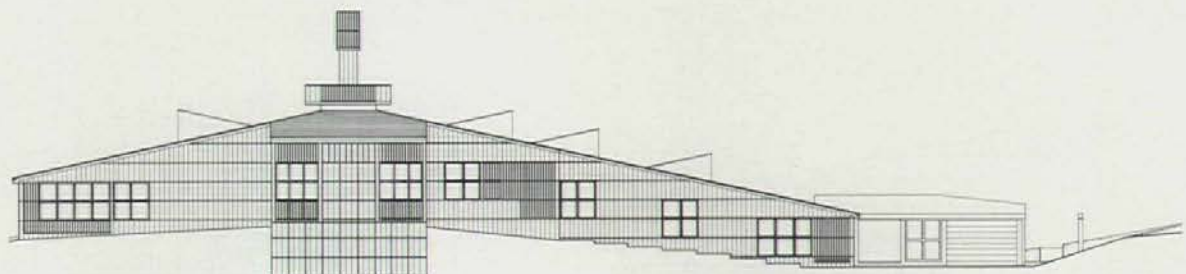
Architects: Eisenman/Robertson Architects, New York. Jaquelin Taylor Robertson, partner in charge; Edmund H. Stoecklein, project architect; Glen Fries, John Reagan, project team.

Consultants: Robert Silman, structural; Marvin Lewin, Cosentini Associates, mechanical; Carroll Cline, lighting.

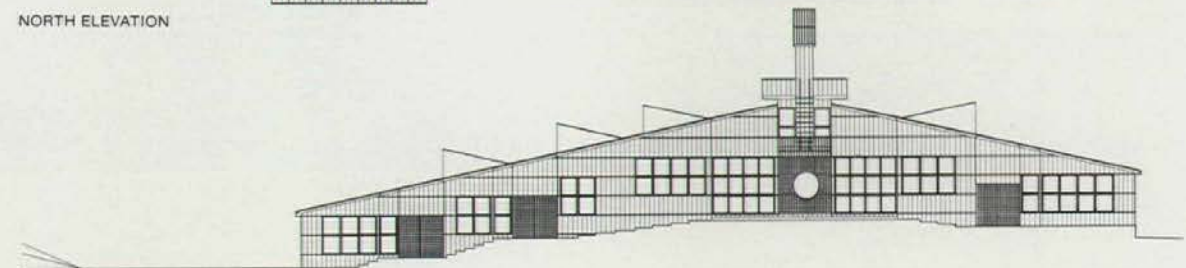
Modelmaker: Edmund H. Stoecklein, Glen Fries, John Reagan.

Model photographer: Edmund H. Stoecklein.

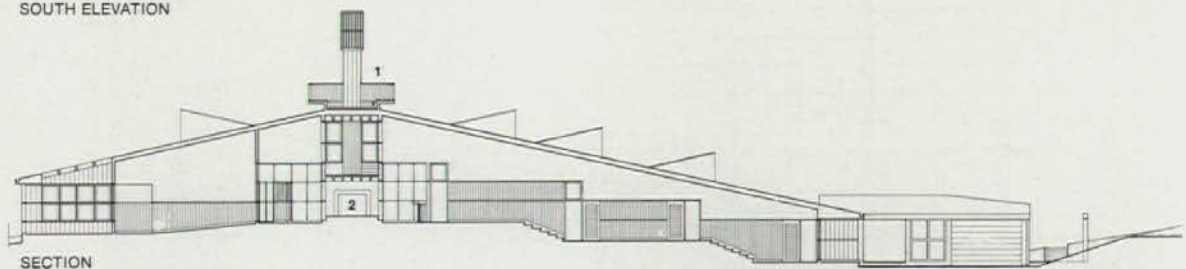
Client: Daniel Lufkin, New York.



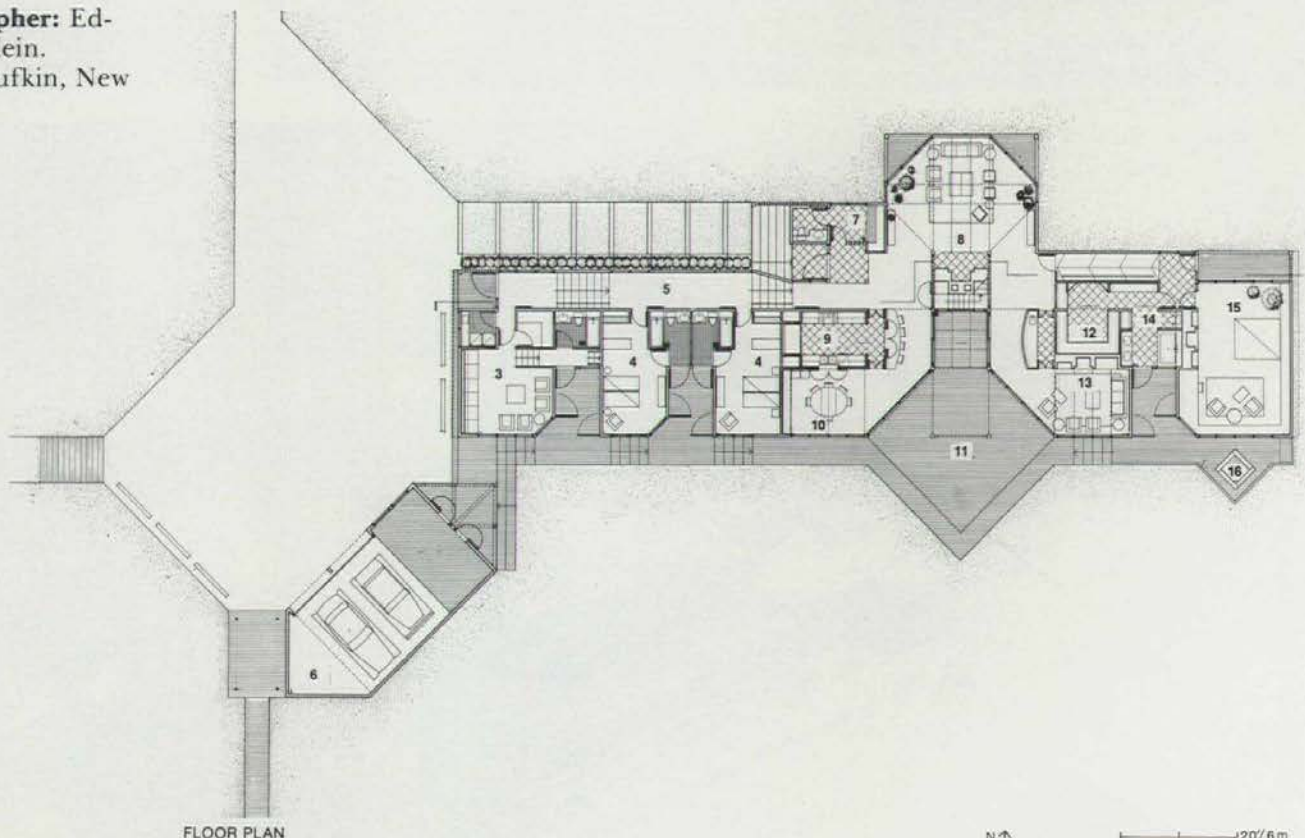
NORTH ELEVATION



SOUTH ELEVATION



SECTION



Legend

- 1 Widow's walk
- 2 Inglenook
- 3 Play/bunk room
- 4 Guest
- 5 Gallery
- 6 Garage/storage
- 7 Cloak room
- 8 Living room
- 9 Kitchen
- 10 Dining
- 11 Deck
- 12 Dressing
- 13 Study
- 14 Bath
- 15 Master bedroom
- 16 Hot tub

FLOOR PLAN

N ↑

1/20' / 6 m

Project: Lufkin House, Southampton, NY.

Program: 4000-sq-ft weekend and summer house for family of six.

Site: Eight acres on duneline overlooking both beach and bayfront.

Solution: Two parallel circulation systems, one along the back of the house and the other an exterior boardwalk along the beachfront, allow cross-ventilation in all rooms and easy access at many points. Children and guest suites have their own entry and can be closed off during winter. Each set of rooms interconnects for entertaining large numbers of people. Each suite has a private sunyard entering into a bathroom to prevent tracking sand. Public spaces are grouped around an open deck with a double-height living room that looks onto the bay. Stairs wind around the massive fireplace and chimney stack to a landing overlooking the living room and up to a protected second-story deck. From there, a ship's ladder rises to a crow's nest with panoramic view.

Construction methods and materials: Wood frame on piles. Exterior sheathing is rough-sawn, marine-grade plywood with vertical and horizontal battens covering joints. Roof is asphalt shingle. Interiors are painted gypsum board and oak wainscoting with oak strip and tile floors. Decking is redwood. Solar panels above garage provide supplementary hot water heating.

Jury comments

Giurgola: With all its manors, Southampton has a scale different from other small towns. This sort of captures that scale and spirit. It has a certain grandeur.

Stein: I don't think that it has any particular merit.

Giurgola: Here the notion of working with the shape of the dunes, the grand gesture of a Southampton mansion, really comes out very strongly. It's a very clear plan, understandable, and yet maintains the diversity of having different spaces. You open doors and come out of rooms and so forth.

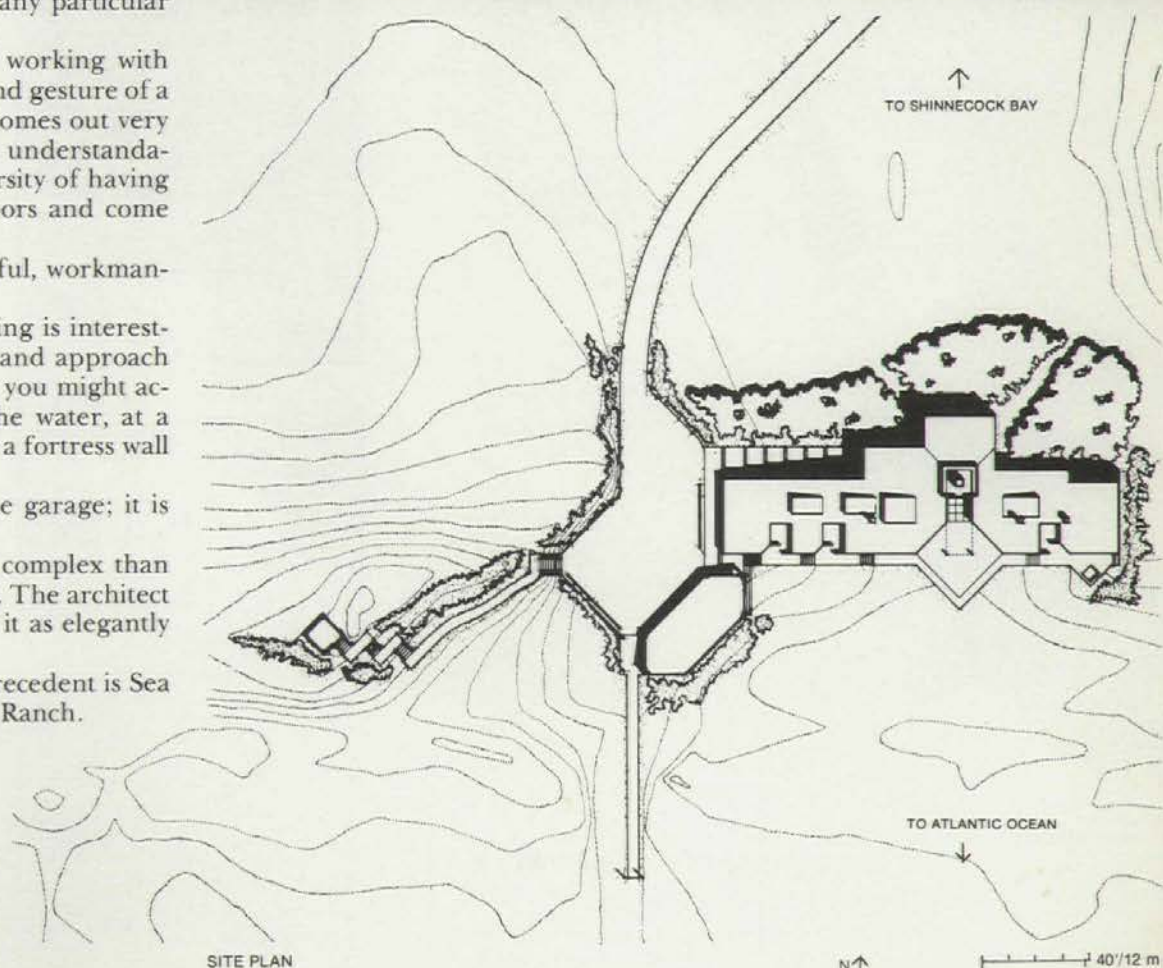
Frasca: It's done in a very skillful, workman-like way.

Hartman: The double-scale thing is interesting. The scale at the entrance and approach elevation seems like something you might actually walk up to; but from the water, at a distance, it becomes almost like a fortress wall lying against the coast.

Giurgola: I am sorry about the garage; it is almost an afterthought.

Stein: It becomes much more complex than its great Newport predecessors. The architect just hasn't been satisfied to do it as elegantly as it was done previously.

Hartman: In some ways, the precedent is Sea Ranch. It's a single-family Sea Ranch.



SITE PLAN

N↑

40'/12 m

SITE

Prototype for branch banks makes use of literal imagery to convey the dual functions of saving and lending.

Credits

Architects: SITE, New York.

Client: Perpetual Savings and Loan, Rapid City, SD.

Project: Perpetual Savings and Loan prototype branch, South Dakota.

Program: 1500-sq-ft branch banks, at a cost of approximately \$250,000 per bank, to provide savings and loan services with a four- to six-person staff. Client wished an image that suggested both financial security and an adventuresome spirit.

Site: $\frac{3}{4}$ acre in various communities in South Dakota.

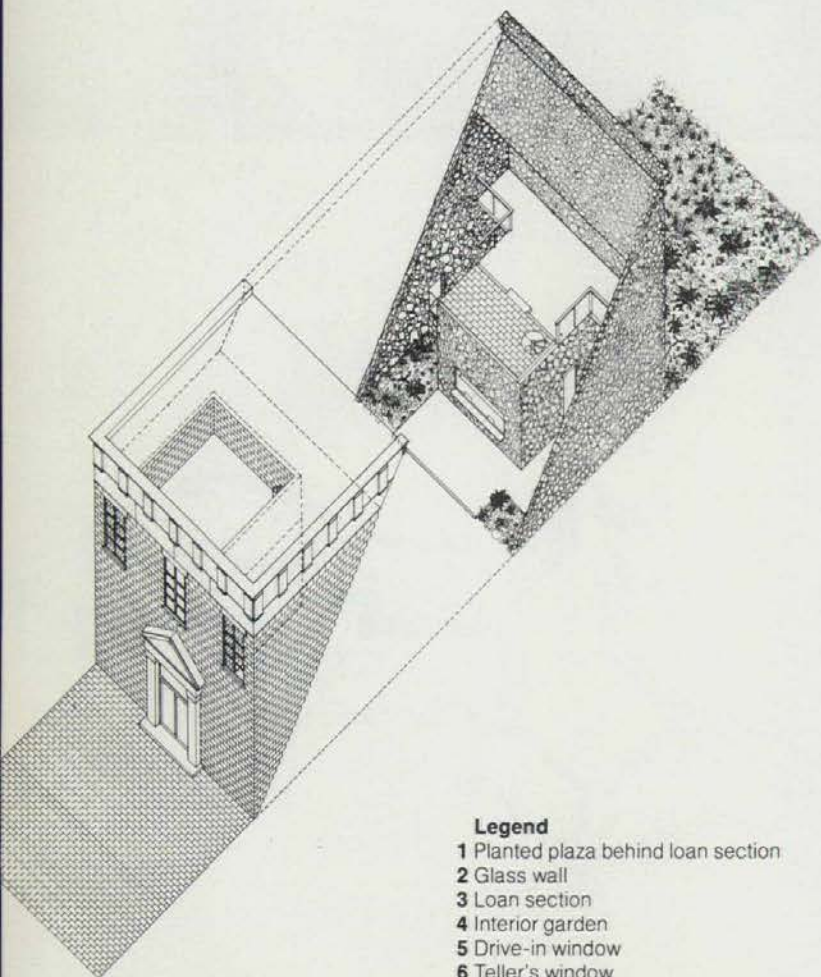
Solution: 37-ft-square cube in plan and elevation, split diagonally. One half is Greek Revival style in white block and contains the savings personnel. The other half contains the loan department and is intended to represent creativity, the bank being known for a more experimental loan policy than its competitors. Its exterior is to be made of regional stone,

and there is to be a planted plaza in back that extends into the loan area as an interior garden. Planting will consist of regional vegetation or possibly local crops.

Construction methods and materials: White block and stone with glass at the point of intersection. Glass wall between plaza and loan department.

Jury comments

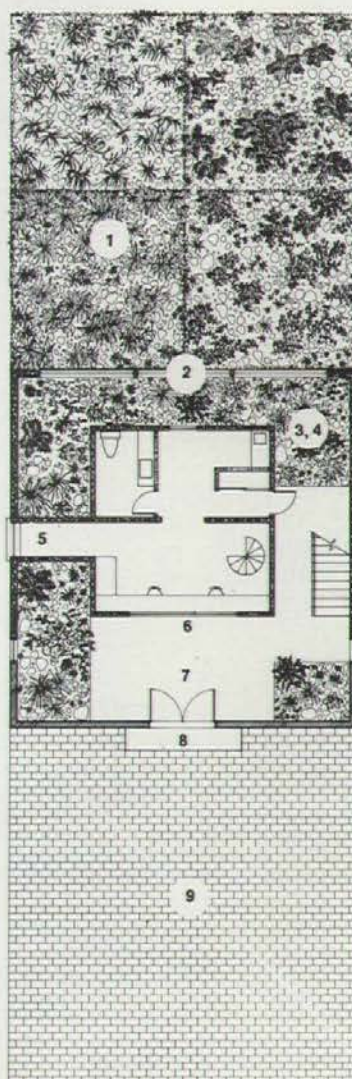
Giurgola: It's a delightful image in the middle of South Dakota. It has a wry humor and intelligent spaces. The images and metaphors are comprehended within a clear plan/section structure, in which the value lies in that subtle combination and relationship of a few contrasting elements. It's not only an ornament, it's also a little organism in itself.



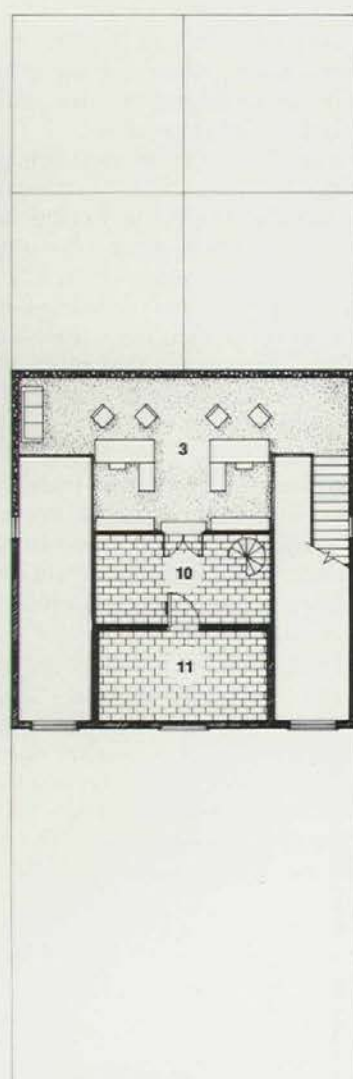
AXONOMETRIC

Legend

- 1 Planted plaza behind loan section
- 2 Glass wall
- 3 Loan section
- 4 Interior garden
- 5 Drive-in window
- 6 Teller's window
- 7 Customer waiting area
- 8 Main entrance (into savings section)
- 9 Plaza in front of savings section
- 10 Vault (savings section)
- 11 Safe deposit section (savings section)



FIRST FLOOR PLAN



SECOND FLOOR PLAN

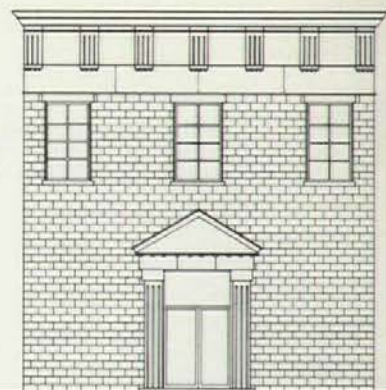
Stein: I must say I get a little bored with architectural one-liners. This one is almost a patronizing gesture. The humor is an imposed humor, and I don't see that it's either desirable, necessary, or handled with remarkable sophistication or skill.

Frasca: I think this is an attempt at the problem of a very small building with simple functional requirements and no context where you essentially try to give it some importance and dignity. It's done here with less pretension than it might have been, and it's quite appropriate. At least it doesn't look like a gas station or a hot dog stand.

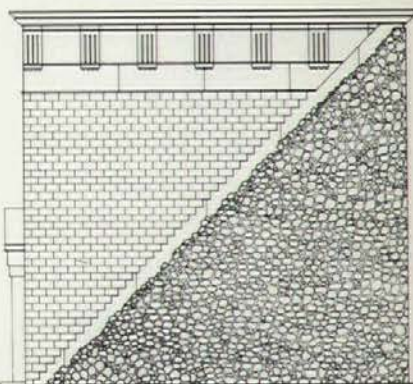
Hartman: I think the allusions and the liberties taken are perfectly appropriate and come out of the inherent difficulties of the problem.

Stein: But go back to the regional precedents the architect includes as an introduction. Each of those buildings was done as a very serious building in its own time, within its own culture, its own context, its own available vocabulary. Each one stands today as something to be looked at very sympathetically.

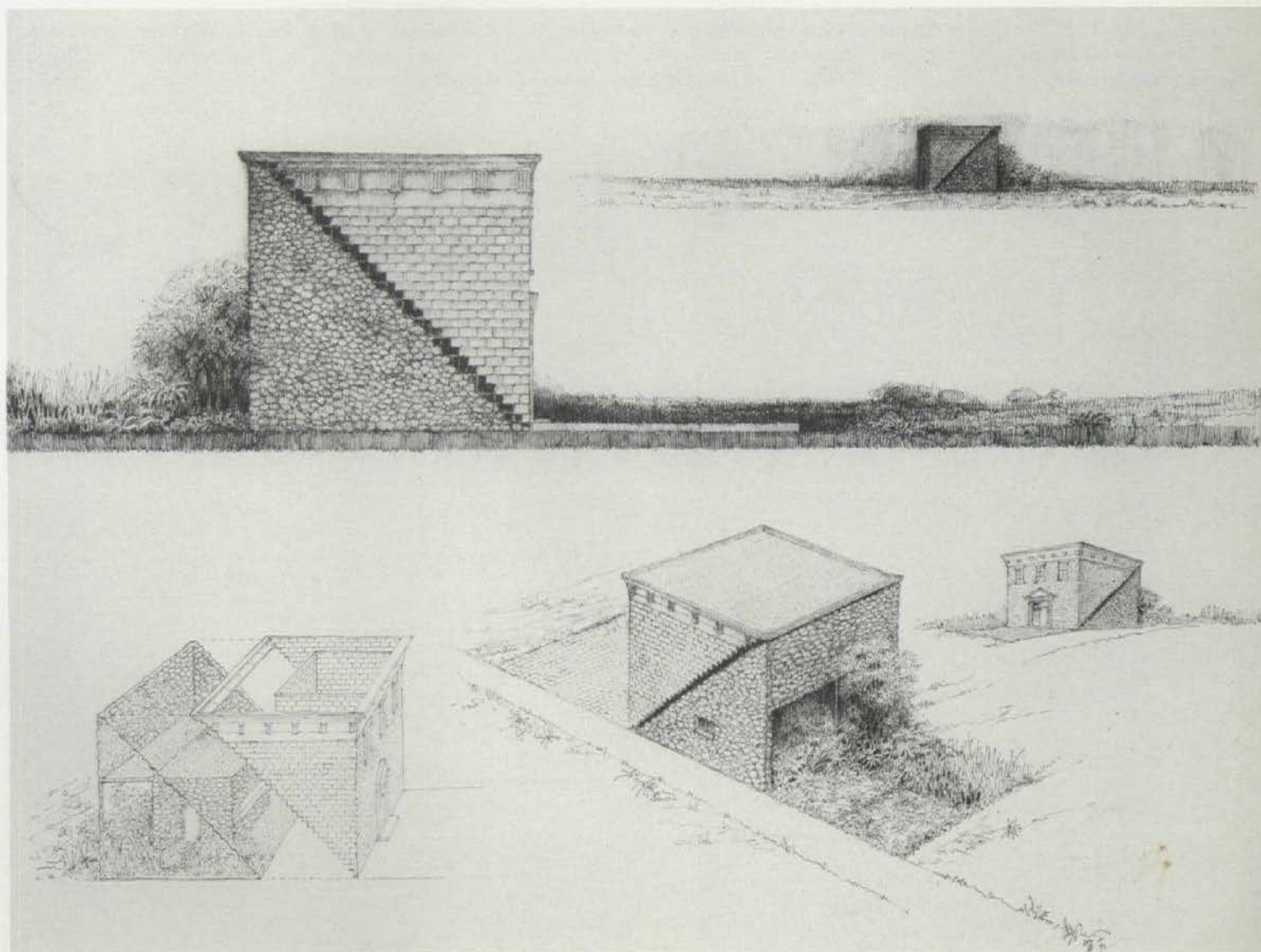
Giurgola: I still believe this project has an exceptional poetic value, obtained with no breach of discipline. It has all the benefits of an image without falling into the sort of stereotype kind of playing with columns and banks of the past. The drawings are superb.



FRONT ELEVATION



RIGHT ELEVATION



Woo & Williams

An extraordinary natural site is exploited in this restaurant and visitor's center for a national park.

Credits

Architects: Woo & Williams, Cambridge, Ma. Kyu Sung Woo, John G. Williams, principals; Peter Polhemus, job captain; Clara Batchelor, landscape architect; Linda Gatter, Cynthia Larsen-Hughs, assistants.

Consultants: John Born Associates, structural; Ibrahim & Ibrahim, mechanical.

Model photographer: Richard Bonarrigo.

Client: The Island Foundation for the National Park Service, Mount Desert, Me.

Project: Jordan Pond House, Acadia National Park, Mount Desert, Me.

Program: Restaurant seating 200 people, dining porch and outdoor lawn for afternoon tea and popovers. The building also serves as entrance to the park trails and contains a craft shop; 14,000 sq ft.

Site: Approximately 10 acres at the southern end of a deep glacial valley. To the north is Jordan Pond and two massive granite domes known as the Bubbles.

Solution: An L-shaped building cradling a large meadow that is carved from the woods between the site and Jordan Pond. Entry is under a low, dark porch. Craft shop, kitchen, and entry are kept to the non-pond side of the building with dining areas, both inside and on the verandah, facing the tea lawn and dramatic view beyond.

Construction methods and materials: Wood frame; naturally weathered eastern white cedar shingle exterior; cedar siding bleached

to a different tone on face and ceiling of porch; terra-cotta brick paving and retaining walls; local pink granite fireplaces.

Jury comments

Hartman: I think this is one of the best recreational entries that I have seen.

Giurgola: A very simple plan.

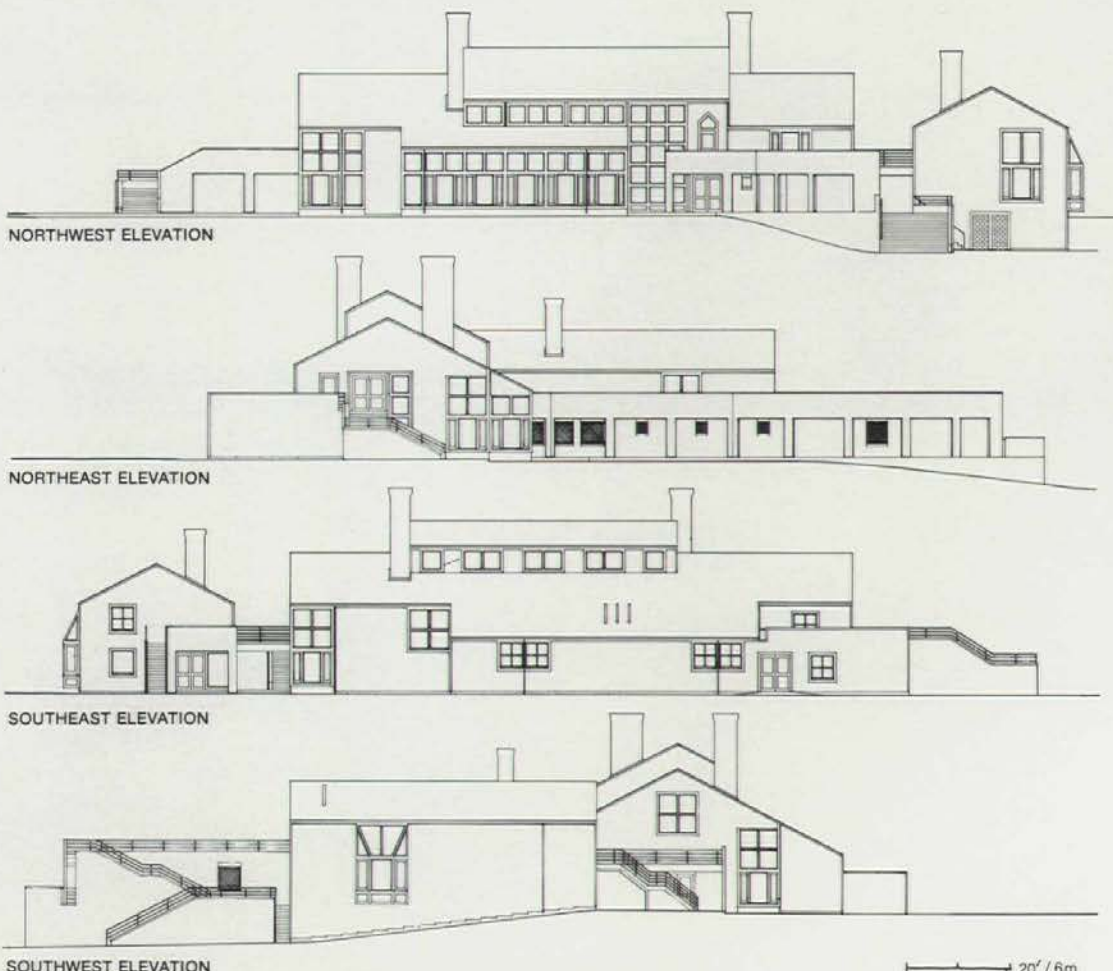
Frasca: I'm cool on it. If you look at the spaces and things, they're not remarkable.

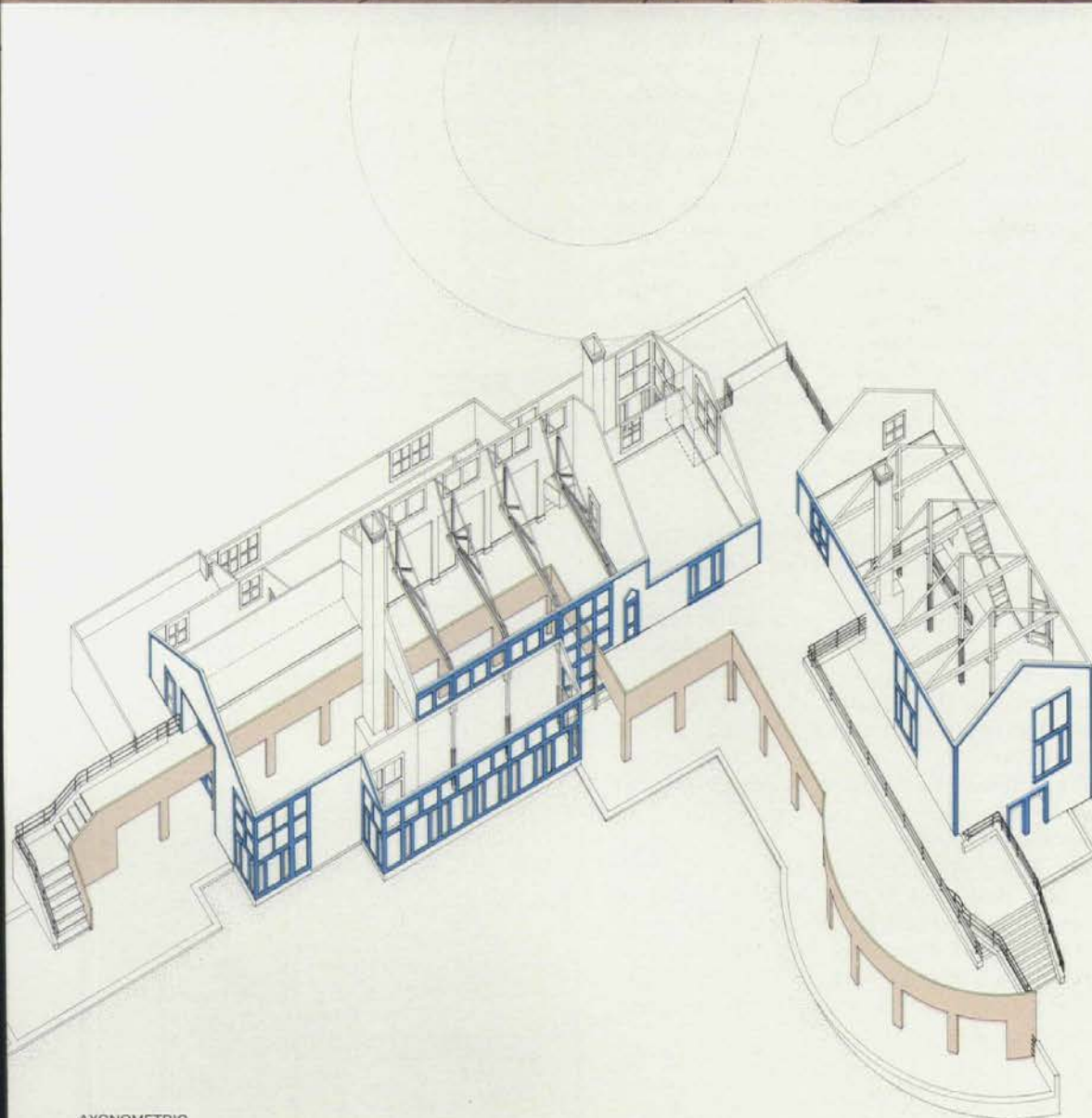
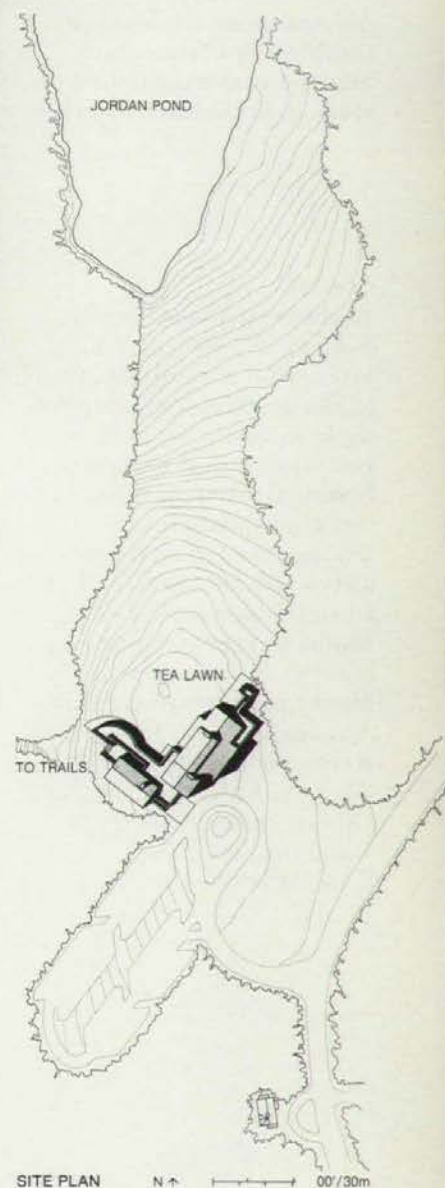
Hartman: It seems to have a character and simplicity appropriate to a visitor's center, relaxed and pleasant with a relationship to the terrain.

Giurgola: There are certain details that one may question, but there is a good sense of professionalism. On the other hand, it is not an extremely memorable experience.

Frasca: It's languid more than relaxed.

Stein: I think it does what it does in a competent manner. The whole quality in its site is a pleasant one.





AXONOMETRIC

James Stewart Polshek & Partners

An American diplomatic complex in France pays homage to distinguished periods in French architecture.

Credits

Architects: James Stewart Polshek & Partners, New York. Paul S. Byard, partner in charge; James Stewart Polshek, design partner; James Garrison, senior designer.

Consultants: Tor, Shapiro & Associates, structural; Thomas A. Polise, mechanical/electrical; Glitec, S.A., consulting engineer.

Modelmaker: D. Cutso-george.

Model photographer: Gil Amiaga.

Renderer & graphics: M. Baez, A. Kalla.

Client: Office of Foreign Buildings, U.S. Dept. of State, Washington, DC.

Project: U.S. Consular residence and office, Lyon, France.

Program: Publicly accessible consular office building of 11,400 sq ft and Consul General's 7600 sq-ft four-bedroom home.

Site: ½ acre on a boulevard in an urban residential neighborhood, with one edge across from a public park.

Solution: The complex combines references to both early masterpieces of French Modernism, including Maison Jaoul and Maison de Verre, and the florid style of the Belle Époque. Density of wall surfaces varies according to the level of privacy required within and the exterior surroundings. Walls are densest facing the street and adjacent to apartment buildings. Facing the park and the solariums of neighboring villas, the wall is faceted and glassy. Parking is concealed beneath the building.

Construction methods and materials: Cast concrete structure, precast concrete wall panels with glazed ceramic tile facing. Aluminum curtain wall with infill of clear glass, translucent glass, and insulated aluminum panels. Domestic hot water and space heating provided by solar panels with heat reclaim units in combination with gas/oil-fired boiler. South and east façades are clad in light-colored reflective glass.

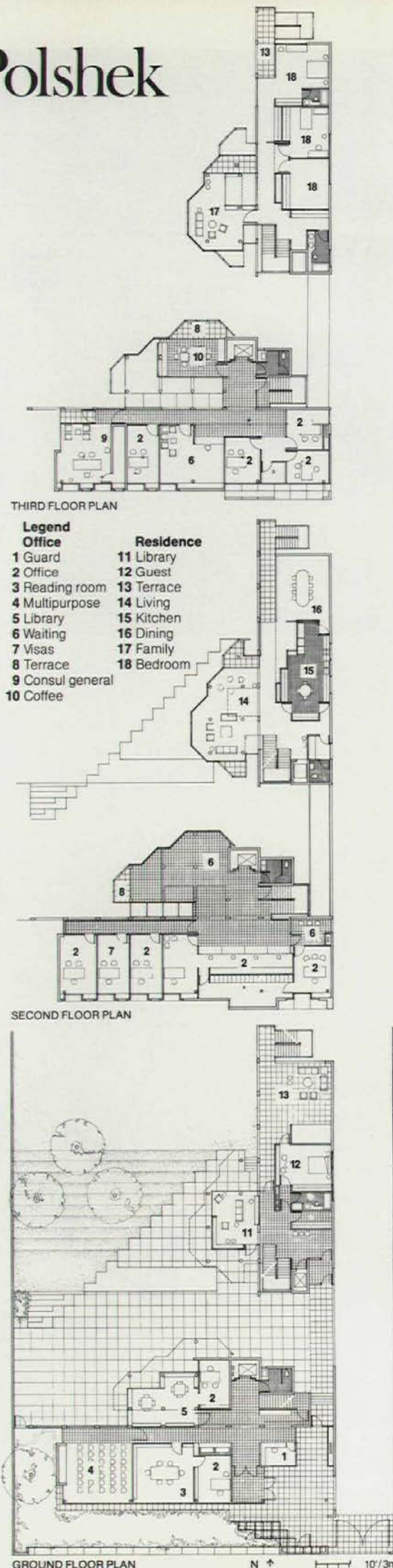
Jury comments

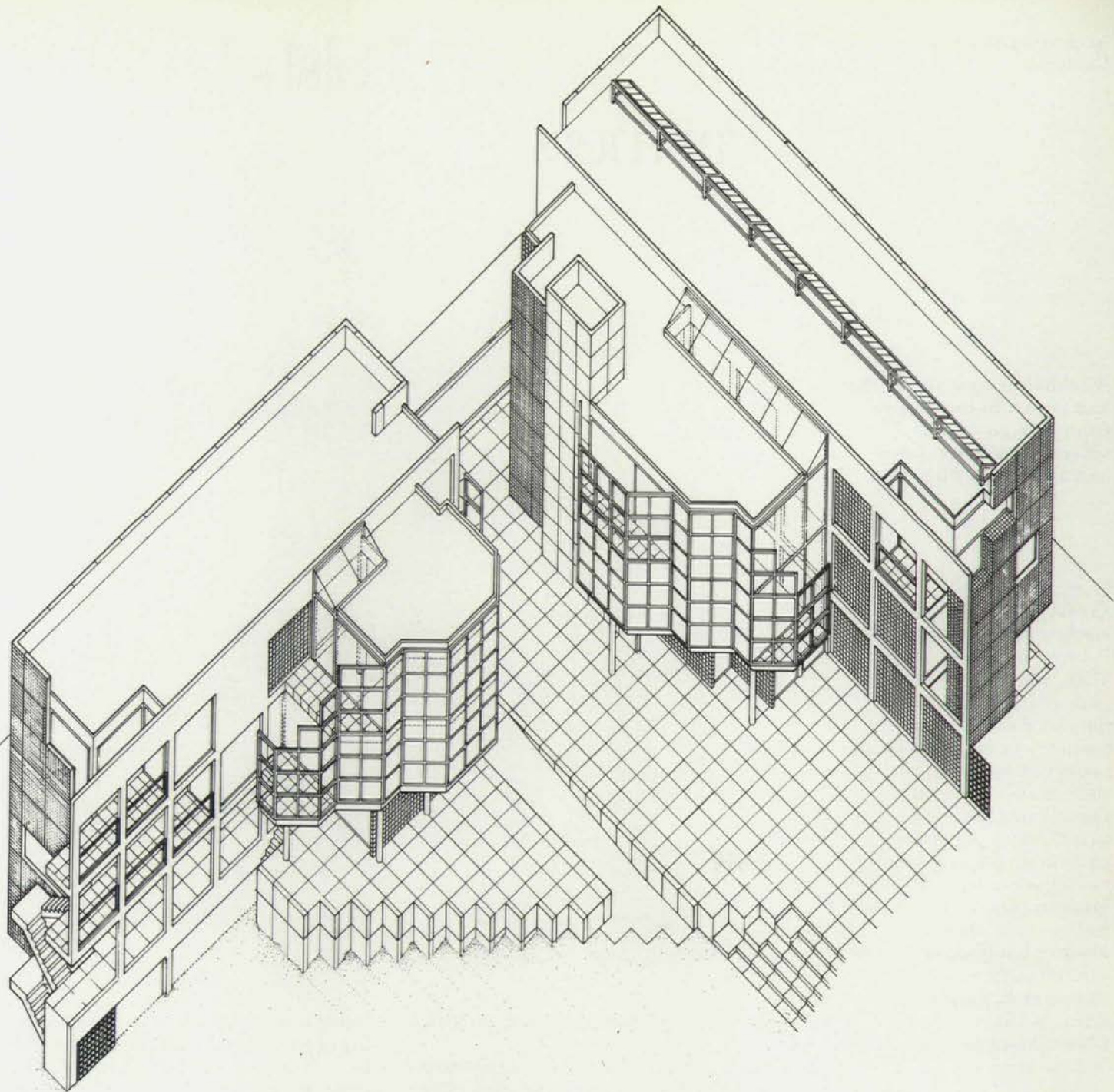
Frasca: It's got the hard outside that stresses the street and soft inside which makes some nice spaces.

Giurgola: It never gets to a bureaucratic scale, and it has a very precise discipline in plan, a good sequence of open space.

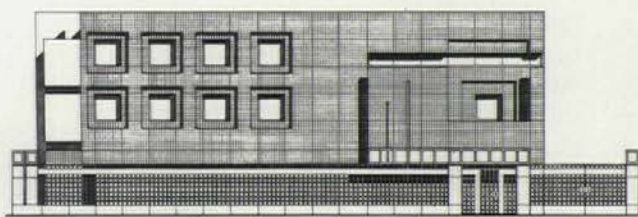
Hartman: On the negative side, it's very unlikely that this has anything to do with what's liable to be in Lyon. I also have reservations when a house and office building look so much alike. They are very, very similar in their aesthetic.

Stein: There are a couple of things that aren't handled that well in the building. One of them is the window treatment on the brick wall in the elevation. The other is the use of the wall as a screen beyond the face of the building, which seems to be an unnecessary and rather contrived gesture.

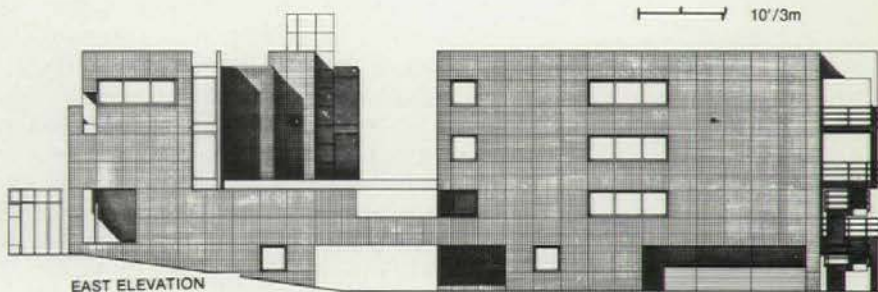




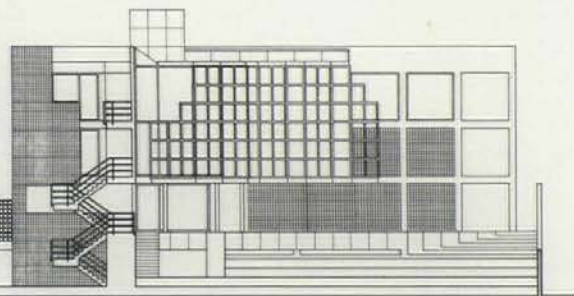
AXONOMETRIC



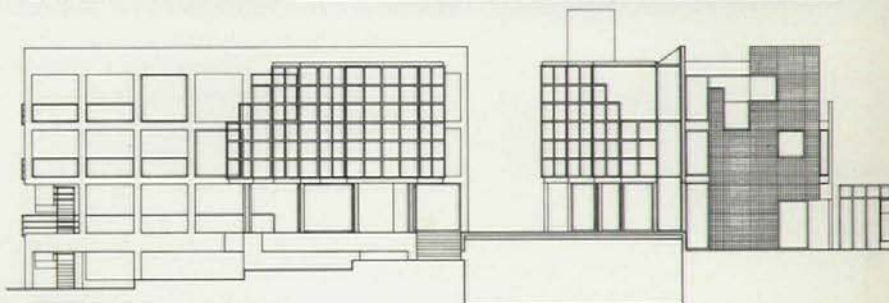
SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION

James Stewart Polshek & Partners

A school in New Jersey that had grown in increments from an eight-room schoolhouse is renovated and added to a fifth time.

Credits

Architects: James Stewart Polshek & Partners, New York. Joseph L. Fleischer, partner in charge; James Stewart Polshek, design partner; Timothy Hartung, project architect; James Garrison, senior designer.

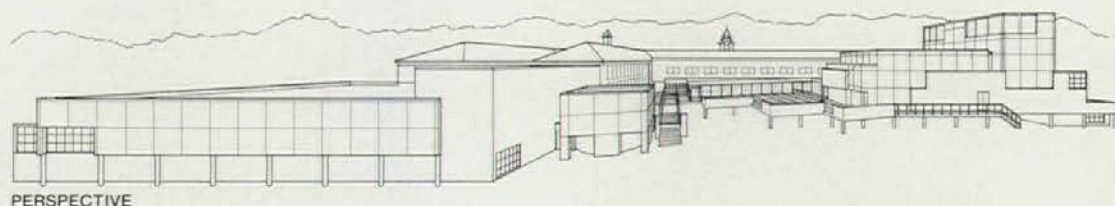
Consultants: Howard Greenspan & Associates, structural; Abrams & Moses, mechanical/electrical.

Modelmaker: D. Cut-sogearge, M. Baez.

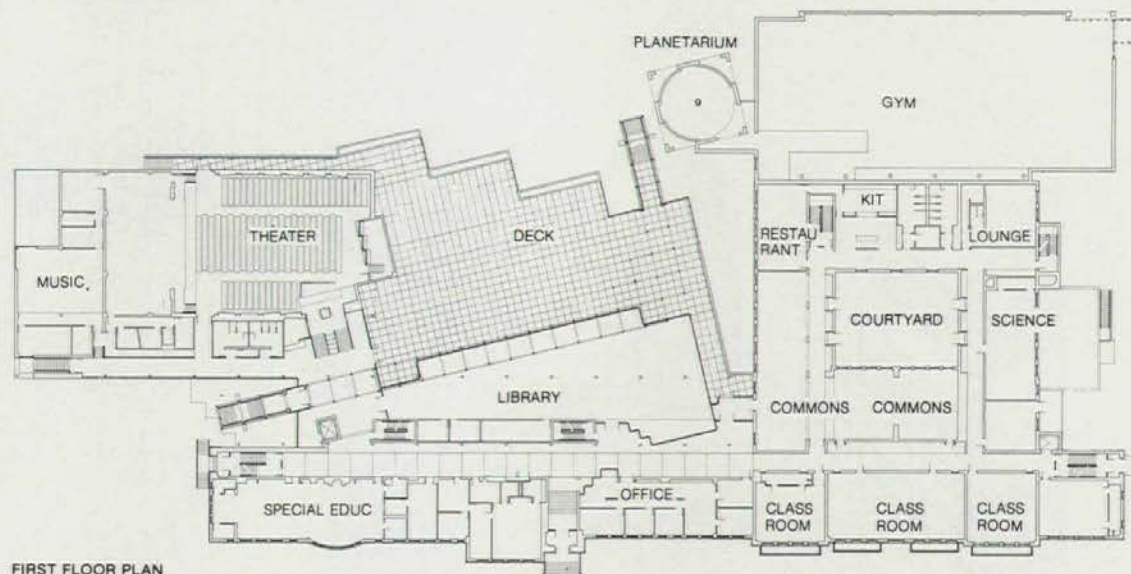
Model photographer: Louis Checkman.

Renderer & graphics: A. Kalla, M. Baez.

Client: Montclair (NJ) Board of Education.



PERSPECTIVE



FIRST FLOOR PLAN

Project: Glenfield Middle School, Montclair, NJ.

Program: Of the existing 124,000-sq-ft school, 35,000 sq ft are to be demolished, 80,000 sq ft are to be renovated, and 33,000 sq ft are to be added. New construction will provide a theater, gymnasium, library, day-care and commons area.

Site: 3.2 acres on a suburban residential street facing a public park to the southeast.

Solution: Existing façade facing the park is undisturbed. New construction occurs behind the school and frames a raised outdoor court. Staff cars are parked under its deck.

Construction methods and materials: Concrete slab and columns on the first floor with steel columns, beams, and longspan joists above. Facing materials are ground face concrete block and common brick.

Jury comments

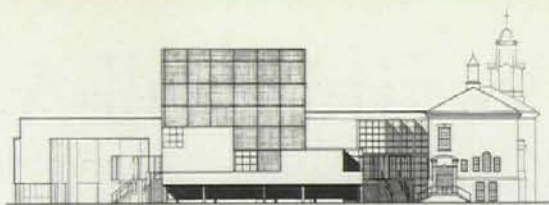
Hartman: It's a fairly complicated problem because the building has a bad existing condition that they've had to struggle with. The original building is not very good when you look at it.

Stein: It has difficult, unresolved joints.

Giurgola: The adjustment of a new thing to an old one is done with remarkable skill. He separates quite clearly the new event from the old one and uses the old one as a backdrop.

Frasca: The change in geometry creates some tension between the two kinds of architecture, which by nature have to be different.

Brownson: The proportions are very good on the panels on that one elevation.

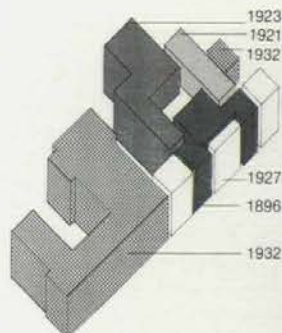


NORTHEAST ELEVATION

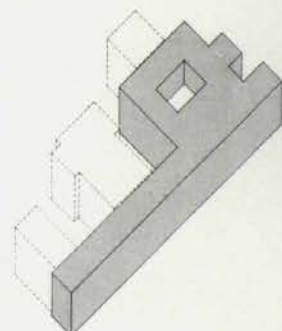


SOUTHEAST ELEVATION

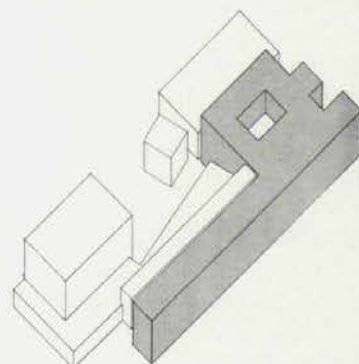
40/12m



EXISTING BUILDING DIAGRAM



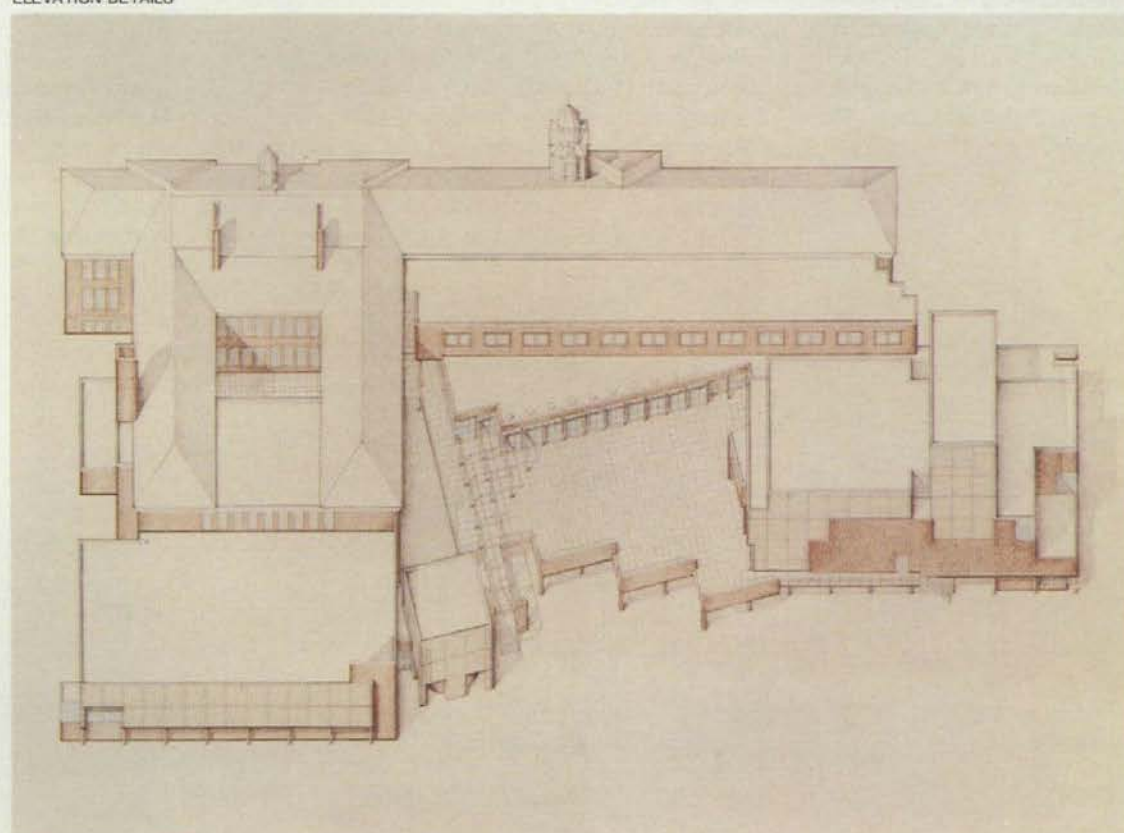
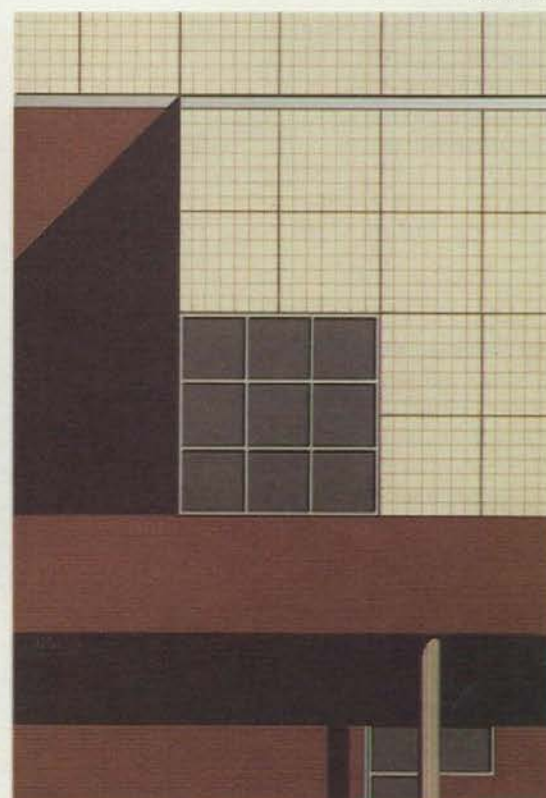
DEMOLITION DIAGRAM



ADDITION DIAGRAM



ELEVATION DETAILS



AXONOMETRIC

MLTW/Turnbull Associates

A highly eclectic condominium complex for a new ski area in Colorado is folded carefully into the mountainside.

Credits

Architects: MLTW/Turnbull Associates, San Francisco. Robert Simpson, principal in charge; William Turnbull Jr., designer; Jorg Weber, designer; Michael Hull, job captain; Margaret Simon, interiors.

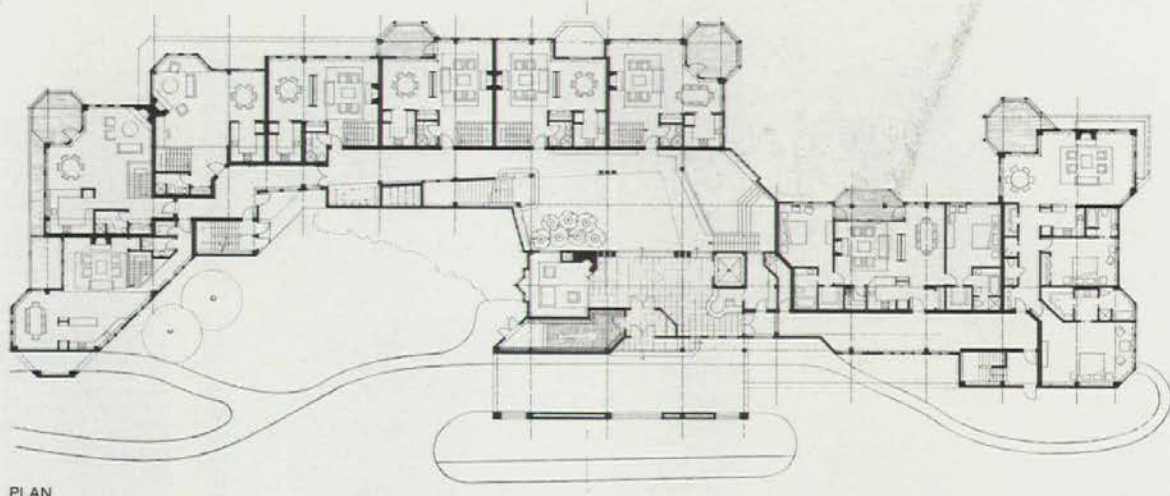
Consultants: Johnson-Voiland-Archuleta, structural; RMH Group, mechanical/electrical; Mighetto and Youngmeister, construction documents consultants; Petry-Vappi Construction, general contractor.

Modelmaker: Charles Leoni.

Model photographer: Jorg Weber.

Renderer: James Gillam.

Client: Inwood Corp., Redwood City, Ca.



Project: Centennial Condominiums, Vail, Co.

Program: First-phase development of a new ski area to the west of Vail. Twenty-nine two- and three-bedroom units (1400 sq ft to 2400 sq ft) in a seven-story complex with storage and parking for 30 cars in the lower levels; 79,100 sq ft total.

Site: Steeply sloping narrow finger of land $\frac{3}{4}$ acre) running north and south. Grouse Mountain is to the east; sweeping views of Beaver Creek Valley and the ridgeline beyond are to the west and southwest.

Solution: To reduce building mass, the lower three stories are below grade except at the downhill boundary (on west). Upper stories are tucked under a steeply pitched gable roof, which is canted to three stories above ground

on the south and five stories on the west. Main entrance is on uphill (east) side, through a porte-cochere that opens into a four-story skylit lobby. Bridges cross the lobby on upper levels.

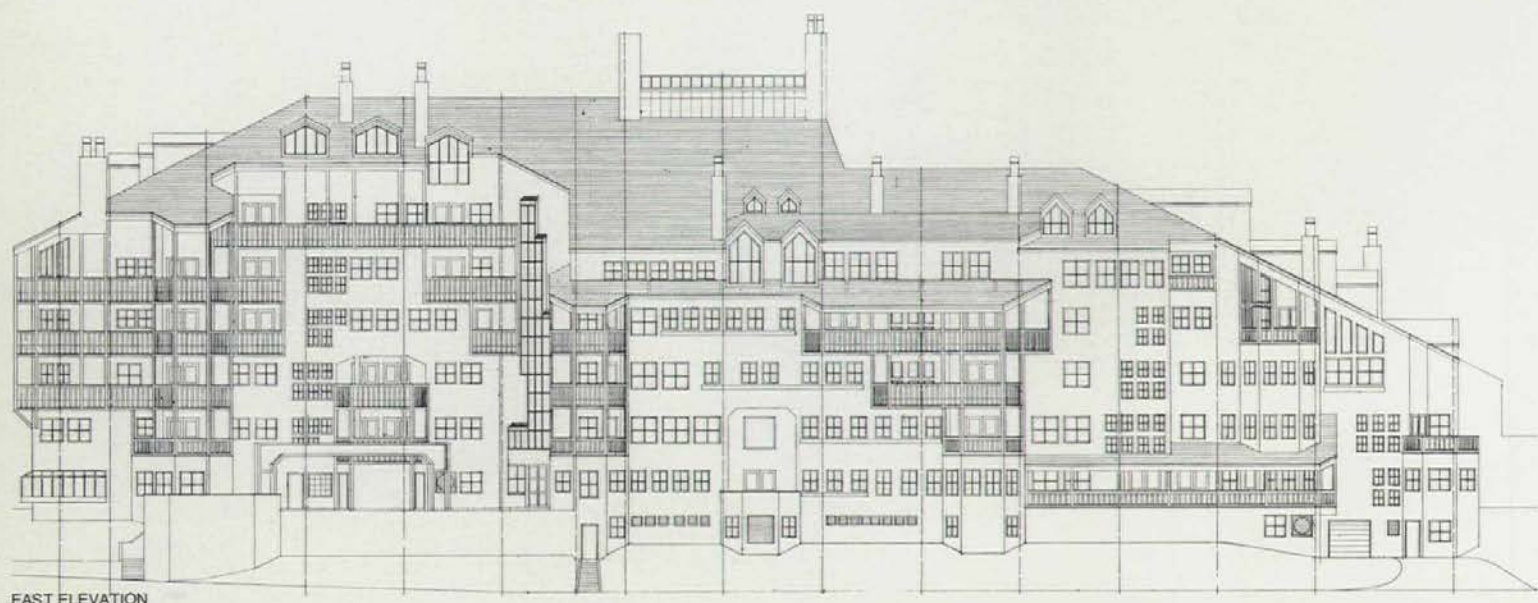
Construction methods and materials: Steel frame with steel joists, steel deck with concrete fill, concrete foundation and retaining walls. Stucco walls; glazed clay tile roof; cedar trim, railings, and decks.

Jury comments

Hartman: It looks very much like a grand resort hotel.

Frasca: It seems to be in the tradition of grand ski lodges, Timberline, the Coronado.

Hartman: The scale is reduced without going

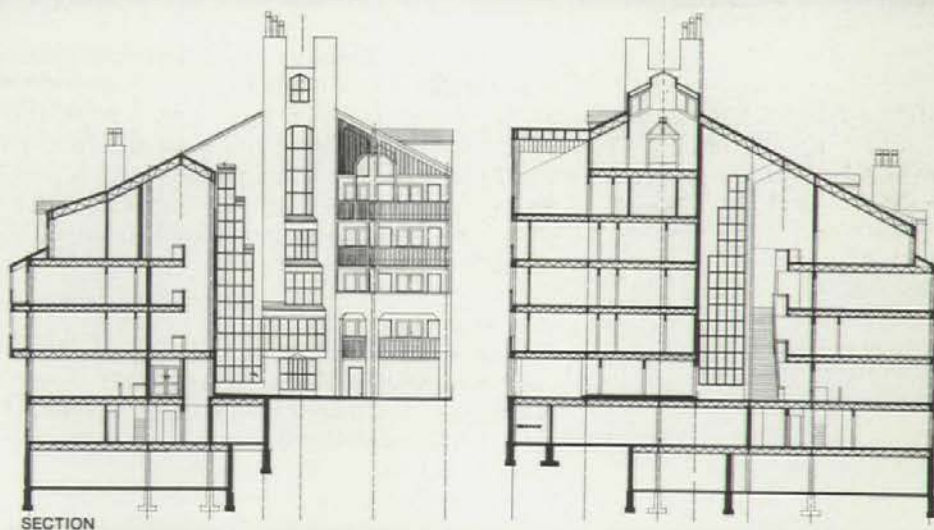




to the tortured fragmentation that other people had to do in order to break these large buildings down. It's picturesque architecture but it's very successful picturesque. It's both picturesque and good, something we've had trouble locating.

Stein: Another thing that's very good is that elements used to produce this rich and site-responsive building are basically very simple. There are a very few elements that are repeated in different combinations.

Giurgola: When you look at the plan, however, there are certain things that don't respond to what it really is, which is an articulated linear plan with a corridor on one side and an element on the other.



James B. Favaro Peter D. Lofgren

A house in the hills on the Oregon coast is designed as a progression of events leading to the ocean views.

Credits

Architects: James B. Favaro and Peter D. Lofgren, Boston. James B. Favaro, Peter D. Lofgren, designers.

Renderers: James B. Favaro, Peter D. Lofgren.

Clients: Mr. and Mrs. David E. Lofgren, Salishan Hills, Or.

Project: A house on the Oregon coast.

Program: A second home of 2100 sq ft, with two bedrooms, for a couple with a grown family.

Site: A steep, heavily wooded small lot in a subdivision two hours from Portland, Or, on the seacoast.

Solution: The simple, rectangular box has been designed with interior spaces arranged in an extended plan that reaches out over the hills and trees to the west to provide the best views for the living room, its deck, and the master bedroom below. The interior has been "carved" to leave behind a linear series of alternating spaces and masses that align on an expanding module down the center of the rectangle, so that progression from the entry to the west involves a spatial sequence that evolves from a condition of figural space to one of figural mass.

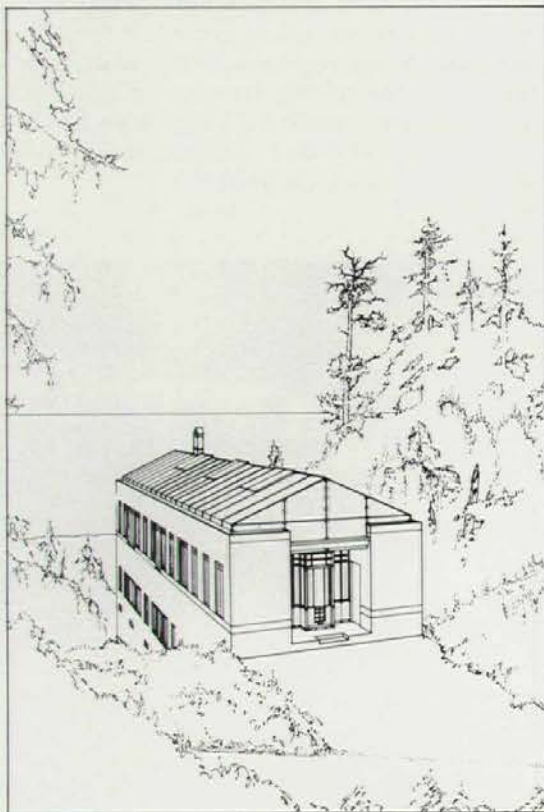
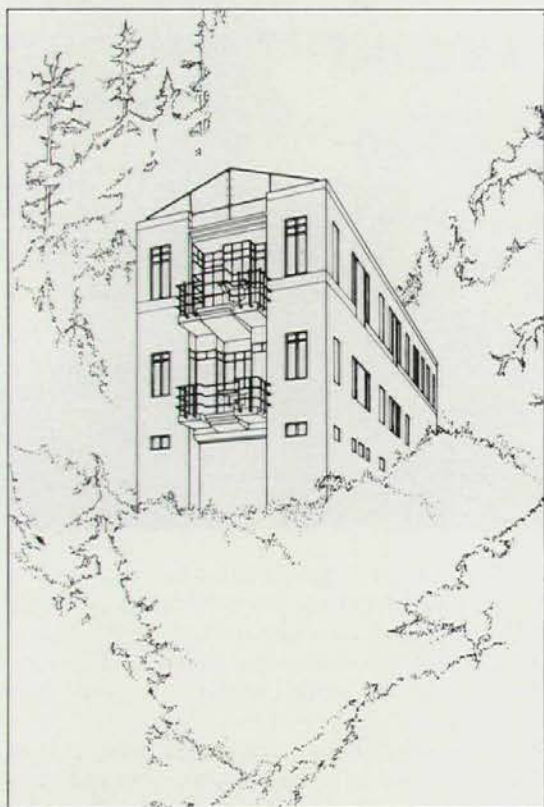
Construction methods and materials: The major part of the structure is of masonry bearing wall in two colors of concrete block. From three feet above the floor of the top level, the structure changes to simple wood frame construction clad with vertical cedar siding. The roof is of galvanized metal supported by a metal truss.

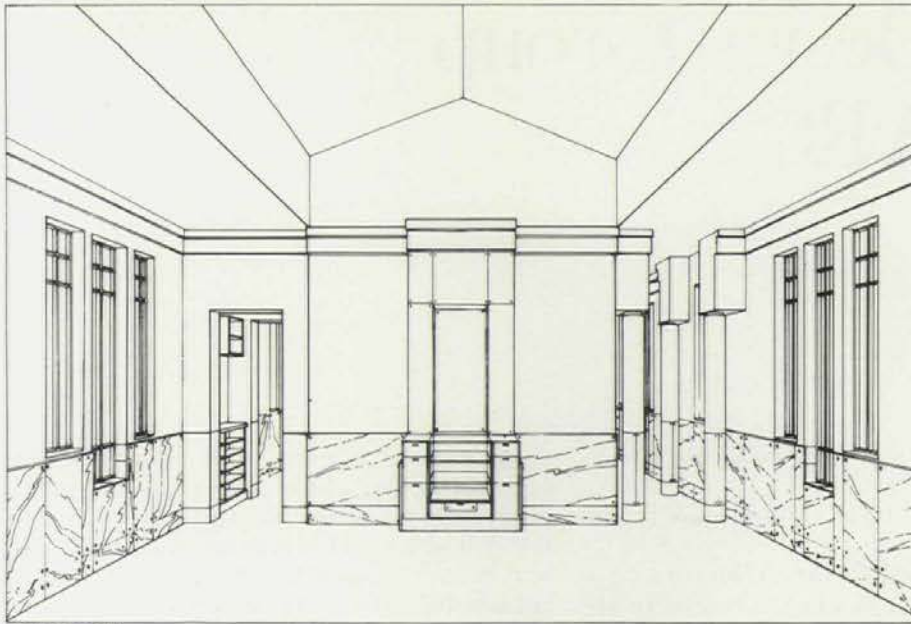
Jury comments

Frasca: This is a neat plan, a very precise little vacation house that is worked out pretty well.

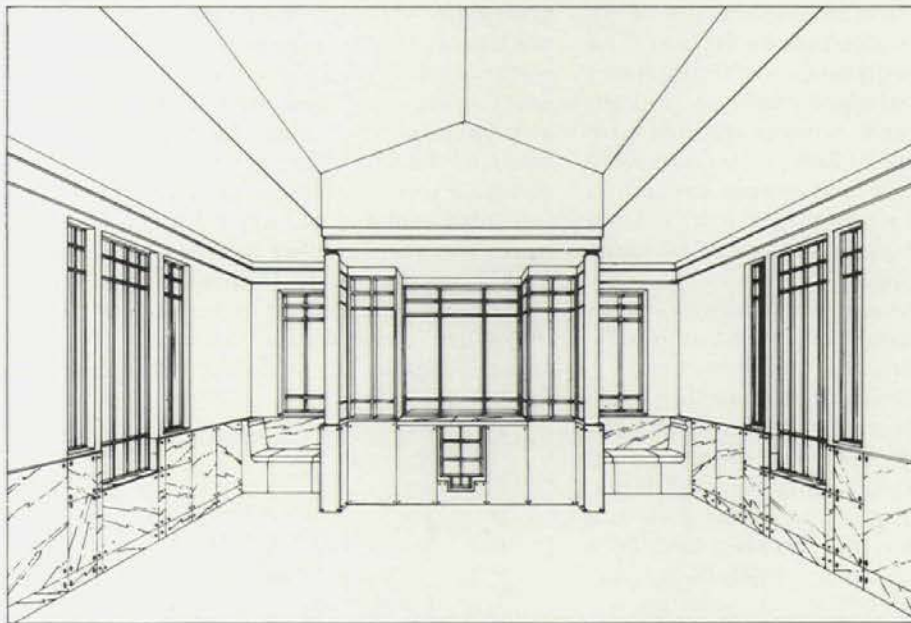
Hartman: It's a shame the two sides are identical on the two long sides; this is not necessary or implied by the plans.

Giurgola: It's Schinkel in Oregon. I like the quality of it, the pristine juxtaposition of the building in nature. I like this house, but I have some problem with the stairs. I have a question about the plan because mostly when a direction is established with such strength, somehow the movement should work with it. But here you're turned around, forced to change direction, every time you use the stairs. It has become too schematic, but it's still a remarkable and very elegant piece of architecture.

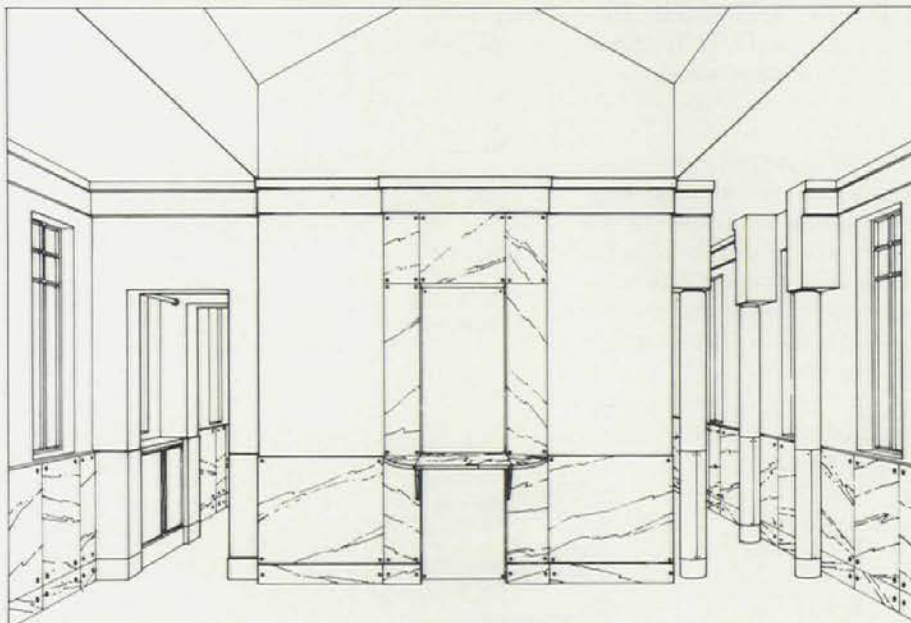




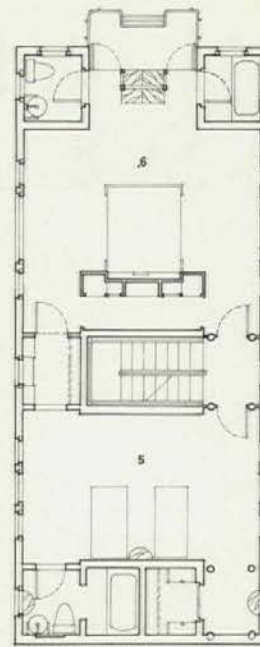
DINING ROOM



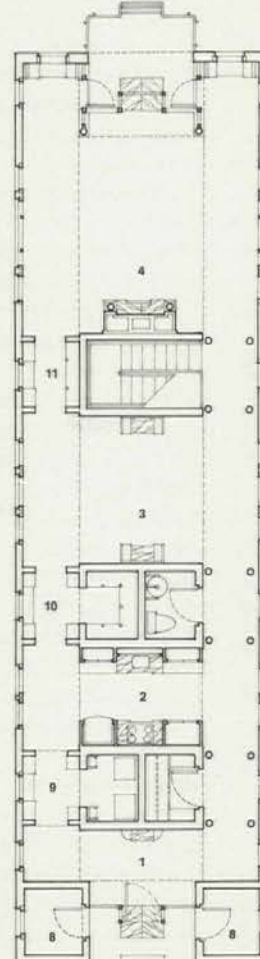
LIVING ROOM



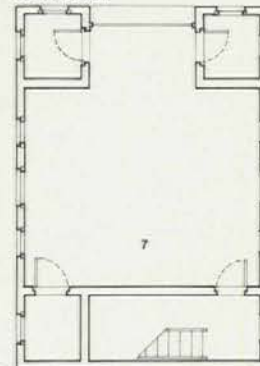
ENTRY



BEDROOM LEVEL



MAIN LEVEL



GARAGE LEVEL

Legend

- 1 Entry
- 2 Kitchen
- 3 Dining
- 4 Living
- 5 Bedroom
- 6 Master bedroom
- 7 Garage, mechanical, storage
- 8 Outdoor storage
- 9 Utility
- 10 Pantry
- 11 Library

ELS Design Group/ SOL-ARC

An energy-efficient office building relies on passive techniques of conservation to produce great energy and life-cycle savings.

Credits

Architects: ELS Design Group, San Francisco. Donn Logan, principal in charge; Frank H. Frost, project architect; Wayne Katsumata, Jose Vilar, Nicholas Phillips, Wendy Tsuji, designers. SOL-ARC, San Francisco. Philip Banta, Anthony Cutri, David Baker, architectural energy design.

Consultants: E.G. Hirsch & Associates, structural; Guttman-McRitchie, mechanical; Engineering Enterprise, electrical; Berkeley Solar Group, energy analysis; Fong/LaRocca, landscape.

Modelmaker: Haru Yamada/Environmental Art Shop.

Model photographer: Alan Ohashi.

Renderers: John Zissovici, Philip Banta.

Client: Barry Wasserman, State Architect, Sacramento, Ca.

Project: Energy Efficient State Office Building, San Jose, Ca.

Program: Energy-efficient office space for 22 separate state agencies.

Site: Amidst parking lots in urban core.

Solution: A courtyard scheme is used to respond to historical community precedents, and arcades are extended around the building perimeter for pedestrian protection. The checkerboard of courtyards inside organizes separate agencies around cubes of sunlight and landscaping, and rooftop terraces provide additional outdoor areas. A loop of open corridors allows clear and simple circulation for the three-story structure, which has been designed so that interior spaces can be easily divided and rearranged.

The prime strategy for saving energy (which computer simulation ranks at 70 percent over conventional construction) is through reducing cooling and lighting loads by architectural means. Daylighting integration is increased because of courtyard geometry and rooftop monitors. In addition, selective sun shading reduces heat gain and chiller tonnage, and the rockbed and concrete structural mass act as thermal sponge. Stored daytime heat is flushed out at night.

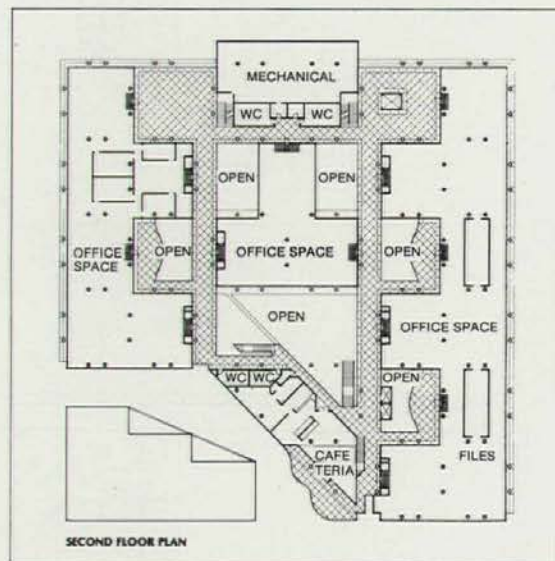
Construction methods and materials: In cast-in-place concrete structure, seismic fortress concept reflects earthquake code; floor slabs contain majority of thermal mass.

Jury comments

Stein: Anytime there's a major effort to house governmental bureaucrats in a way that humanizes their setting, that makes them responsive to where they are, it deserves to be recognized. In this case the attempt has been carried through very successfully except on the street façades where it's a little forbid-

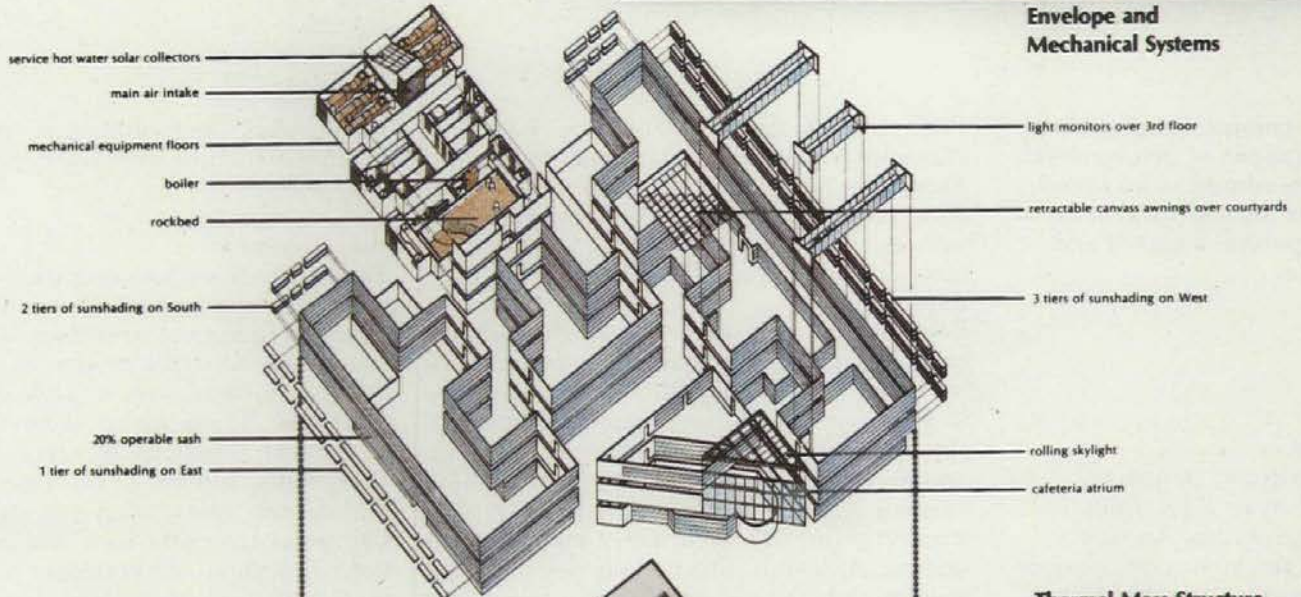
ding. But the interior is an enormous step forward in the whole conception of what a governmental office building should be. In the skill with which it is done, in its amenities, and in its responsiveness to energy and to the climate for which it is designed, it is a really important building.

Giurgola: Although the courtyard solution is not unusual to the region, to have extended it to the point of making a really very workable space within, and close to available daylight, is a very important step. Having opened so much of the workspace to the outside is something we too often forget as architects, but it's one of the major preoccupations we should have. We take the office floor for granted, but here's an attempt to humanize it. There is some question about the elevation, but I think there are some control elements that will somehow make the surface much softer.

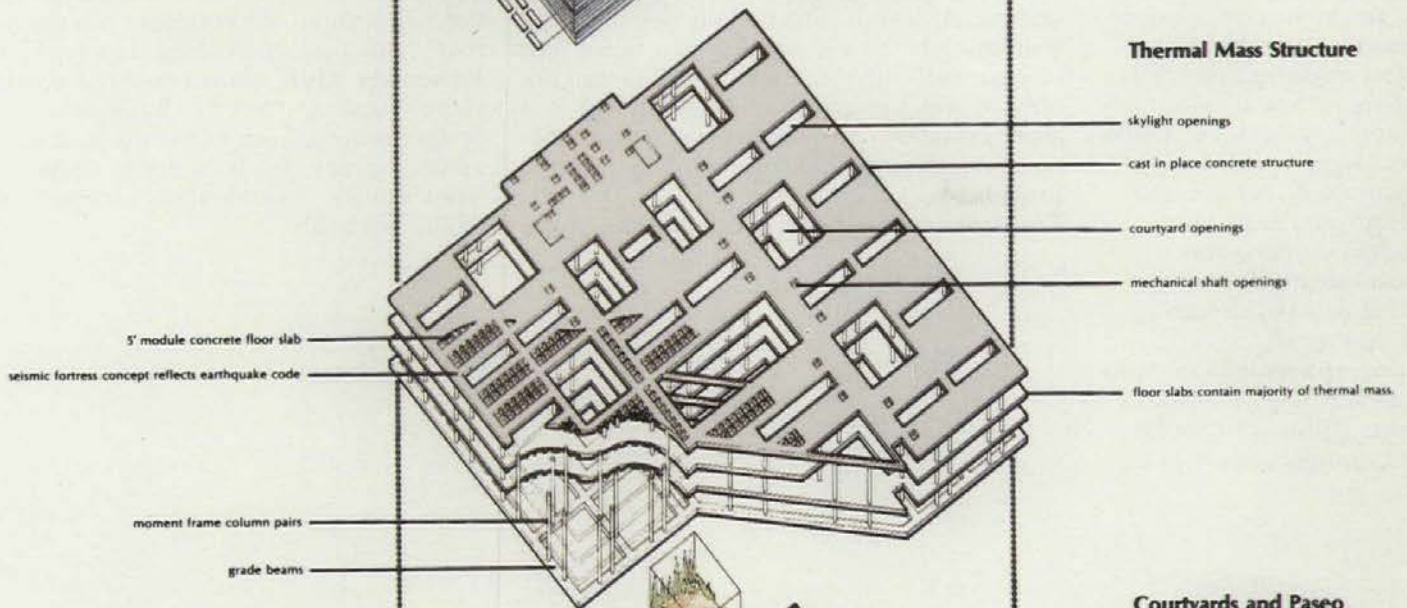




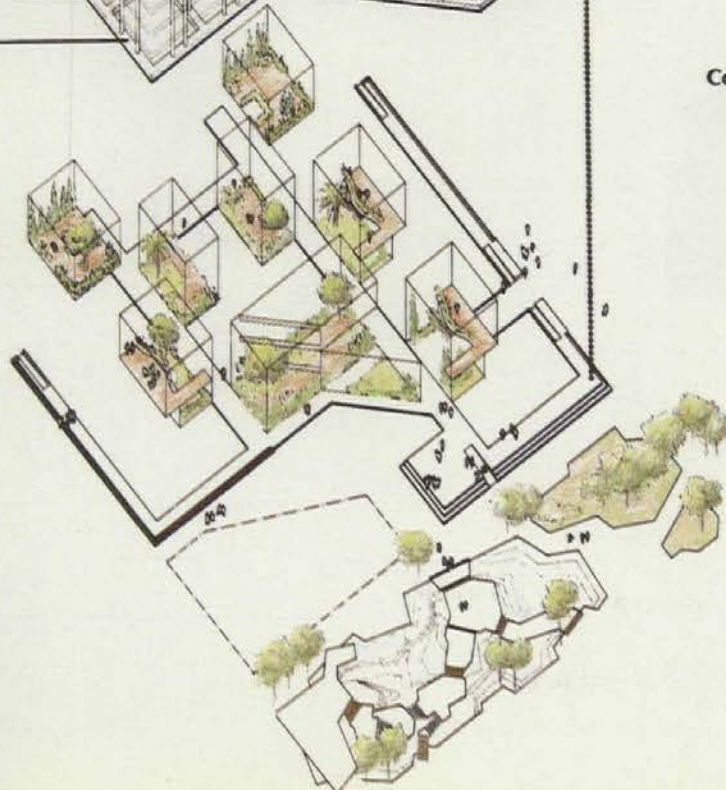
Envelope and Mechanical Systems



Thermal Mass Structure



Courtyards and Paseo



Dewberry, Nealon & Davis Joseph Boggs/Studio

The complex engineering operations of grit removal are rendered in an identifiable architectural scale for the public, with wit and grace.

Credits

Architects: Dewberry, Nealon & Davis, Joseph Boggs/Studio, Annapolis, Md, Jerry Harpole, project designer; Bernard Hyatt, project engineer; Henry L. Berben, technical coordinator; Anthony DiCamillo, Dave Haresign, Don Lipscomb, Richard Rosen, Robert Moreland, John Haselby, studio team.

Consultants: Dewberry, Nealon & Davis, structural, civil, electrical.

Photographer: William Mills.

Renderer: Jerry Harpole.

Client: Baltimore City Department of Public Works, Md.



Project: Grit Removal Facilities, Backriver Wastewater Treatment Plant, Baltimore, Md.

Program: Four new collection-point buildings and their siting were planned, along with the addition of a fourth grit-removal tank, and upgrading of the existing grit handling facilities.

Solution: A conveyor belt type of materials-handling installation, having limited flexibility, is converted to individual collection points in a manner that allows complete units to be closed down for maintenance or repair. The architectural integrity of the surrounding existing structures is continued in the new structures through their use of materials and design. Although functionally separated, a wall joins the new structures in a linear axis that parallels the grit chambers. The wall not only unifies the grit-removal units, but it is also designed to shield some movable mechanical apparatus used in the removal process.

Construction methods and materials: Split-

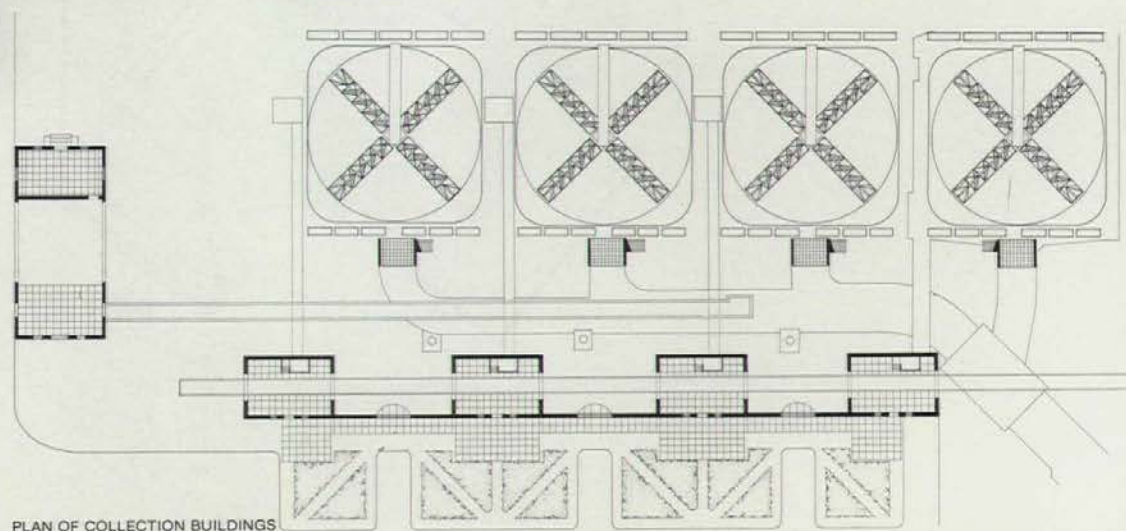
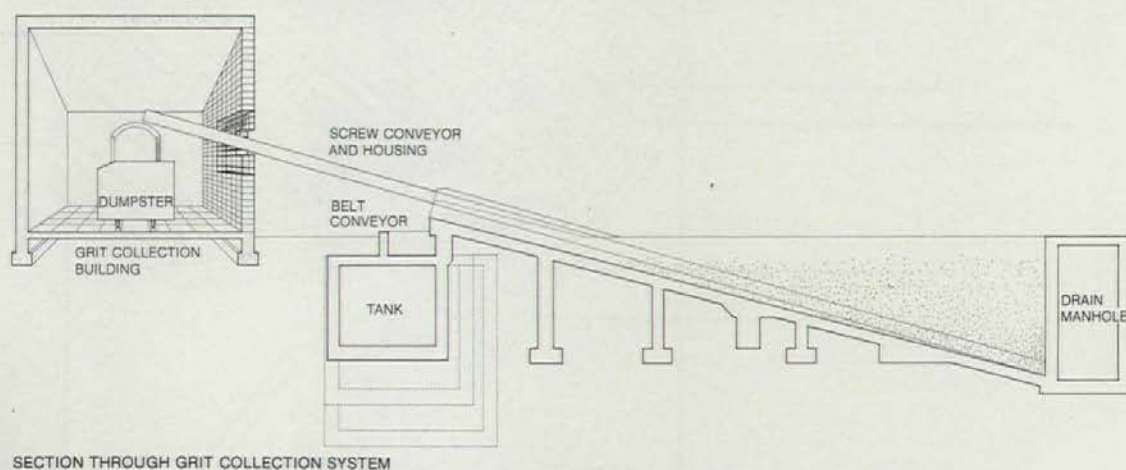
faced block and stucco veneer on load-bearing structure with wood roofing clad in tile.

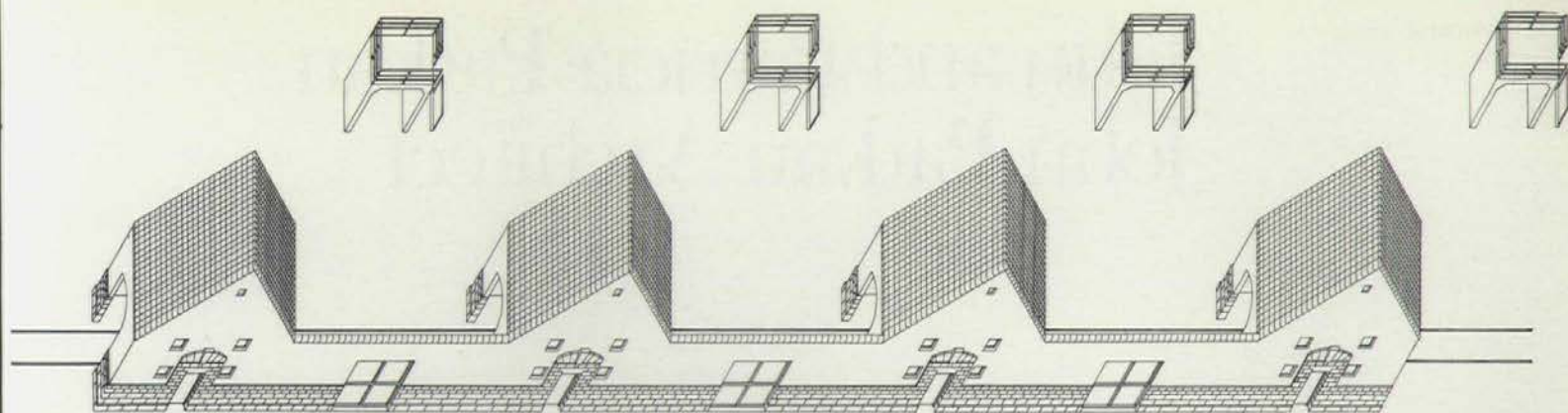
Jury comments

Frasca: It's a sincere attempt to try to make architecture out of otherwise relatively uninteresting industrial structures. The wall gives some pretense to the project, but in this case a little bit of pretension is not bad.

Hartman: There is an economy of means along with allusions to certain well-known precedents, and out of this comes something that is really quite lovely.

Giurgola: He could have had just the same, though, without the keystone; you don't need that . . . all these archeological sorts of postage stamps are really not necessary. I always like these (existing types of) buildings, and this project reflects some of the precedents of the existing structures. It's a poetic image . . . the latest Boullée. I think many architects would like to have this.





John and Patricia Patkau John Patkau Architect

In Canada's most northerly major city, housing units are built around a wintergarden

Credits

Architects: John and Patricia Patkau, John Patkau Architect Ltd., Edmonton, Alberta, Canada. John Patkau, Patricia Patkau, Tom Van Driel, project team.

Consultants: MB Engineering Ltd., structural; Vinto Engineering Ltd., mechanical; Allsopp Morgan Engineering Ltd., electrical; MTB Consultants Ltd., landscape; Rolf Jensen & Associates, fire protection; Allan James Creative Services Ltd., specifications.

Modelmaker: Professional Scale Modelbuilding Co. Ltd.

Model photographer: James A. Dow.

Renderer: John Patkau Architect Ltd.

Client: E.S.I. Holdings Ltd., Edmonton, Alberta.

Project: Residential Condominium, Edmonton, Alberta, Canada.

Program: Design a high-density low-rise residential component for an aborted highrise condominium project for which the 2½-story parking garage had already been constructed.

Site: A quarter block in one of the city's oldest inner-city neighborhoods.

Solution: Because the location of this project experiences long periods of -40 F temperature in the winter, the idea of the wintergarden became very important. The project goes further, however, in providing private garden or terrace space both on the exterior and within the interior atrium. The units are organized on two levels so that one atrium orientation could be for circulation and the other for private terraces. To maintain the existing neighborhood scale, the building was organized with four stories on the street side (with the uppermost held back to form an outdoor terrace) and six stories toward the rear.

Construction methods and materials: Reinforced concrete shearwalls and floorslabs with brick cladding, and glass roof on steel frame over atrium on the exterior. Exposed concrete frame, brick cladding to main floor walls, plaster walls above, and steel frame glazing in the atrium.

Jury comments

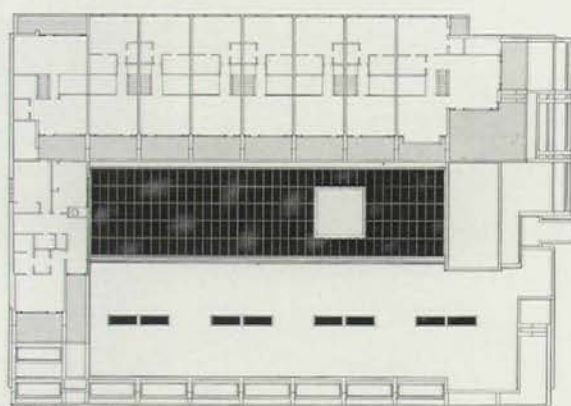
Bacon: Is it really an advantage to have the court? Who's going to use it... will people be out there?

Stein: The University at Edmonton has that as the fundamental organizing principle, and a friend of mine who is a professor there says it's an extremely successful method for building in that climate, and it permits people to meet outside of their own apartments.

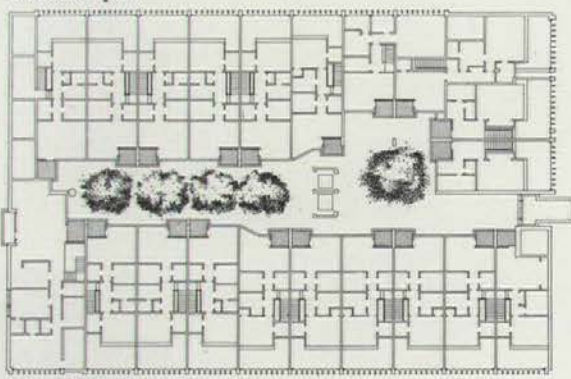
Giurgola: What it does is always to produce this enclave that you go in, and the sidewalk is dead because every morning everybody goes inside that court.

Cranz: Their argument is that the winter is so severe you're not going to be outside in the public scene anyway, so this is a way to "neighbor" in the bitter cold.

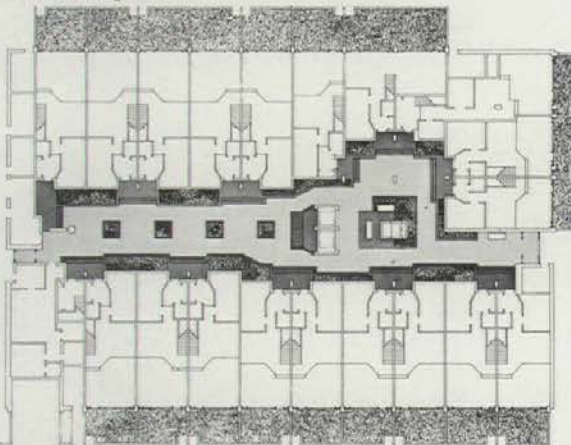
Stein: This project has developed a sense of building out of the building itself and not out of other "references" or "energy," and that's unusual. The quality of the building is very thoughtfully put together; it really looks as though somebody cared about how a building was built. What I like about it is that it's done by somebody who has a serious commitment



Sixth floor plan



Second floor plan



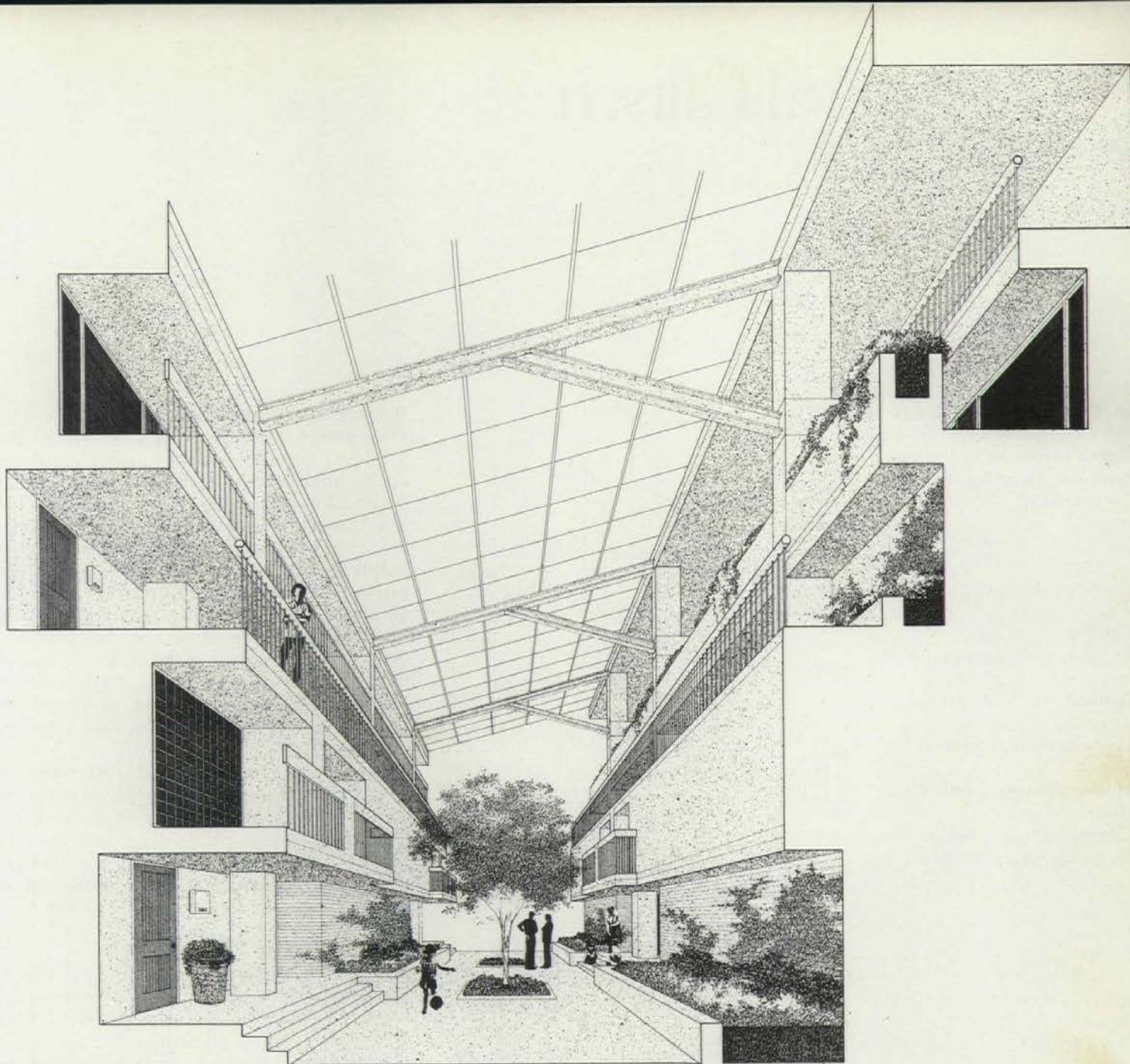
Ground floor plan

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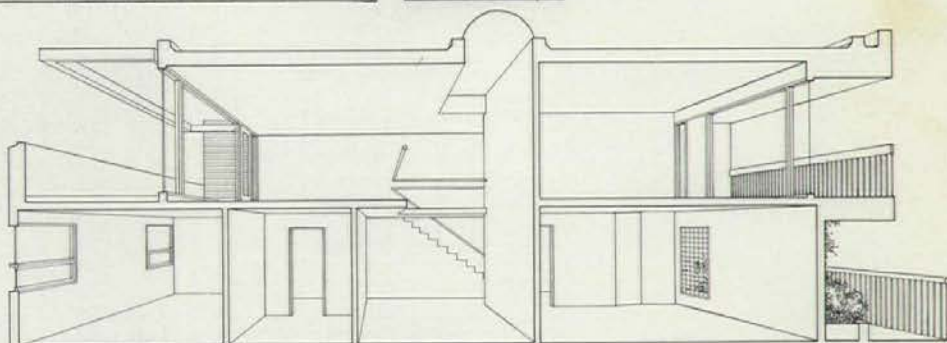
to produce an architecture that's not concerned with making clever statements. The designers think that the housing of people in a demanding climate merits a very serious architectural statement, and I think it has achieved that.

Giurgola: The intrusion on the side wall worries me.

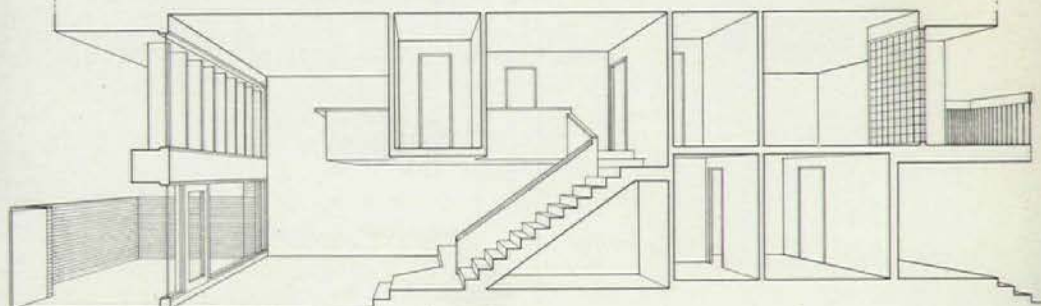
Cranz: Clare Cooper would argue that that kind of definition for those people allows them to use that outdoor space; without that little wall they would never be able to, psychologically.



Partial perspective of atrium



Typical upper floor unit



Typical ground floor unit

Val Glitsch

In Texas, a house for a retired couple is appreciated for its response to the surroundings and for its lack of "acrobatics."

Credits

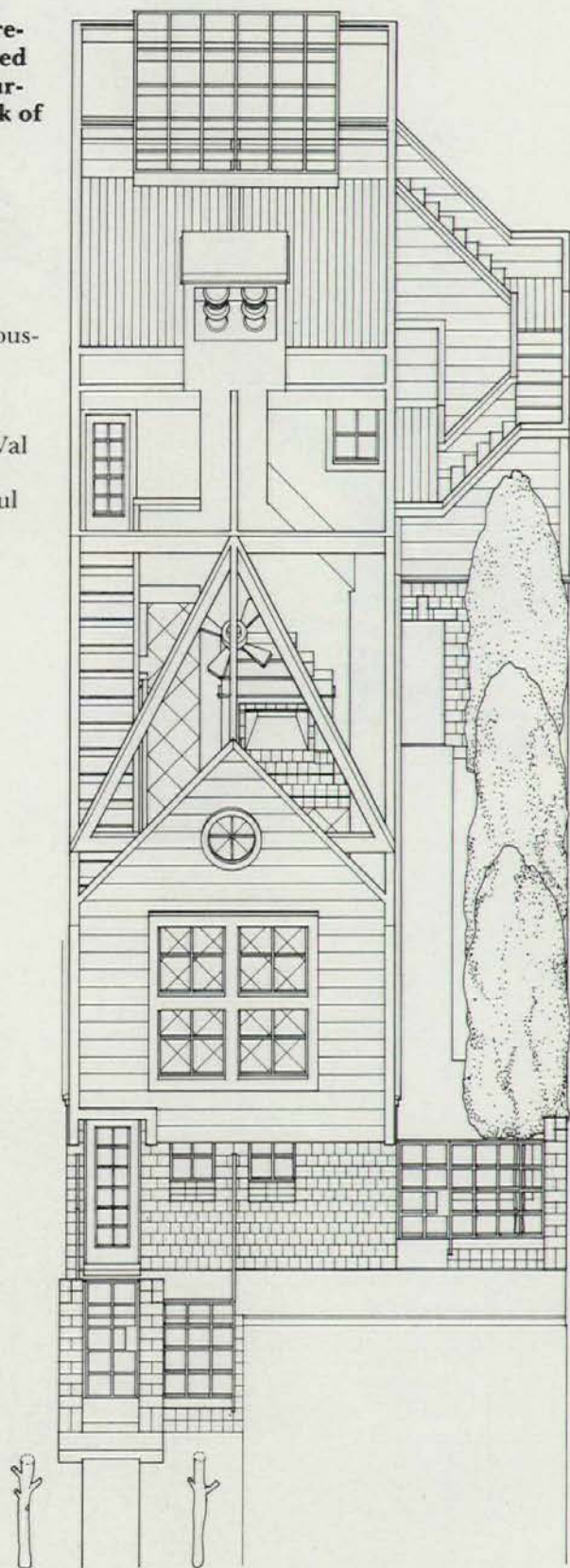
Architect: Val Glitsch, Houston, Tx.

Consultant: Peter Speth, structural.

Modelmaker, renderer: Val Glitsch.

Model photographer: Paul Hester.

Client: Sam and Marie McAshan, Houston, Tx.



Project: McAshan House, Houston, Tx.

Program: A townhouse, for a retired couple, including typical functions but with emphasis on the public nature of entertainment spaces, designed to project an image of security.

Site: 30' x 50' subdivided lot in residential area in process of becoming commercial.

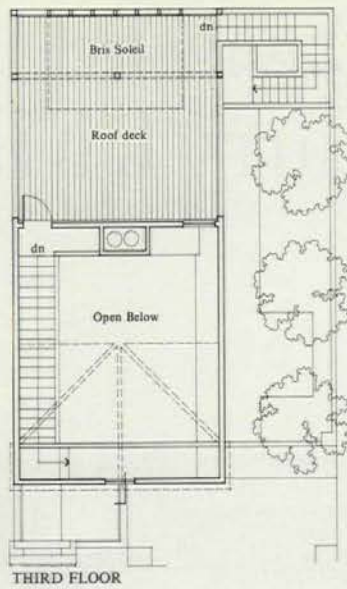
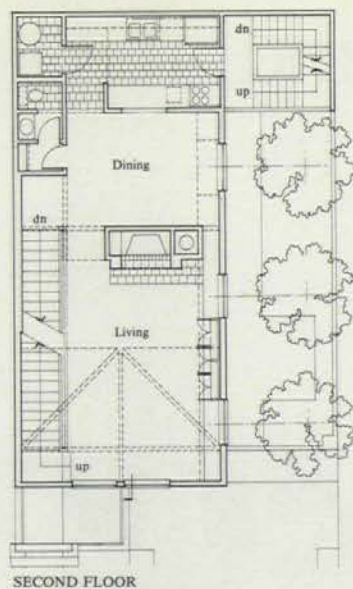
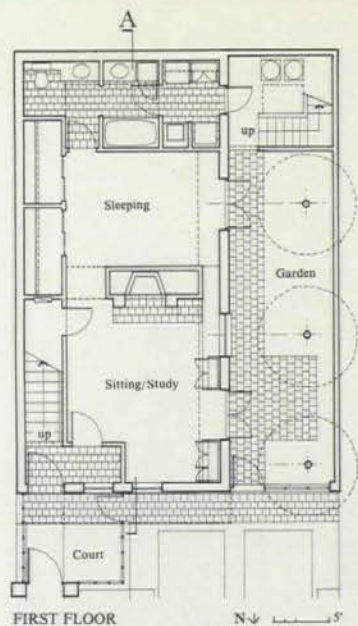
Solution: The house is zoned vertically from private to public, with major living spaces beginning on the second level. Externally, this is expressed by a change in materials and texture and by the open vs the closed nature of the window treatment. Inside, the layering is extended horizontally in plan, moving from public spaces at the front to private spaces at the rear.

Construction methods and materials: A load-bearing concrete masonry base supports 2" x 6" wood framing. Exterior cladding on the upper level is pine siding; interior surfaces are painted gypsum board. Foil-clad polystyrene sheets give added insulation to roof and walls in the hot, humid climate.

Jury comments

Frasca: This has a nice plan, and the house fits very comfortably into its environment, yet it is still a nice, even special, place to live. It is done very artfully and without pretension. It should be recognized because it really demonstrates that you don't have to do acrobatics to solve this kind of problem.

Hartman: I wish more work were done as well in response to what they had as this one. Everyone else is trying too hard and losing track of what they were trying to do, which even if they succeeded probably would be horrible. But this house is very nice. It's the right thing done sensibly, appropriately, and sensitively.



David P. Handlin Larry I. Mitnick

New housing at Harvard University takes clues from its surroundings and makes interesting new spaces.

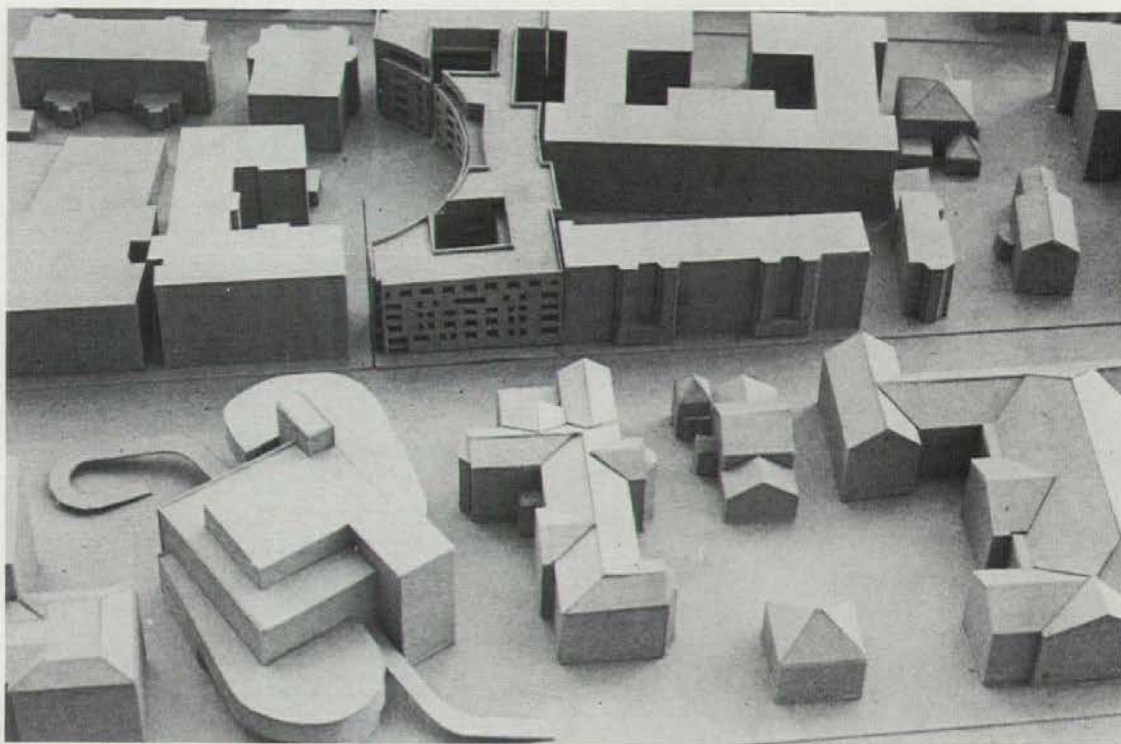
Credits

Architects: David P. Handlin and Larry I. Mitnick, Lexington, Ma.

Consultant: Daniel Schodek, structural.

Modelmakers: Jo Landefeld, Rayford Law, Ted Szostkowski.

Client: Harvard Real Estate (Harvard University), Cambridge, Ma.

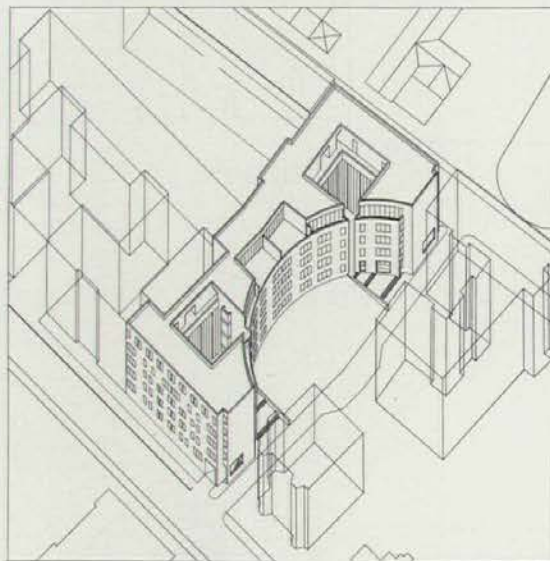


Project: Harvard Faculty Housing, Cambridge, Ma.

Program: 47 apartment units that range from 575-sq-ft studio units to 2000-sq-ft four-bedroom duplexes, to be sold as condominiums by the client, who retains right of first refusal to repurchase. The units will be first offered to university faculty, both current and emeritus.

Site: The site was chosen for its proximity to university facilities, but it is largely inhabited by a transient population that poses problems of noise and security, especially for older people. Because of the pattern of ownership of adjacent properties, this site of four individual house lots could be considered one lot, and therefore side and back setback requirements would not apply, and it would be possible to build to the edge of the new, large lot.

Solution: The intent of the project was to create an enclave away from the street, because of noise and security. Because zoning would allow it, the project has been treated as a continuous pattern of building and spaces rather than treating each site as an isolated entity with a detached building toward its center. The building is not entered from the



AXONOMETRIC

100' / 30m

sidewalk, but through a sequence of spaces on the interior, as is customary in many of the apartment buildings in the area. Inside each apartment, the intent was to create rooms and spaces that were efficient but that also had some of the best features of turn-of-the-century apartments. Consequently, most units have definite entry halls, wide corridors to be lined with bookcases, large storage units, and long, uninterrupted walls.

Construction and materials: Steel frame; façade of red brick and vertical window typical of adjacent buildings.

Jury comments

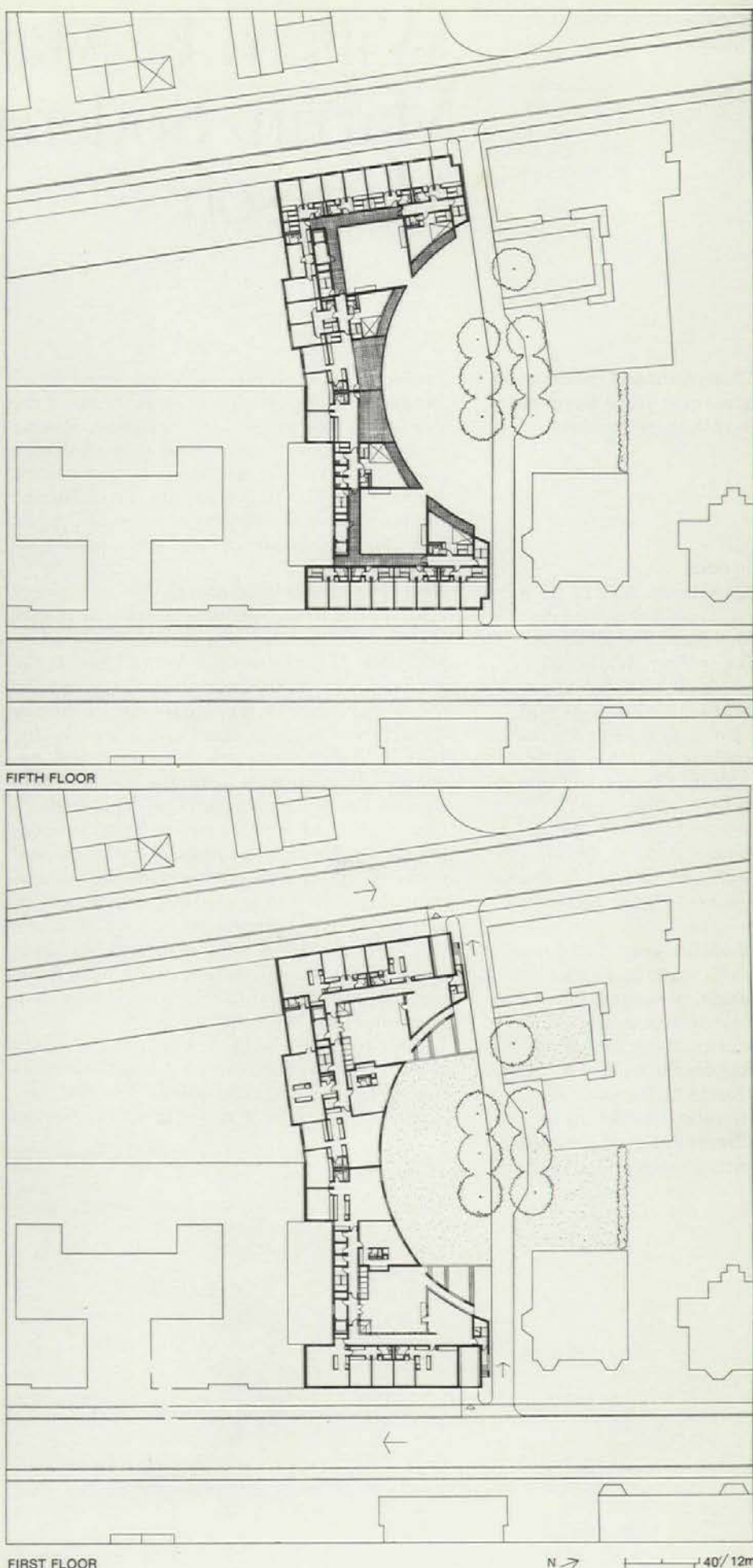
Hartman: I think the reason this appeals is because it is a very exceptional piece of infill, in that it adjusts itself to maintain the surroundings while at the same time keeping the street lines and finishing the spaces started by the existing buildings. In addition, it then makes its own space inside to give light to the circulation while screening it from the more public spaces outside. The project continues to set up major, most dramatic approaches to Le Corbusier's Carpenter Center, so that when you come upon it, the Center sits in the resulting space somewhat in the way the Tempietto sits in its cloister. The housing begins to complete the space for the center, which doesn't seem at all inappropriate.

Giurgola: We could discuss the value of having the open space in front of the Center, but then we must also evaluate the fact that you will have this sort of surprise; the Center remains quite open as a space. In other words, the loss of open space is minimal in this kind of gesture, if you have to have construction.

Stein: It's a wonderful statement in its site planning; it shows great sensitivity to the use of the space. But if you look at the elevations and plans, neither is distinguished. The elevation shows a very mediocre brick building, and the relationship to the buildings at both sides is quite poor. The interior spaces resulting from that generous curve in the plan are not good spaces, and the amount of space given to circulation to get past those interior wells is not really well planned.

Giurgola: On the other hand, that mediocrity may also be taken as a sort of understatement in terms of building; in other words, the architects keep going with the kind of language they have around; they leave this sense of open space and also present an alternative to Carpenter Center . . . this could have brought forth the old solutions.

Frasca: It's one of the few projects that has some presence to it. It's got a hierarchy of spaces; it's got big and little spaces that are not unlike those in the other apartment houses that fill the area around it. But this does a better job because it puts the corridor on the side where it doesn't invade privacy and looks out to the street. The architects were very careful about getting views, and things of that nature are very commendable. It also makes a special space for the urban landscape; it's a great space to walk through with its hierarchy of spaces. It doesn't have people looking out across small courtyards at each other, but on the other hand it maintains the local scale. It's a splendid, really low-key little infill project.



Willard K. Martin Martin/Soderstrom/ Matteson

Classicism and modern urbanism achieve a symmetry in this open-air plaza.

Credits

Architects: Willard K. Martin, Martin/Soderstrom/Matteson, Portland, Or. Doug Macy, Walker Macy Mitchelltree & Erickson, landscape architects and planners; Robert Reynolds, graphic artist; Lee Kelly, sculptor; Terence O'Donnell, historian; Spencer Gill, writer; Willard K. Martin, principal in charge, director of design; Marcus C. Bevans, senior designer and project architect.

Modelmakers: Ted Lundin, Gary Douglas, Larry Ferar.

Model photographer: Jim Crisman, G. Bruce Forster, Martin/Soderstrom/Matteson.

Renderer: Willard K. Martin, Marcus C. Bevans, Gary Douglas, Paul Franks.

Client: Portland Development Commission, Portland, Or.

Project: Pioneer Courthouse Square.

Program: The public plaza in the heart of the city is to be designed for a walkway, waiting area for public transportation, and haven from the activity of the business community. It could offer as well an arena for public exhibitions, a small theater, a place for public address, a bandstand, a café, and a small conservatory.

Site: One square block facing the old Pioneer Courthouse in the business district, Portland, Or.

Solution: The architects selected brick as the surface, a material they could carry beyond the actual limits of the square. In extending its surface into traffic lanes and sidewalks, the square likewise extends its refuge and becomes less exclusive. Columns on the south side of the square support colored awnings that shield waiting transit passengers from the damp Portland weather. Beyond this entrance point is a raised terrace and monumental stairway. The north end of this stairway contains a terra-cotta arch which is the entrance to a lower enclosed level. Exhibits, storage area, a small theater, and public facilities could be housed here. The archway itself is an ideal spot for public address.

On the upper level, behind this arch, are two tinted glass pavilions with arbors of climbing roses, and a glass-roofed, terraced pergola with channels of running water. A small

amphitheater to the east can be adapted to use as a stage, bandstand, or simple seating area. The north side of the square, an arrival point for transit passengers, is less ordered, with trees sometimes replacing columns and a smaller awning. In all of these instances, the classical references of the square achieve a balance with the more regional, contemporary elements, vital to the modern urban square. All of these different areas and functions frame the central, open space of the square, ideal for larger public events.

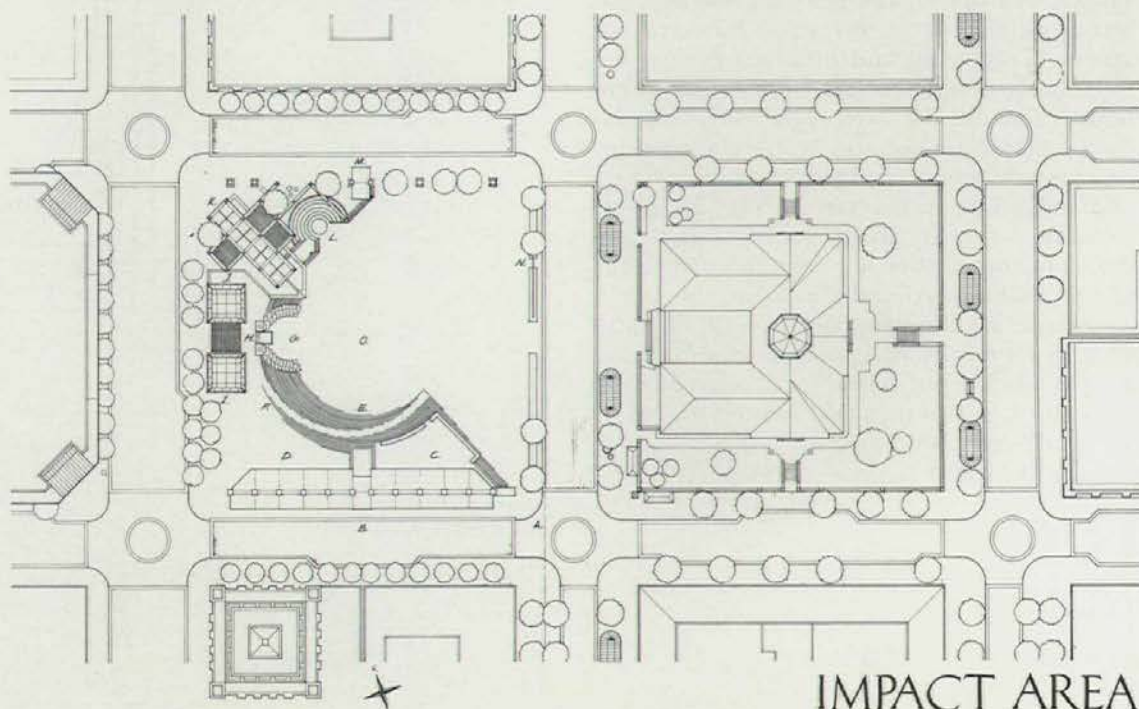
Construction materials and methods: Brick paving, terra-cotta-clad columns and arch, fabric awnings, bronze and tinted glass pavilions.

Jury comments

Stein: One thing that it's done, in quite a good manner, on a site that slopes as dramatically as this, is always to keep these street levels in a good relationship with the public space. I think that the device of using a semicircle to reconcile the two elevations here is handled rather nicely. It requires a fairly formal space in recognition of the formality of the courthouse building. I don't think it's an axial space, and I don't think the rest of the square is an axial square.

Giurgola: It is very episodic; I have some doubt about the resulting character.

Bacon: I don't like it; it's a very good example

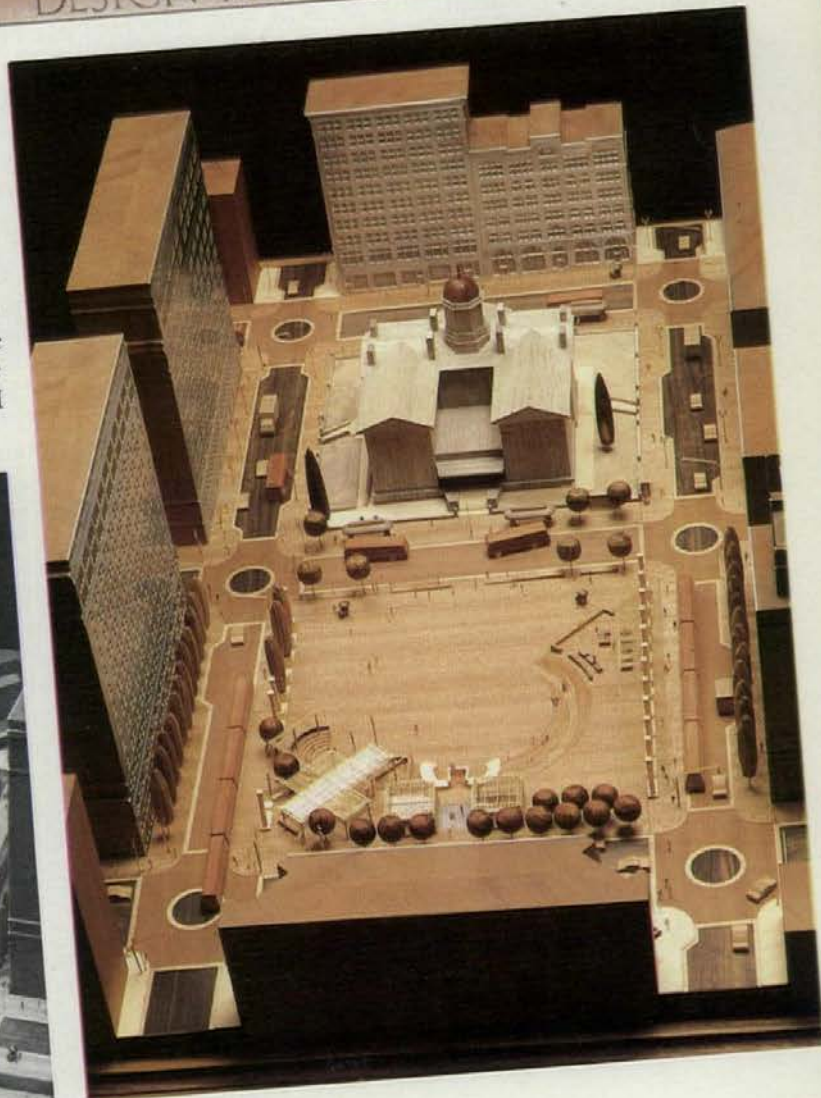
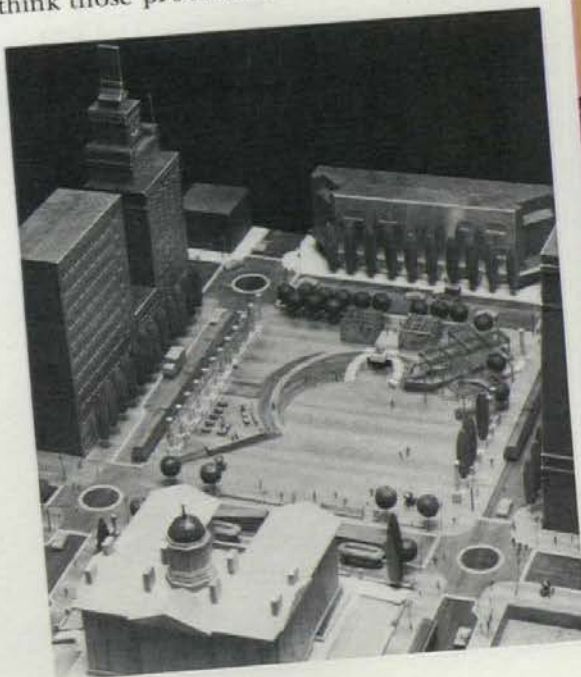


PIONEER COURTHOUSE SQUARE

DESIGN AREA PERSPECTIVE

of the consequences of the current fashionable clichés failing to understand the fundamentals of urban design.

Frasca: It's potentially the most important urban space in Portland. I believe it addresses most of the issues in terms of what that space ought to do. The streets have to go through; the transit malls at either end are a fact. The design team has done a very good job of containing it at the edges and still letting people and activity be seen through it. You can argue about the geometry of the elements, but I think those problems are minor.



Swaney Kerns Architects Robert Barber Anderson

By reemphasizing rather than disrupting, a repetitive roof line becomes an imaginative way to expand space in this Tudor Revival style apartment building.

Credits

Architects: Swaney Kerns Architects, Robert Barber Anderson, Washington, DC. Tom Kerns, principal/director of design; Bob Anderson, principal/project designer; Levy Santos, job captain; Don Harris, Lynne Watkins, Abby Goodman, design team.

Consultants: E.K. Fox & Associates, Ltd., mechanical/electrical; Funkhouser Associates, structural; Soils Testing Services, Stephen L. Tuttle, structural testing.

Modelmaker: Deborah Yin.

Model photographer: Peter Harholdt.

Renderer: Trebor Nosredna, Mickey Finn, Deborah Yin.

Client: Ronald J. Cohen, Rockville, Md.

Project: Renovation and addition to an office building in Washington, DC.

Program: It was the client's hope to expand the office area while preserving the simple elegance of the post-WW-I Tudor Revival apartment building. Energy efficiency, access for handicapped, flexibility in interior space, and a second access were also strong considerations.

Site: Between a French Enlightenment Revival and a modern office building in the business district of Washington, DC.

Solution: A 3½-story addition, stepping back gradually, with balconies and skylights at each level, maintains the scale and presence of the existing façade while adding the needed space. To accentuate this stepped design, as well as to alleviate the problem of matching the existing brick, a gradation of red tones was chosen, with the lighter brick at each ascending level. The roof line design recalls the mansard roof of its French Revival neighbor.

As dramatic is the curving wall which defines a special two-story indoor/outdoor area at the cellar and first-floor levels. The emerald glazed tiles, when lit, create an unusual and intriguing effect in an area suitable for cafés, atriums, or a sculpture garden.

Individually controlled heat pump units and through-wall air handling units in the rest of the building permit energy flexibility, and glass areas on the south allow some solar heating. The main lobby at the cellar level provides easy ramp access.

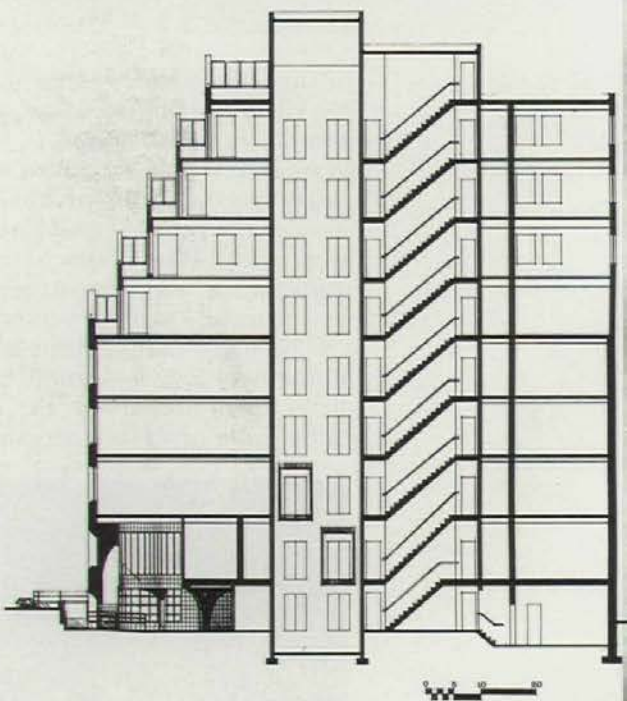
Construction methods and materials: Brick and concrete block walls; contrasting brick used to recreate the effect of limestone trim on existing building; glazed tile.

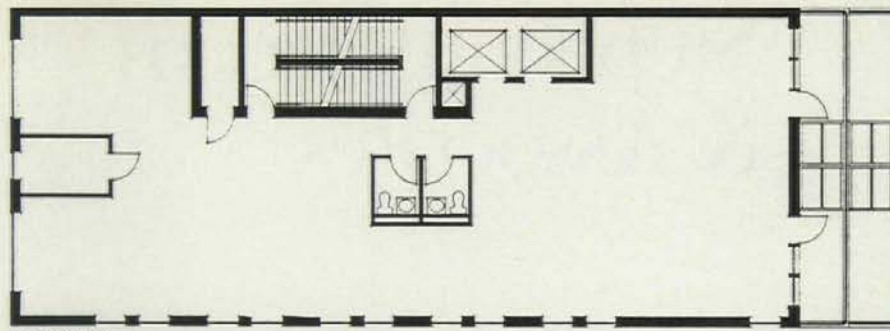
Jury comments

Hartman: One point I'd like to make about this is that we've seen a number of unsuccessful and labored attempts to design old buildings that fit into contextual neighborhoods. We've seen buildings that were just downright silly from their excesses. And here's one doing something that seems like a very useful thing to do, a very important thing to do, and at least it's not silly or unrelated to what's around it.

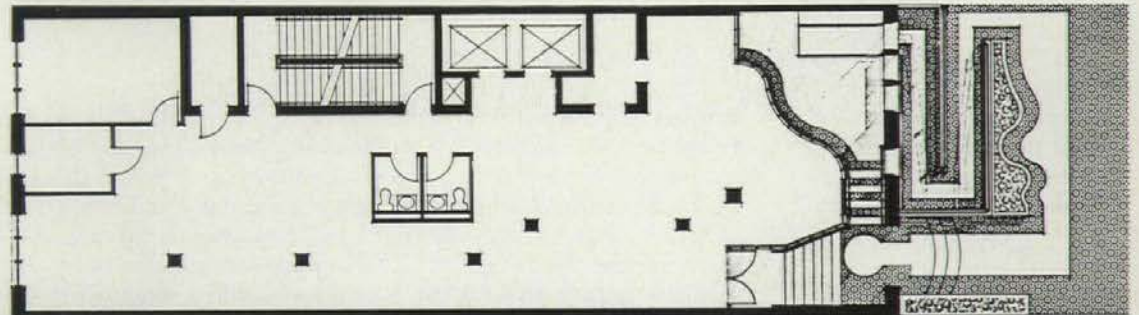
Frasca: Well, that entrance at the ground level looks a little silly.

Stein: The counter note on that may be that after you've seen that one witticism once, will you still enjoy it as much when you see it every day as you pass by? Or does it then become a little bit unnecessary, a bit too much?

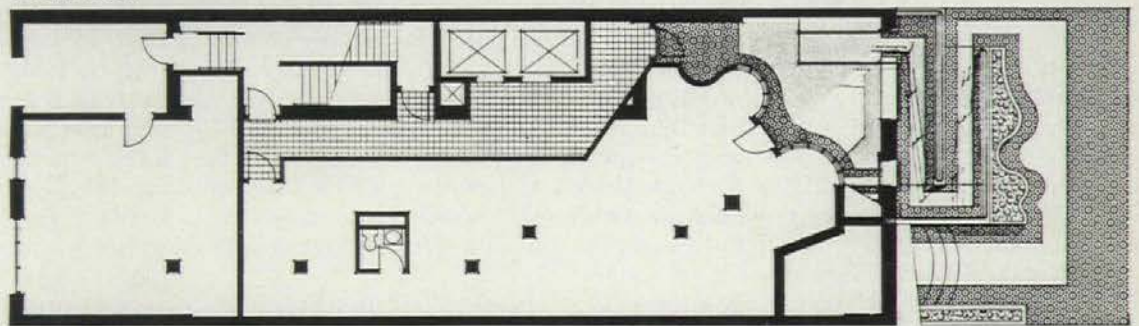




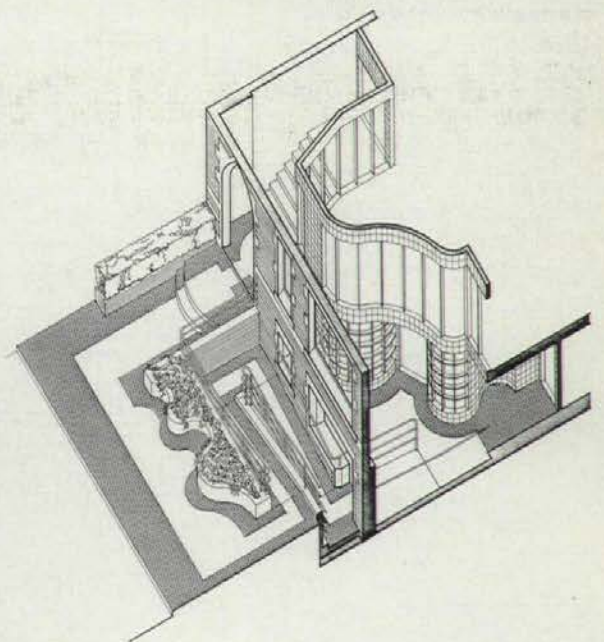
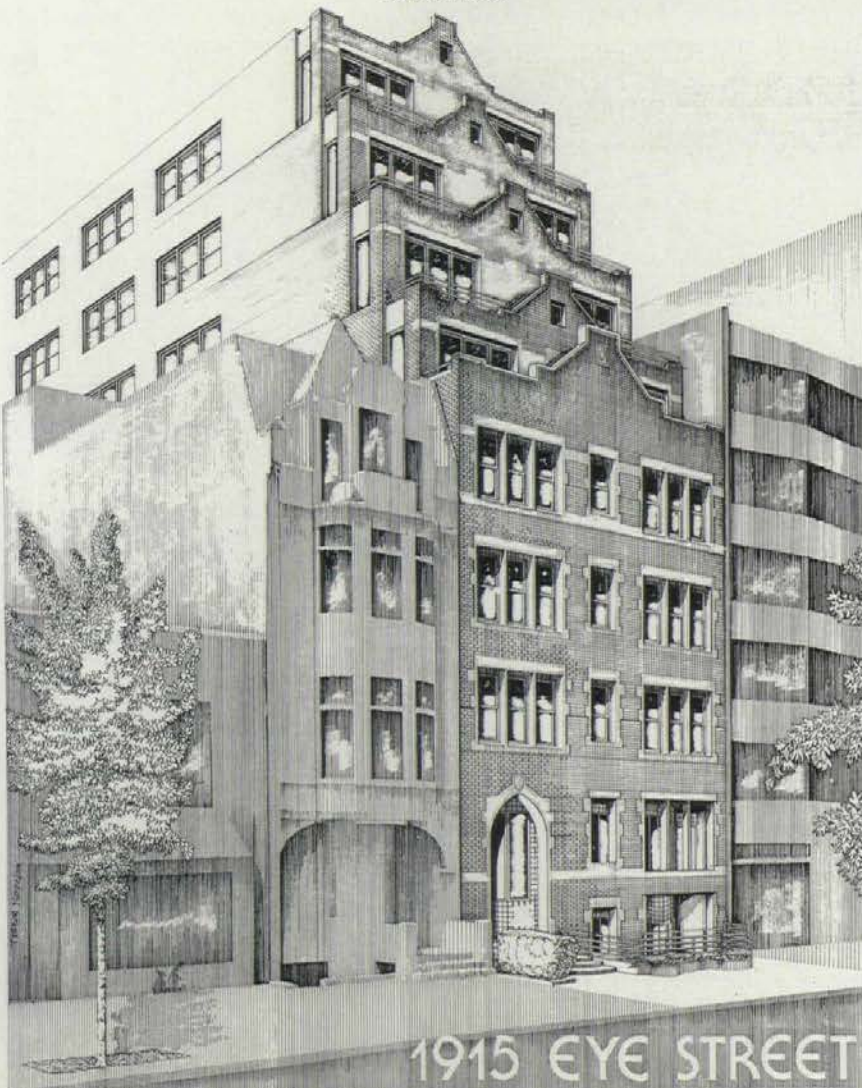
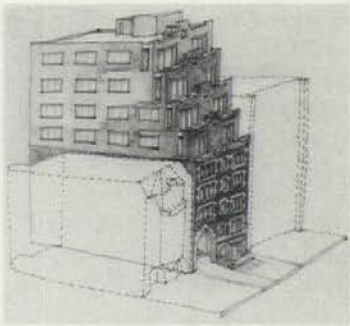
UPPER FLOOR



SECOND FLOOR



LOWER FLOOR



Stephen B. Jacobs & Associates

Historical suggestions, rather than statements, are the key to renovating in a landmark neighborhood.

Credits

Architects: Stephen B. Jacobs & Associates, New York. Stephen B. Jacobs, project architect; Alfred Y. Wen, Robert Theis, Peter Winfield, project team.

Modelmaker: Peter Winfield.

Model photographer: Mark Tannin.

Renderer: Robert Theis.

Client: Ms. Linda Burley.

Project: Christopher Street Housing.

Program: The design for multifamily housing includes a new structure on the site of an existing parking lot as well as the remodeling of an obsolete garage adjacent to it. Because the neighborhood is historic, both plans were carefully scrutinized by the local community and the landmarks preservation commission. Thus what the architects hoped to achieve was a building that could fit into the context of the historic district while also suggesting a more modern urban dynamism.

Site: A garage built as a stable in the 1880s and a parking lot in New York City. The through-block site permits high visibility in that the parking lot fronts on a street that terminates the axis of a second street at a 90-degree angle.

Solution: The historical references of the neighborhood are inconsistent—a five-story Victorian tenement, three-story Federal buildings and various tall loft and apartment

buildings. The solution here was to make historical allusions, rather than to add yet another direct reference. The former garage has been converted with single-floor dwelling units on the lower floors. A mezzanine has also been added, creating duplex apartments on the top floor.

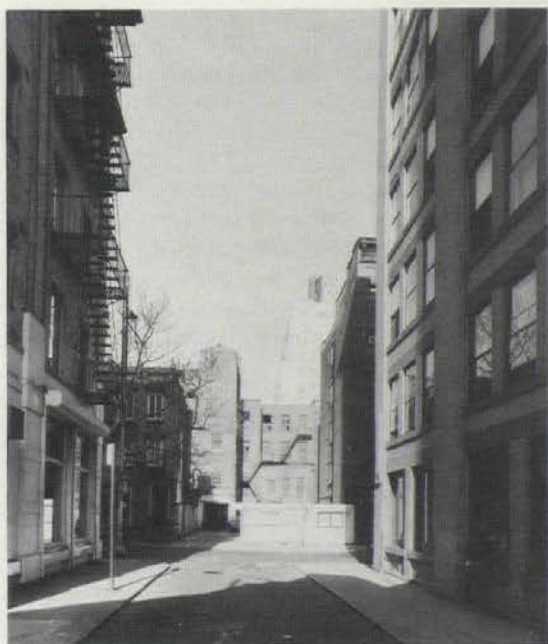
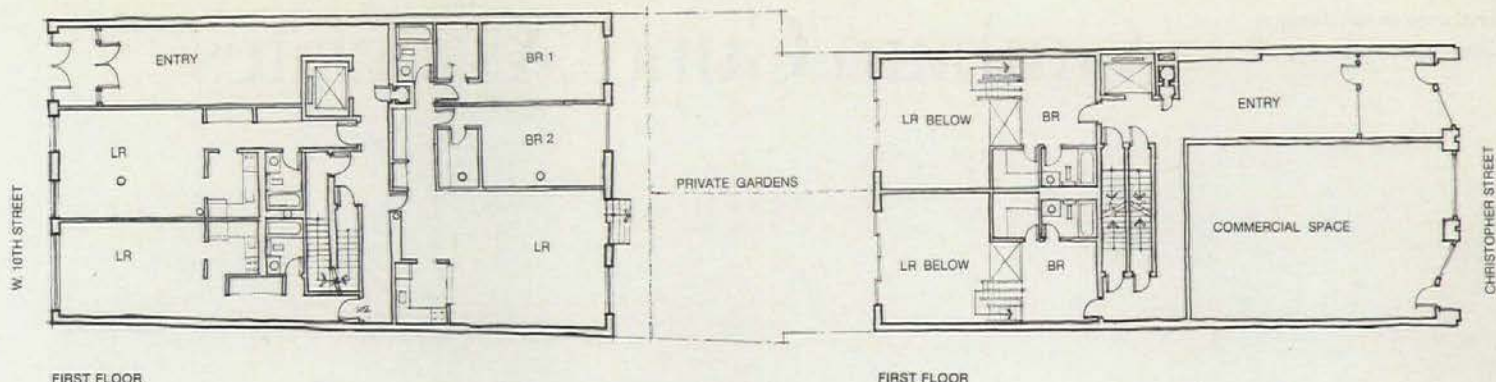
The new building—on the parking lot site—consists of duplex apartments on the front façade above a ground-floor store. Further defining the levels of the duplex are a narrow, recessed balcony on the lower floor and inset bay windows at the upper, bedroom level. The façade itself is transitional, drawing the eye from the three-story Federal houses to the larger scale of the tenement. At the entrance to the building, *trompe l'oeil* vanishing points create enigmatic focal points for those approaching on the perpendicular street.

Construction materials and methods: Reinforced concrete structure, light beige face brick, and black anodized window frames.



NORTH ELEVATION
WEST TENTH STREET





Jury comments

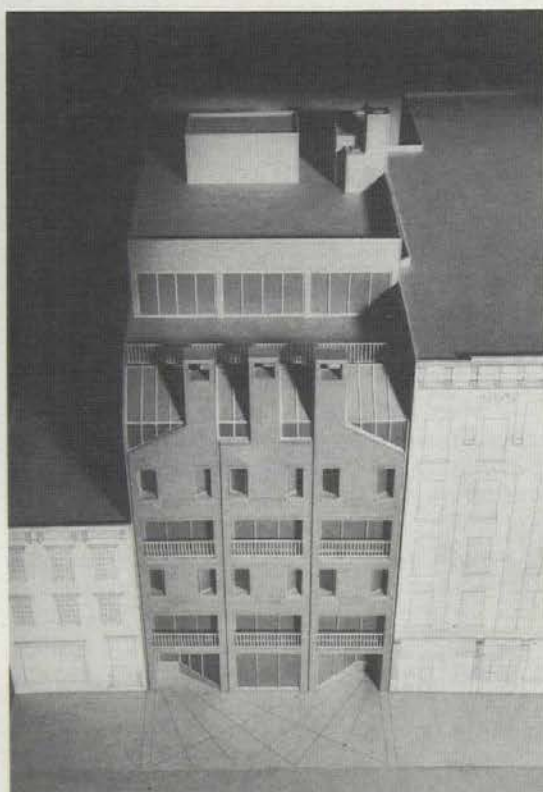
Giurgola: In the recycling of the fabric of the city, this is a very concrete answer because it does well in preserving the whole façade on 10th Street and produces a good end to Gay Street. The façade certainly conveys the sense of residence, it responds to the parti of the interior, and it even introduces, with the skylights, an added value to the masonry wall. The overall result is more than simple good-sense architecture, it really enhances the entire attitude to the street.

Hartman: This project is an excellent example of an urban infill building in a historic district. The flexibility of response to the different conditions of the two façades is especially commendable. The new façade is not only well designed but is also a good neighbor to the varying scales surrounding it. The addition of this façade unifies the street at which it is placed while also acting as an accent when seen at right angles from a distance. Very nice.

Giurgola: It certainly makes a good presence in the street in good scale.

Stein: It does it, really, in a way that actually enhances the pattern of the city street. There's nothing difficult or distinguished about the plan except that it works.

An existing garage building on West 10th Street (façades, opposite) will receive a facelift and conversion into apartments. The other end of the development (this page) is a new building on a former parking lot fronting on Christopher Street, at the intersection with Gay Street. From that direction, perspective tricks at the lower level create "vanishing points" in the two outside bays.



Graham Gund Associates

Adaptive reuse transfigures a church's sanctuary to a quiet garden refuge.

Credits

Architects: Graham Gund Associates, Cambridge, Ma. Graham Gund, principal in charge; Peter E. Madsen, principal/management; Lowell A. Warren III, project manager; David T. Perry, Leonard J. Bertaux, design team; Andrew Weiser, Jane Harrington, assistants.

Consultants: Le Messurier Associates/SCI, structural engineer.

Modelmaker: The Model Shop.

Model photographer: Steve Rosenthal.

Client: Mt. Vernon Church Condominiums, Inc., Boston, Ma.

Project: Mt. Vernon Church Condominiums.

Program: The trustees hoped to use the remaining walls of a Neo-Romanesque church, most of which had been destroyed by fire, as a framework for a new residential quadrangle on the site. Hoping to maintain some sense of continuity on the site, they evaluated several different plans before selecting this scheme.

Site: A historic neighborhood in Boston, Ma, overlooking a river on one side, a residential street on another, and a major thoroughfare on the third.

Solution: A large private garden, framed by the existing stonework, makes these urban residences havens from the busier pace of the city. Confined on two sides by church walls and on the other two sides by a new L-shaped building that acts as a foil to the ruins, the garden as sanctuary keeps a semblance of the church and becomes the core of the design. Remaining unobtrusively low, the new building accommodates two- and three-bedroom units. Townhouses are built into the steeple and portals, integrating residential scale into the ruin itself.

New and old play off each other as well. The new façades are textured with projecting bays that echo the past. In contrast, the old ruin is developed with newer elements such as the trellises, which sketch parts of the burned-out roofs.

Construction materials and methods: Concrete block and red face brick.

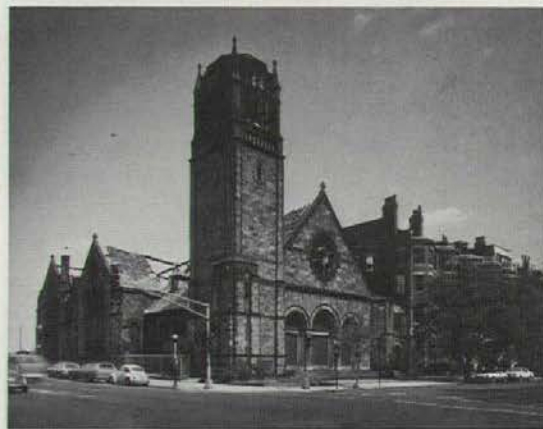
Jury comments

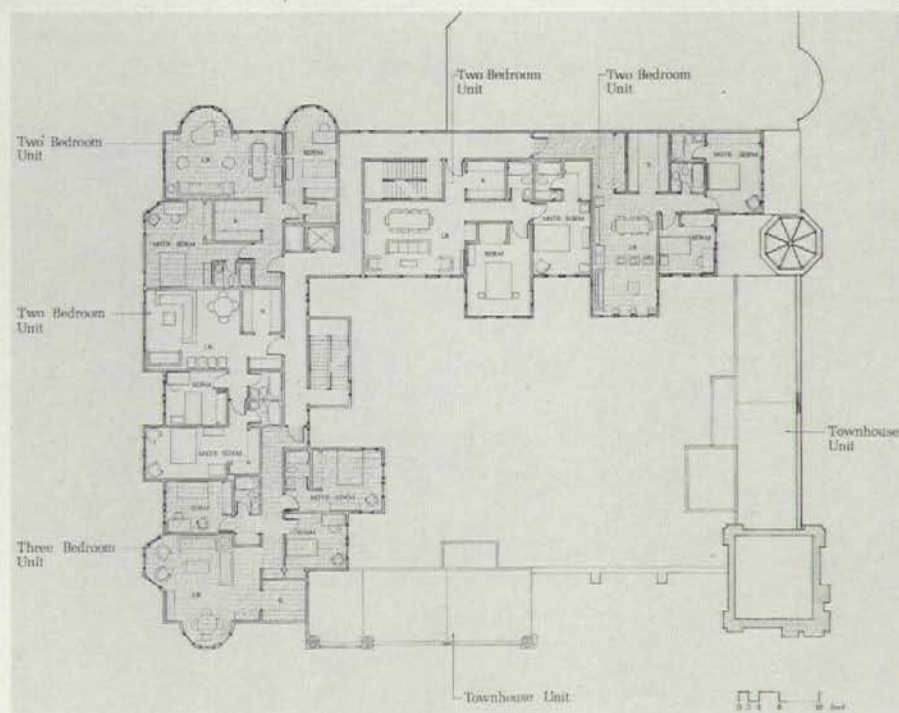
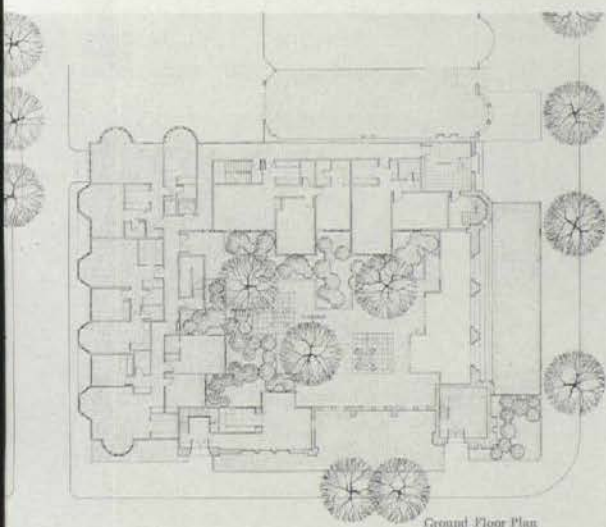
Hartman: This project represents an appropriate response to an unusual existing condition. It is a very good example of urban infill where the existing work is incorporated into the new. The city benefits from the preservation, and the new work benefits from the richness afforded by the context. This is what should happen more often.

Giurgola: The basic merit of the project is the focus on the value of open urban space and its connotations of architectural configuration and memories. Everything is somehow precious in the urban landscape, if it has a proper relationship. This project makes the architecture of the residence important as it relates to the ruin and vice-versa. The tower is a hinge, extremely valuable in the urban configuration, and could hardly be replaced. This relationship succeeds in making the place altogether new and, as a consequence, is a real contribution. Obviously, if this kind of attitude of saving residual buildings became

commonplace, it would not be good; thus each case must be carefully considered.

Frasca: I think we've been careful in this case not to "bless the hearts" of the architects just because they saw fit to save the carcass of a wonderful old church. The ruin uses the apartment as a foil to regain some of its former stature. The ruin returns the favor by dignifying the otherwise ordinary apartment beyond what it could achieve on its own. Where they come together, their respective architectures do so quietly, making a nice little garden space on the way.





Skidmore, Owings & Merrill

Quietly merging landscape with architecture, the new campus of the Menninger Foundation reflects a serenity appropriate for a psychiatric treatment center.

Credits

Architects: Skidmore, Owings & Merrill, Chicago. Kiene & Bradley Partnership, associated architects. James R. DeStefano, design partner; William E. Hartmann, managing partner; Richard S. Joslin, architectural studio; John W. Kelsey, project manager; John F. Berchert, senior designer; Alice R. Wolfe, technical coordinator; James S. Guequierre, interior designer.

Consultants: Claude Engle Associates, lighting; Cerami & Associates, Inc., acoustical; Hubert Wilke, Inc., audio-visual.

Renderer: Carlos Diniz Associates.

Client: The Menninger Foundation, Topeka, Ks.

Project: The development of a new campus for the Menninger Foundation, a center for treatment, prevention, research, and education in psychiatry.

Program: The design of the new campus includes architectural design of new buildings, increasing the physical plant to four times the existing; the remodeling of existing facilities; and extensive landscaping. Important in the restructuring is the enhancement of the natural beauty of the site.

Site: The existing campus on low, wooded hills of Topeka, Ks.

Solution: An existing tower building is the focal point of the community and will become a museum and visitors' center. New buildings—professional offices, commons/dining area, a conference center, arts and education studios, and a gymnasium—have all been integrated into the existing campus. The plan retains the orthogonal grid of the original campus.

The new, white-painted brick buildings are unobtrusively low. Arranged around a series of courtyards, they bind together the remod-

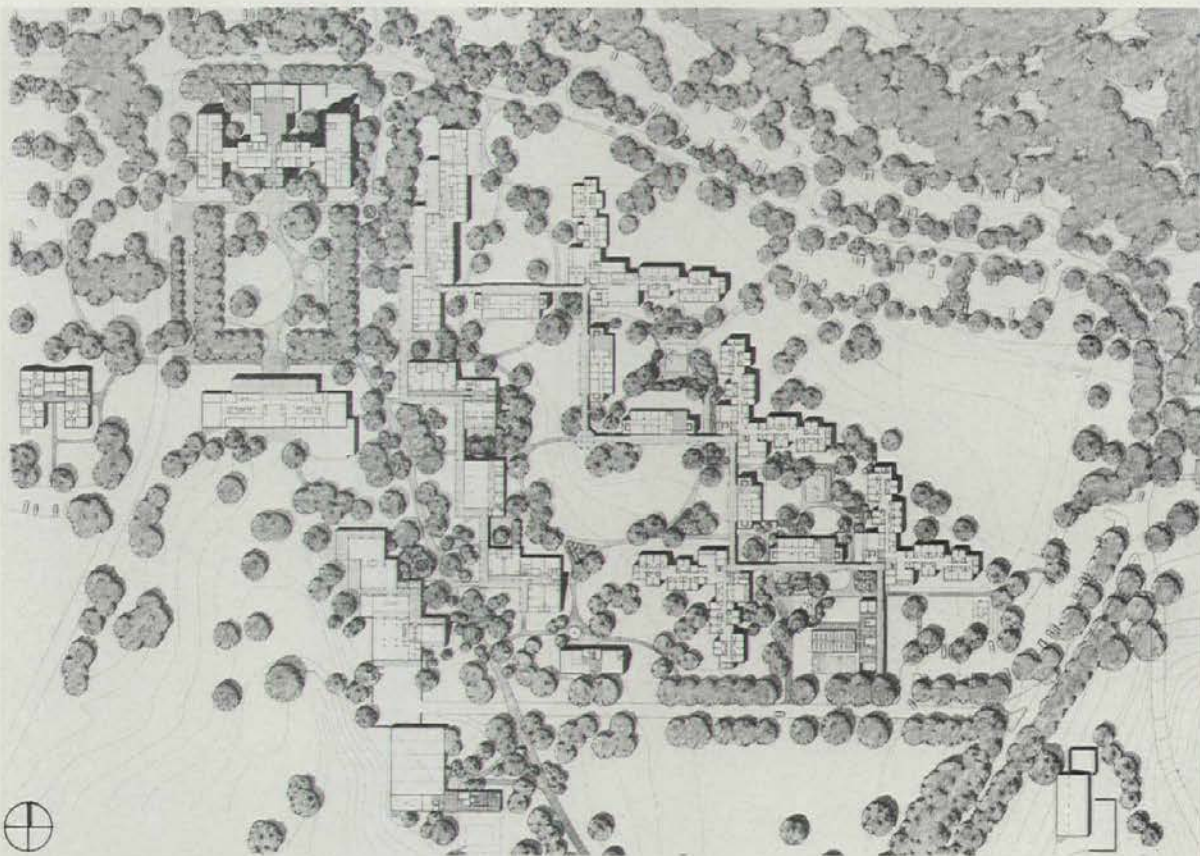
eled older structures. Diagonal and curving walkways reflect the natural rise and fall of the site. As automobiles are not permitted on the campus, a central, tree-lined drive becomes the main walkway.

Eight independent living units that group single and double rooms make up a 166-bed psychiatric hospital spread across the brow of a hill. Allowing patients to interact in small groups while being a part of the larger community, the plan reflects the foundation's philosophy of treating patients in a community setting.

Construction materials and methods: Concrete and white-painted brick walls, natural wood ceilings.

Jury comments

Hartman: It seems like a very uniform place, almost like a village, and yet the relationships don't hurt the rigorous organization of it or the functional disposition on the terrain. They've been able to get their act pretty much together here. The drawings are certainly serene. It's also a building type where the



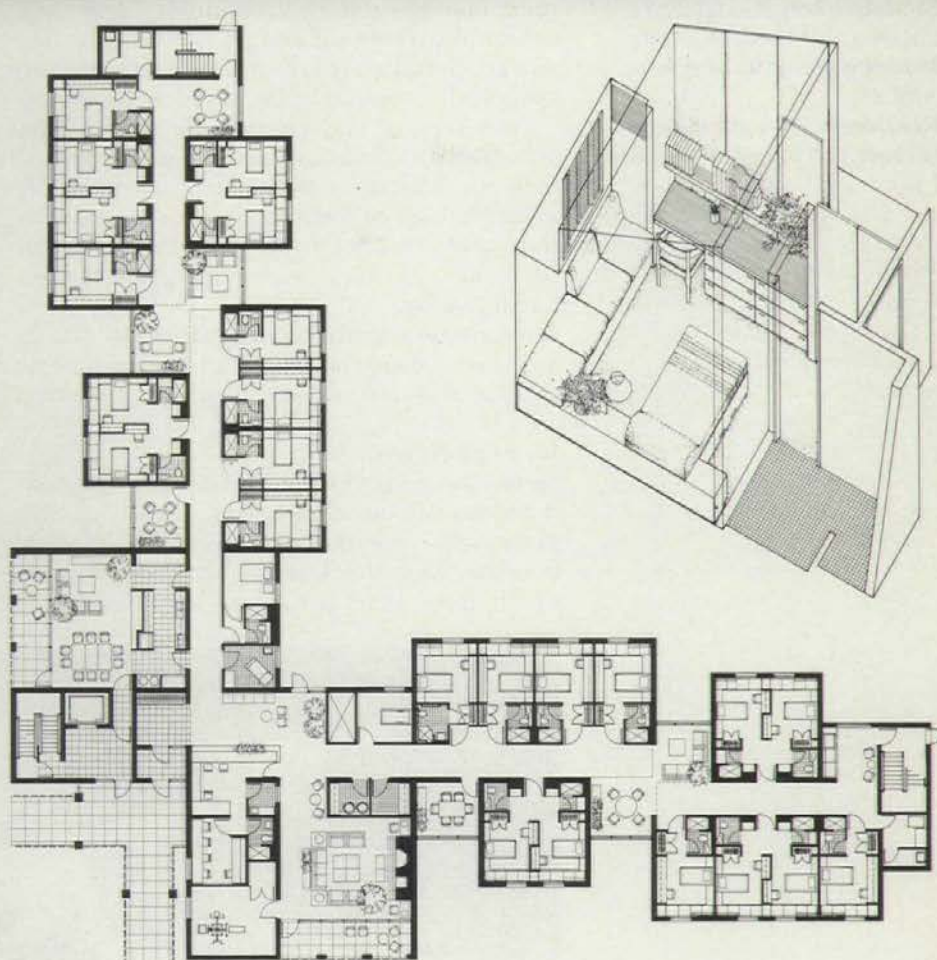
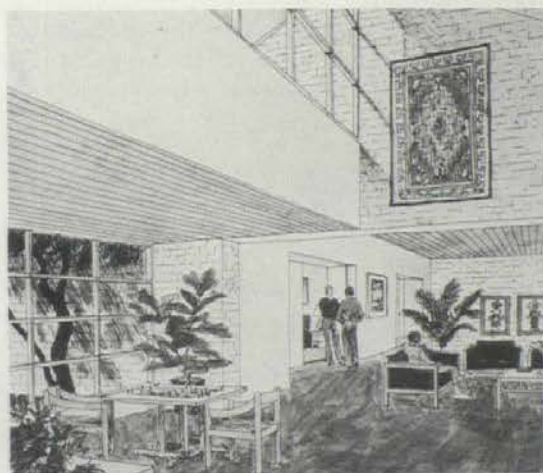
Site Plan



programmatic requirements usually preclude a particularly relaxed solution.

Stein: It's a relatively simple repetitious problem that doesn't deserve a complex architectural solution, and I think that there's something quite nice about seeing something that doesn't make undue demands on either the buildings or the people in response to the buildings. I think the scale of it is acceptable; it has a very retiring character. I think it's unusual and worthy.

Giurgola: I like the notion that the room is a room, with all of the elements that make up a room. They're not fooling around making exercises.



Patients' Living Unit

Patient's Room

Sam Davis Vladimir Bazjanac

Meeting the demands of high suburban density, this housing development is a thoughtful integration of energy efficiency and high design standards.

Credits

Architects: Sam Davis with Vladimir Bazjanac, Berkeley, Ca. Richard Heapes, assistant.

Modelmaker: Richard Heapes and David Rauch.

Model photographer: Peter Xiques.

Renderer: Richard Heapes.

Client: Tandem Properties Inc.

Project: 144 units of market rate housing for the Summertree Housing Development.

Program: To allow multifamily dwellings—16 units per acre—to maintain the amenities of the detached single-family home; and to incorporate in these studio, one-, two-, and three-bedroom units an energy system that does not preclude high standards of design.

Site: Eight level acres in Sacramento.

Solution: To maintain a sense of privacy in high density, each dwelling is a courtyard house, formed by a grid of four 16' x 16' squares. One of these is an exterior private outdoor space, which is separated by a wall from the adjoining unit.

Clusters of 16 to 20 courtyard houses are then linked by semiprivate outdoor space to a community building and pool. Between clusters are parking areas that allow a 2:1 parking ratio while avoiding large, paved areas.

Architecture and energy are tightly integrated to include active and passive solar systems for heating, cooling, and hot water; loft areas that allow heating upstairs by radiant slab and increased air movement; earth berm; and recessed south glazing and limited north glazing.

Construction methods and materials: Standard wood construction, double-glazed windows, and stucco wall surfaces.

Jury comments

Stein: One reason it's in the citation category is because it has faults. But it also has the great virtue of looking for a very dense urban housing type that's responsive to the sun, which does have provisions and a general

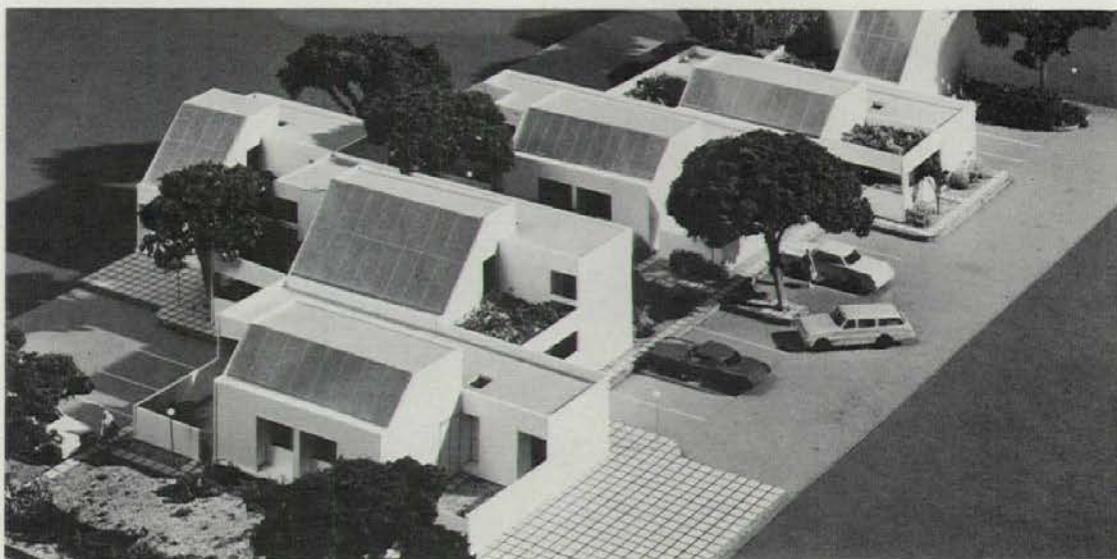
orientation for solar collection. It addresses problems of the traffic relationship, the pedestrian relationship to the layout. In the pattern of single-family houses, it does maintain a reasonable density and a reasonable level of amenity. It's a difficult problem, it's an important problem; it has been very seriously approached, and it's on the way to a good solution here.

The difficulties are partly the fact that with all the solar orientation, it still has an enormous dependence on automobiles; the automobile penetrates through it and becomes fairly dominant.

Hartman: It raises the energy issue with forms resulting from it that are actually integrated. This is the only project I could find in this run where the response to solar was actively integrated as a design device with the way the buildings went together. It isn't an add-on thing. There is an exchange back and forth. It varies the inherent rigidity of solar with everything orientated the same way. I think that's a big contribution; it turns out to be pretty hard to do.

Giurgola: Still, I have some problems with this one. Somehow in the end, even though there are these sorts of careful areas for parking, it left the building with very small transitional elements. It's pretty monotonous. It's going at the same pace all over the place.

Stein: The limits, the design limits, the packing of the units creates a certain lack of differentiation. You don't have the modulation of space within it that one might hope for. I'd say that a second generation might produce that.

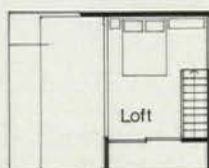
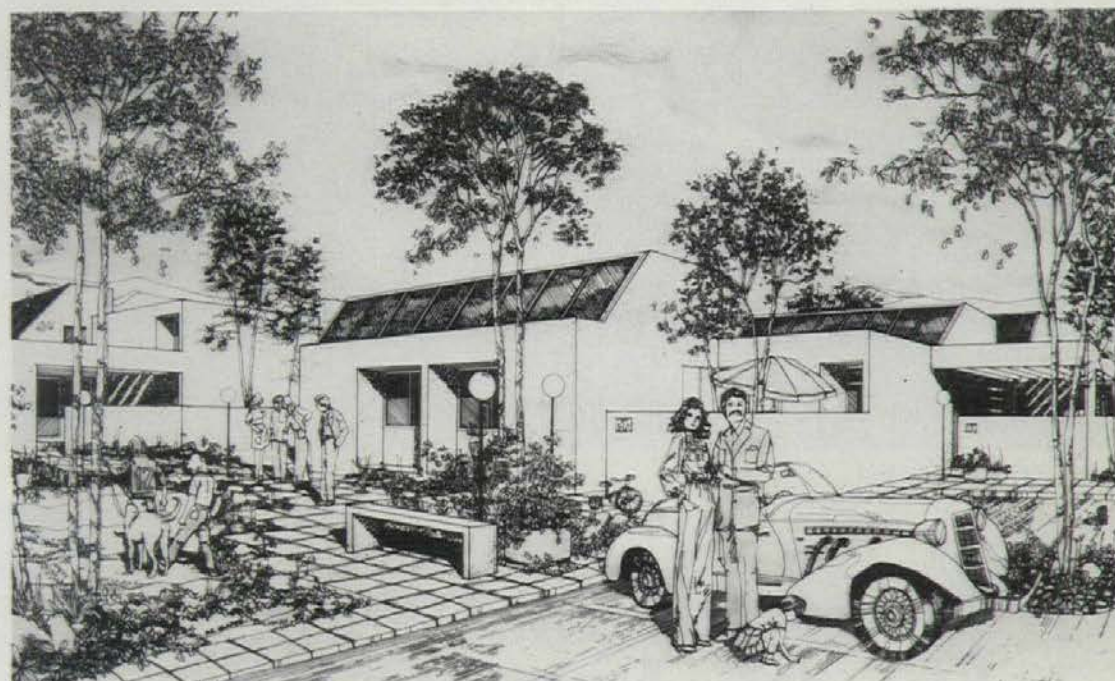
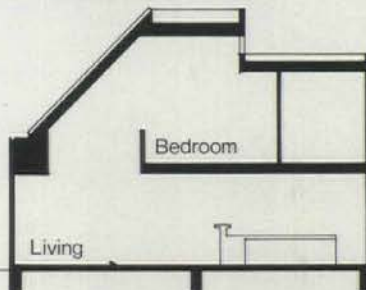




Two Bedroom



Three Bedroom



One Bedroom



Studios



Architectural Awards of Excellence

American Institute of Steel Construction

These four steel-framed structures, completed during 1979, are representative of the 16 buildings that received special commendation for outstanding design by the AISC. Through the artistry and skill of the people who designed and built them, these buildings express the flexibility, diversity and efficiency that are inherent in steel construction.

Bethlehem furnished structural steel for all of the buildings shown.

Special Mention

Project: Sixty State Street, Boston, Mass.; **Architect/Structural Engineer:** Skidmore, Owings & Merrill, Chicago, Ill.; **General Contractor:** Aberthaw Construction Co., Boston, Mass.; **Steel Fabricator/Erector:** Standard Erecting Co., Inc., Newington, Conn.; **Owner:** Cabot, Cabot & Forbes Co., Boston, Mass.





Jury of Awards

George E. Kassabaum, FAIA
Hellmuth, Obata & Kassabaum, Inc.
St. Louis, Mo.

Sarah P. Harkness, FAIA
Architects Collaborative, Inc.
Boston, Mass.

Ehrman B. Mitchell, Jr., FAIA
President, AIA
Mitchell/Guirgola
Philadelphia, Pa.

Daniel H. Shahan
Albert Kahn Associates, Inc.
Architects and Engineers
Detroit, Mich.

J. Albert Paquette, FASCE
Paquette & Associates
San Francisco, Calif.

Philip H. Hubbard, Jr.
President, Reinhold Publishing
Div. Penton/IPC
Stamford, Conn.

Architectural Award of Excellence

Project: Environmental Health Laboratory, St. Louis, Mo.; **Architect/Structural Engineer:** Holabird & Root, Chicago, Ill.; **General Contractor:** Hercules Construction Company, St. Louis, Mo.; **Steel Fabricator/Erector:** Kaysing Iron Works, St. Louis, Mo.; **Owner:** Monsanto Company, St. Louis, Mo.
Photo courtesy of Howard N. Kaplan, HNK Architectural Photography, Chicago, Ill.

Bethlehem



Architectural Award of Excellence

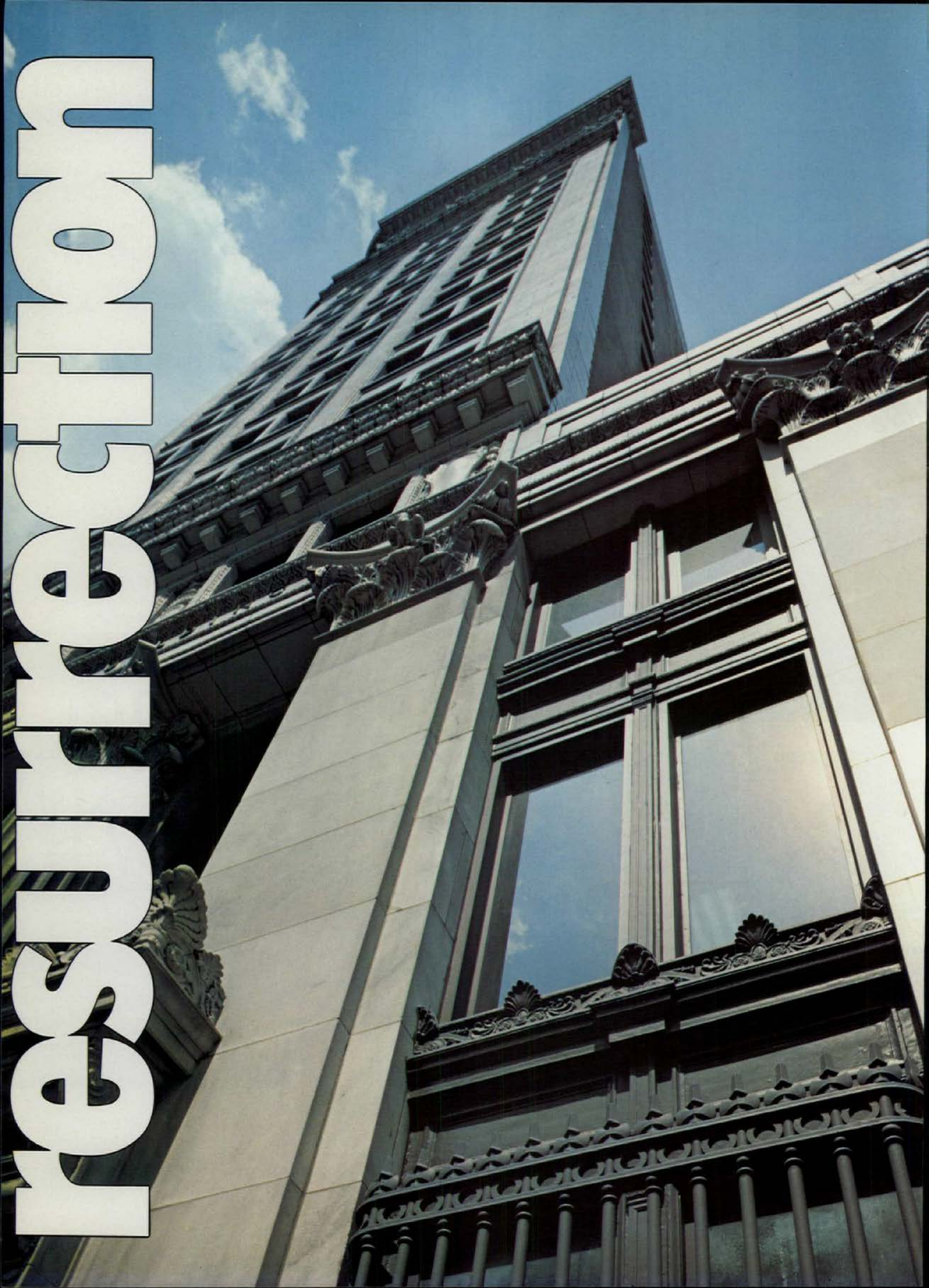
Project: Federated Building, Cincinnati, Ohio; **Architect/Structural Engineer:** RTKL Associates, Inc., Baltimore, Md.; **General Contractor:** Henry C. Beck Company, Atlanta, Ga.; **Steel Fabricator:** Alabama Engineering and Supply Company, Inc., Montgomery, Ala.; **Steel Erector:** Bristol Steel and Iron Works, Inc., Bristol, Va.; **Owner:** Federated Department Stores, Inc., Cincinnati, Ohio.



Architectural Award of Excellence

Project: Mid-America Center, Hot Springs, Ark.; **Architect:** Stuck Frier Lane Scott Beisner, Inc., Little Rock, Ark.; **Design Architect:** E. Verner Johnson & Associates, Inc., Boston, Mass.; **Structural Engineer:** Pitts & Associates, Engineers, Little Rock, Ark.; **General Contractor/Erector:** Nabholz Construction Corporation, Conway, Ark.; **Steel Fabricator:** Lashlee Steel Company, Benton, Ark.; **Owner:** Arkansas State Department of Parks and Tourism, Little Rock, Ark.

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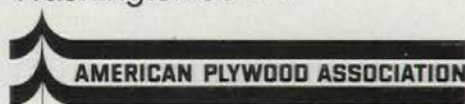
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CLASSICS

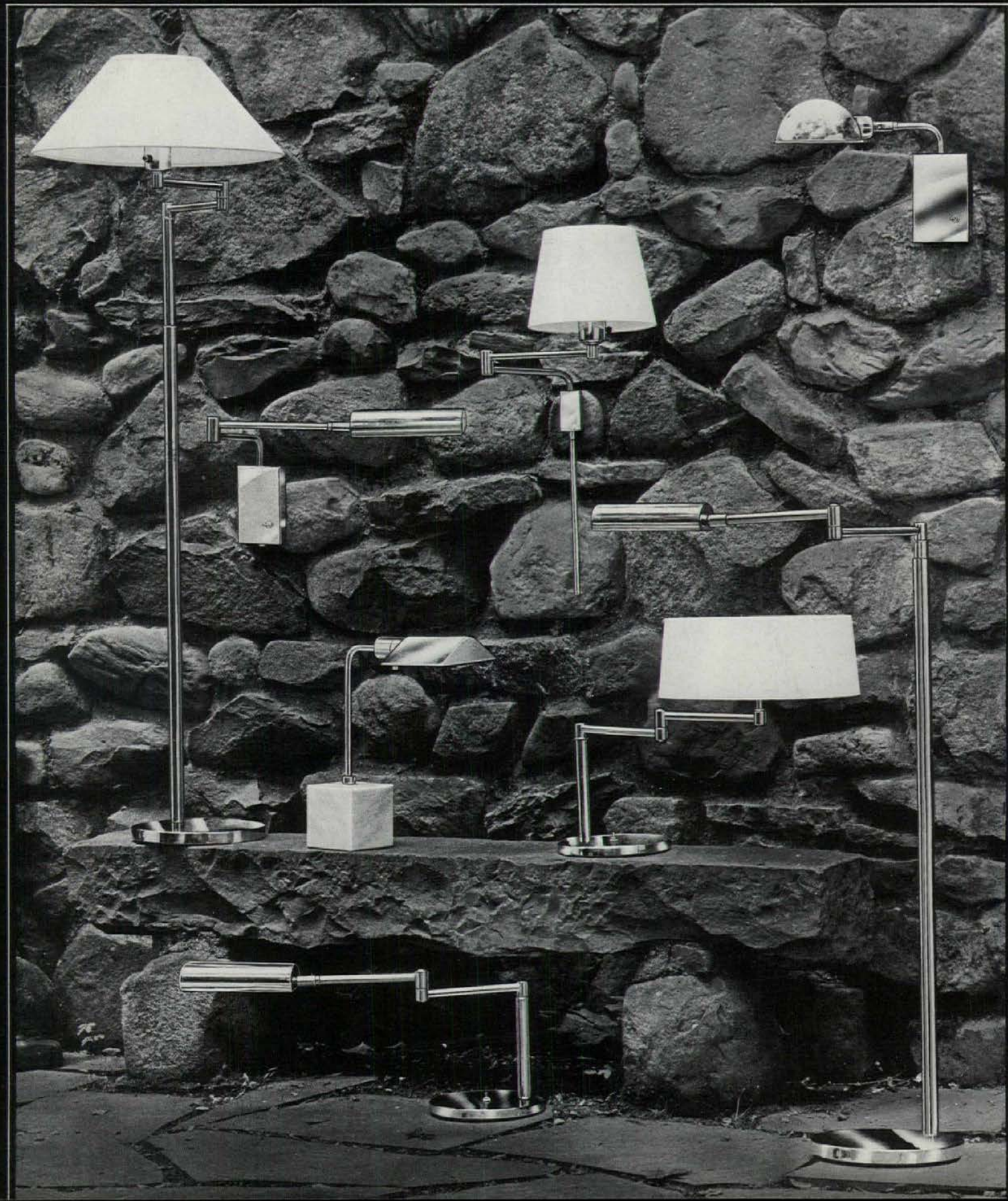
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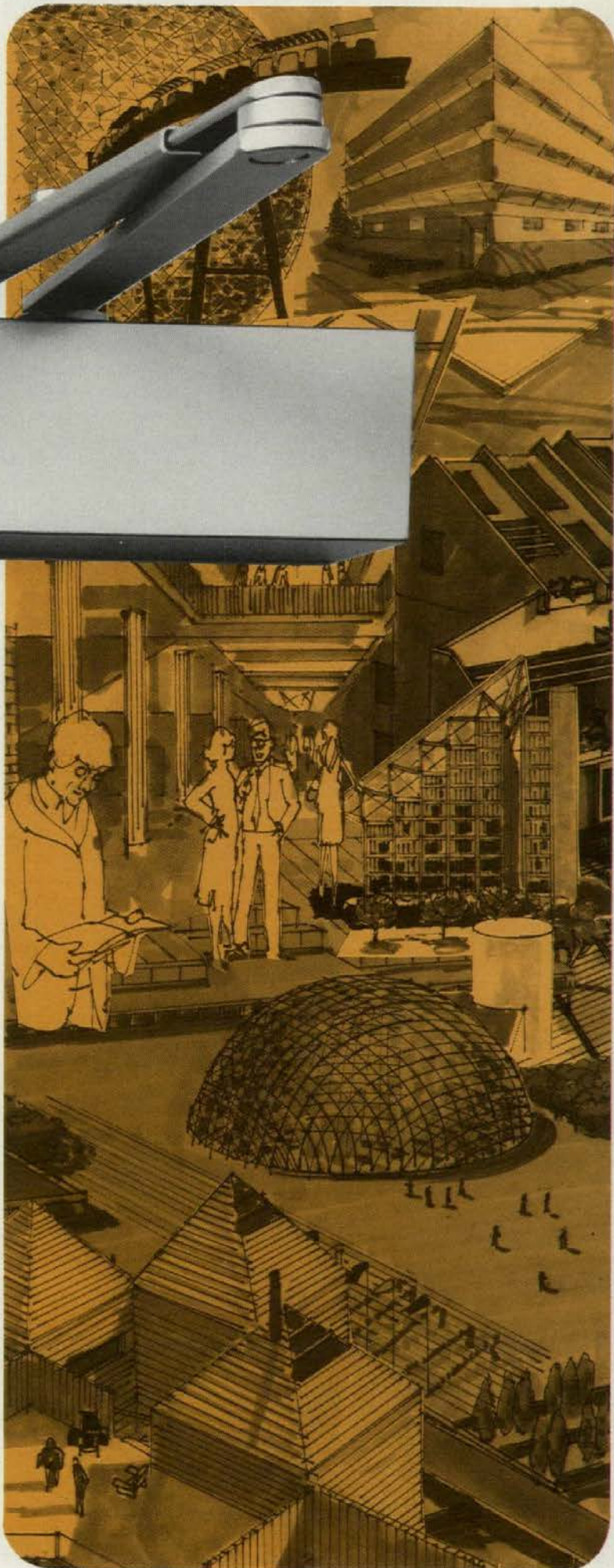
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Innovations in housing

Designs for a 1500-sq-ft house with major emphasis on energy concerns and an understanding of cost and marketability win awards.

Results in the third annual Innovations in Housing Program once again show a preference—at least in the majority of the five entries honored—for simple, skillful solutions. The program, cosponsored by the American Plywood Association, *Better Homes and Gardens* magazine, and P/A drew 227 entries, and those selected represent a broad geographic spectrum. The first award, presented to architect Bobbie B. Crump, Jr., of Baton Rouge, La, was his second honor in this annual competition; he won a citation of merit in last year's program.

Also returning for a second year as citation winners are Peter Jay Zweig and James E. Deininger of College Station, Tx, whose entry last year prompted some comments which might well be applicable to this year's entry. Notable among them was the remark by Noel "Red" Seney, *Better Homes and Gardens'* late and respected Building and Remodeling Editor. Seney found that submission "an example of the kind of forward thinking that we probably should be doing more of . . . the more the American public is exposed to this kind of far-reaching architectural thinking, the more educated they will be, and the more able to live with changes in the future."

We recall Red's words for several reasons, not the least of which is to honor the designers. Another is to inadequately express appreciation for his contribution to our competition and to the building industry as a whole. He is missed. In addition, the sentiments above delineate one of the main reasons why his publication and ours joined the APA in sponsoring the competition now entering its fourth year.

Jurors for the Third Innovations in Housing effort were: Walter J. Richardson of Richardson, Nagy, Martin in Newport Beach, Ca; Roy B. Fitch, Jr. of Fitch Creations, Inc., Builders in Chapel Hill, NC; David R. Hauptert, Building Editor, *Better Homes and Gardens*, Des Moines, Ia; and this writer for P/A. Fitch, incidently, is involved in the construction of both IH winners, the first published in P/A (Oct. 1980, p. 72). The announcement for this year's competition is to be found in the News Report Section this month, p. 37.

Recognizing the need for expanded innovation to solve material and energy shortages in a period of increasingly limited or curtailed options, the program seeks excellence. "Far-reaching architectural thinking," as Red Seney so aptly put it, has never been needed

more. We invite yours, once again, and offer our thanks for your past support.

[Jim Murphy]

First Award

Bobbie B. Crump, Jr.

Baton Rouge, La

Exemplifying the clean simplicity the jury found so appealing in several of the entries, this design also combined many options of energy control and space use. With great economy of means, the straightforward plan allows the uses, not the physical form, to change for different spaces. Variations in fenestration and skylighting and possibilities for berming are shown, indicating ways to adapt the scheme to varying climates. Other optional devices spelled out are operable windows, doubled or tinted glazing, insulating shades, and active solar collectors.

Recognizing that most submissions are only refined preliminary designs, the jury recommended several areas for further study before this one gets built by APA. In addition to the satisfaction of seeing the house built, the winner also receives a \$5000 cash award and a payment from *Better Homes and Gardens* for the sale of plans.

Jury comments

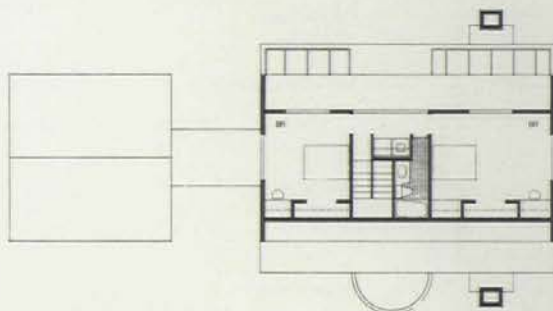
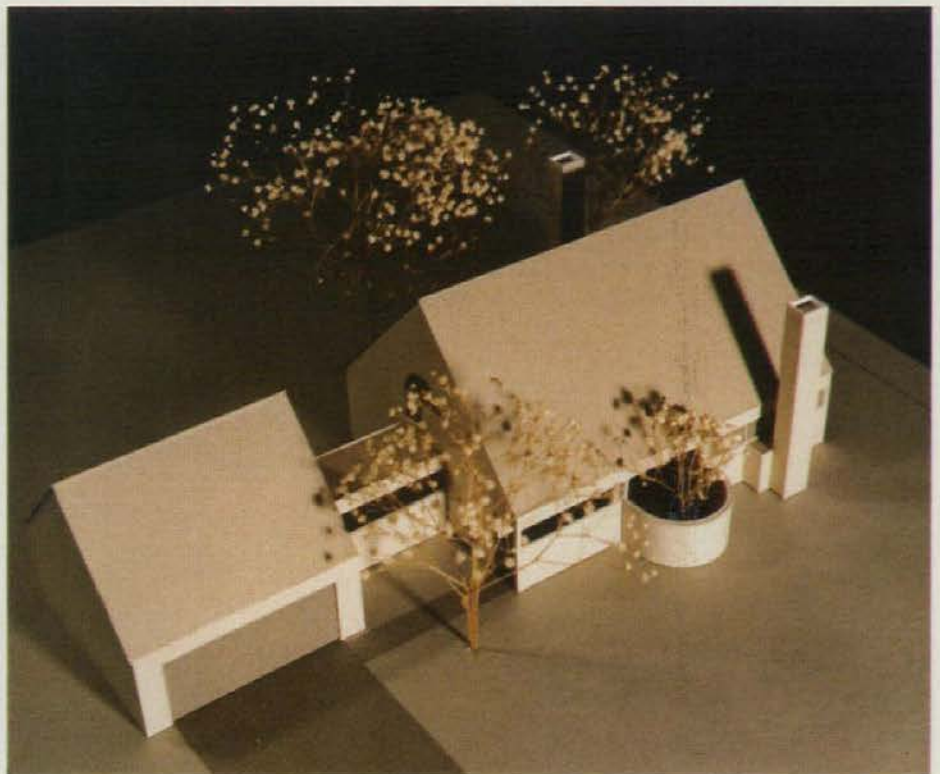
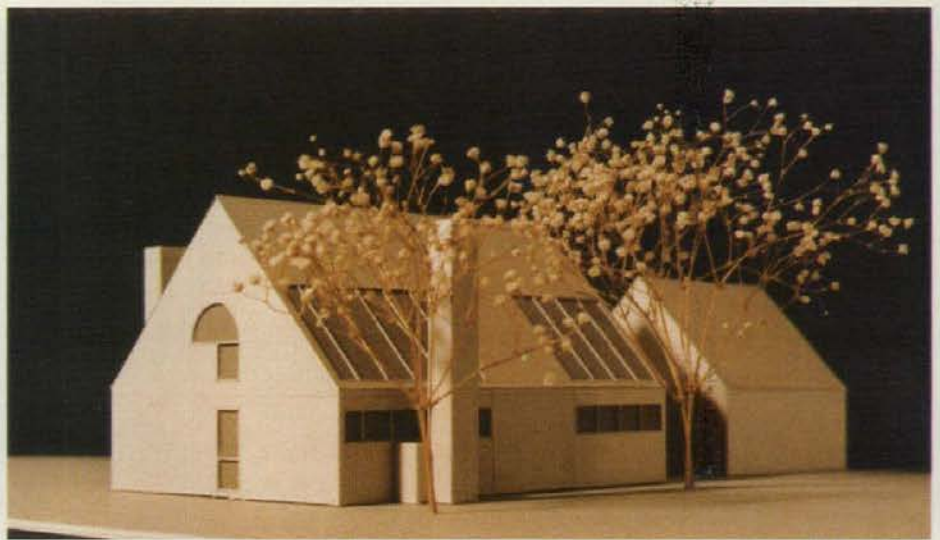
Hauptert: I see it as a house that would be easily identifiable with middle America. I came here hoping we would find a good passive solar house that didn't look like all the other passive solar houses that we have seen lately in print, and this one does that. It is different, it looks very livable. The spaces look as if they could be multifunctional, and I think a family would feel comfortable in it.

Fitch: I like the fact that it is clean, that it has a downstairs bedroom, which gives you sep-

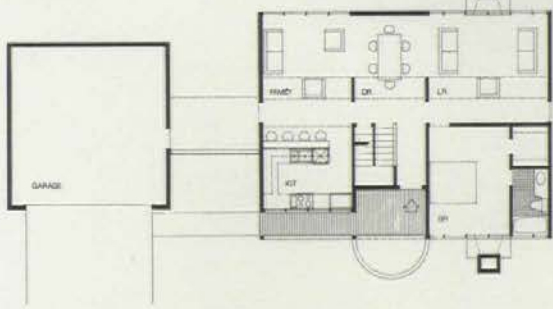
aration in case you have children or are an older person. I don't like glass roofs from a construction point of view, and I question this whole solar package. I think that needs a fair amount of work done on it, but the circulation is good. I think it would give some exciting forms.

Richardson: I think it's definitely the nicest combination of good design with a nice functional floor plan, and something consumers would accept very readily. I like the flexibility of its siting, the opportunities for turning it different ways on the lot. I like the articulation of the interior spaces; my concerns are similar—I think the solar aspect really needs to be addressed and solved. I find a little problem with the master bedroom and bath being upstairs, sharing the bath with another bedroom, and the location of the bath downstairs where you have to walk through the bedroom to get to it. It really doesn't serve as a powder room or guest bath.

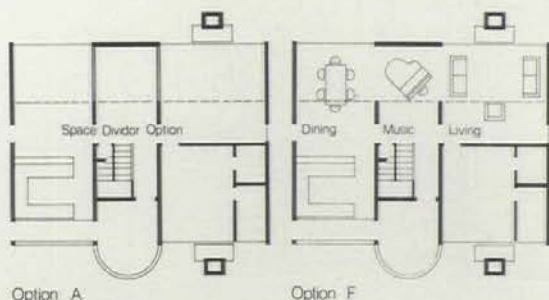
Murphy: The exterior statement is quite clean and minimal, and the plan is well organized and flexible. Architecturally, it is a nice expression, nicely handled, and should create some expressive spaces inside. Downstairs bath access, back yard access, possible excessive area (over 1500 sq ft), insufficient storage space, and the solar questions raised—all of these need further work. But I think with all these things worked out, it will be a good house.



Second Floor



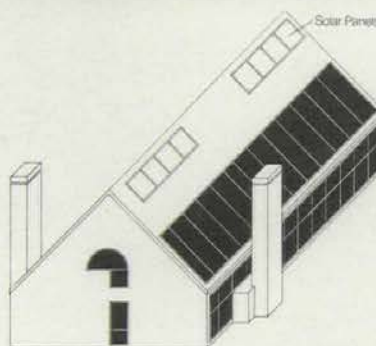
First Floor



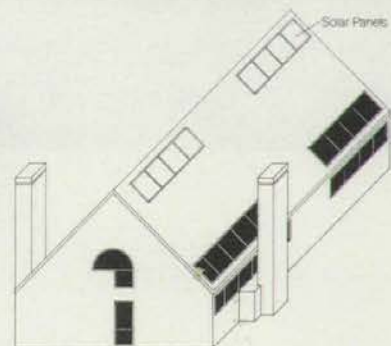
Option A

Option F

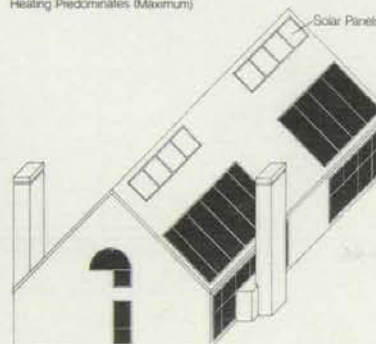
Solar System Flexibility



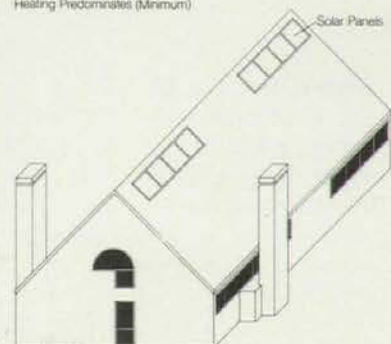
Option 1
Heating Predominates (Maximum)



Option 3
Heating Predominates (Minimum)



Option 2
Heating Predominates (Medium)



Option 4
Cooling Predominates

Citation of Merit

Komatsu/Brown Architects

Washington, DC.

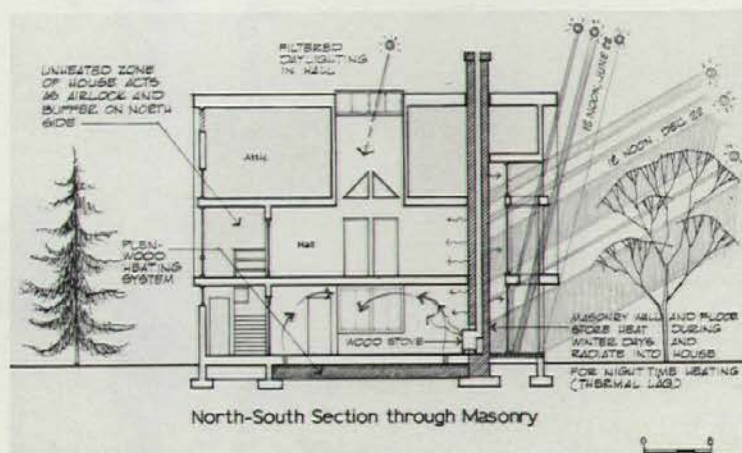
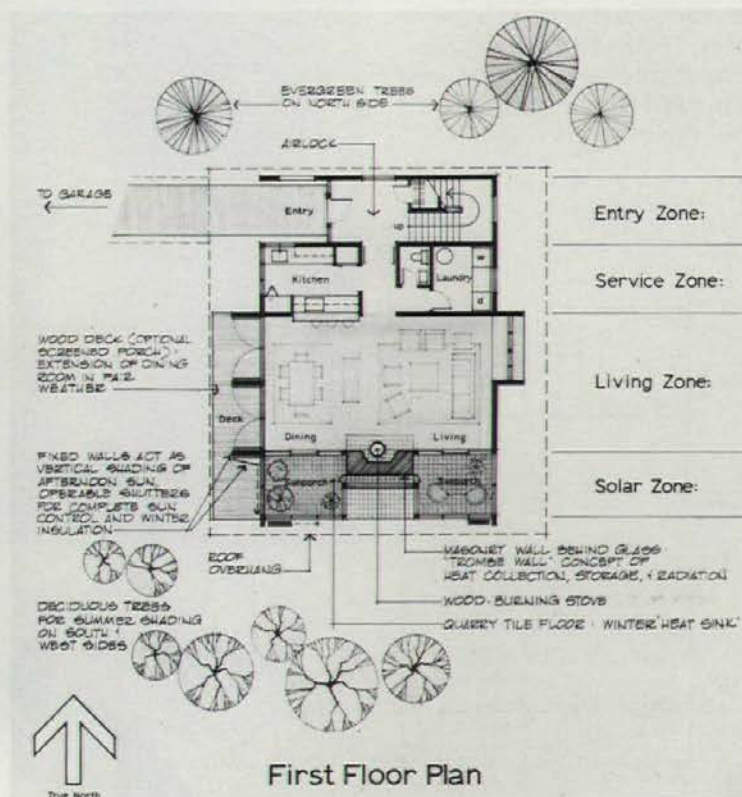
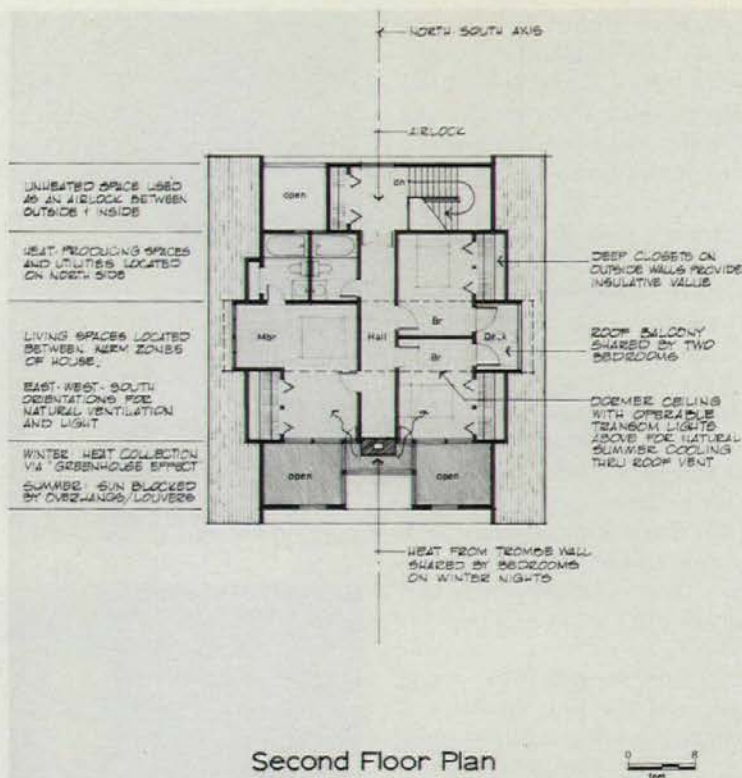
Jury comments

Fitch: It looks like a very cost-effective house to build. It's got good room sizes, it seems to have practical applications, it seems to fit. It would look good in any part of the country, and it has good exterior line. It has sort of a unique passive solar system.

Richardson: It has good site flexibility. I like the exterior character; it's a form that would appeal to people just about everywhere. It seems as if the solar solution is expensive.

Hauptert: The lower level is a little unexciting in that it doesn't have the volume; it is a comfy looking little house, though, and even though the solar thing looks expensive, it also looks as if it might be one of the most effective, combining direct and indirect gains.

Murphy: I like the massing and the scale of the façades and all the elements of the plan; some of us talked about reducing the dining area to enlarge the kitchen. I think that would help. I agree with the comments about the character; I think it has nice character.

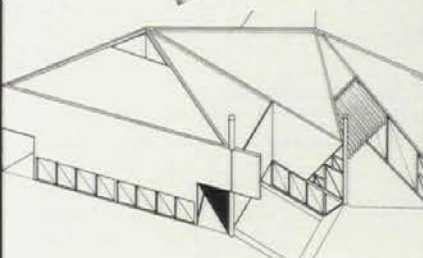
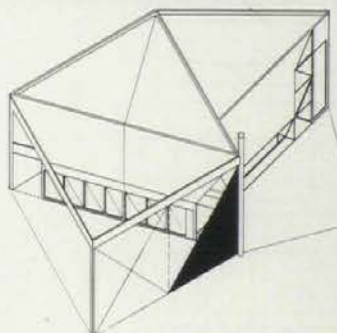
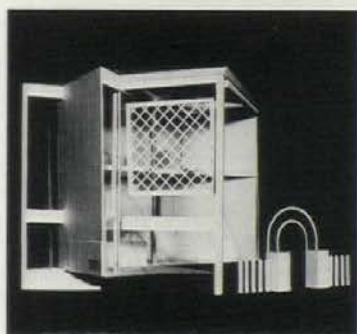


Dennis B. Brown, partner in charge; Emily K. Alexander, project designer; Jennifer Jackson, project designer; Komatsu/Brown Architects

Citation of Merit

Peter Jay Zweig James E. Deininger

College Station, Tx



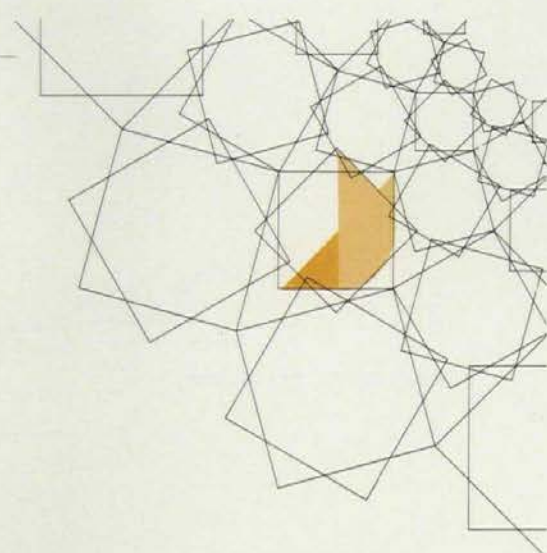
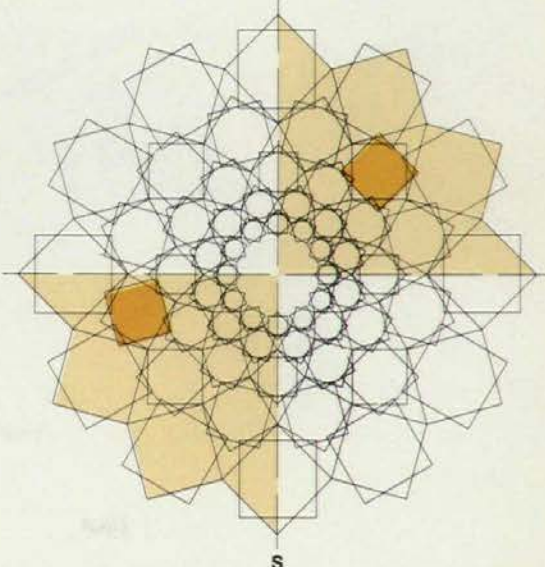
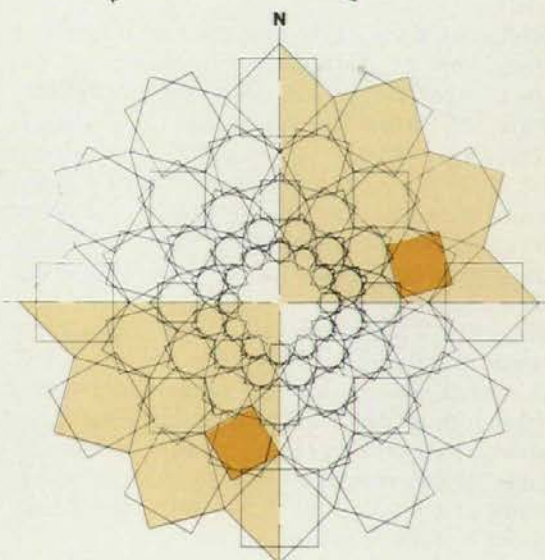
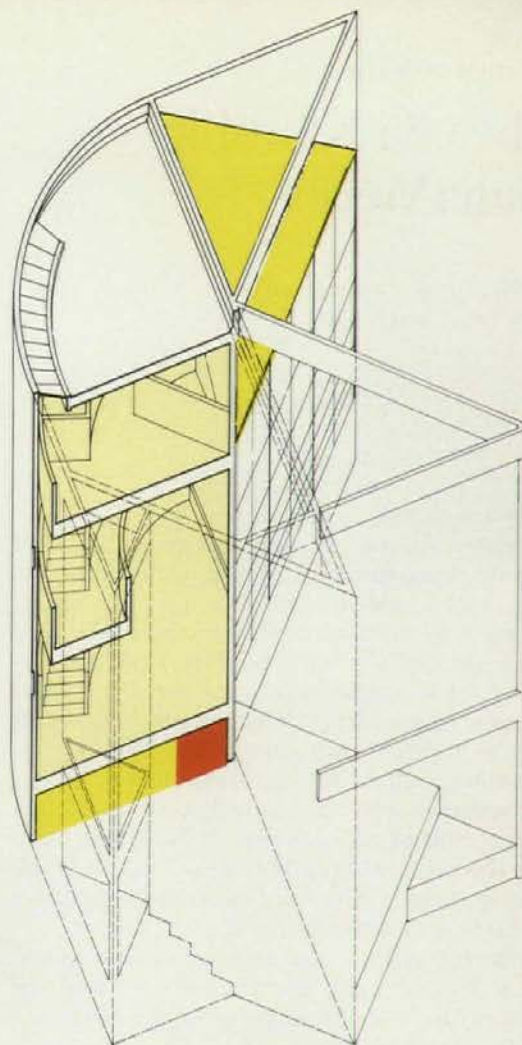
Although not singled out to receive a special citation as they were last year, these two designers have again entered a thoughtful, almost poetic design that did not get the total blessing of the jury. It proposes a geometric pattern, developed into a three-dimensional "armature" upon which may be mounted a series of elements in collage to modify the expression according to individual tastes or preferences. It is clearly not tailored to the common market trends, but tries to expand those, and in so doing, accomplish some of the thinking to which the introductory remarks allude.

Jury comment

Murphy: I like this project because it takes a theoretical approach to solving the problem, because it goes that one step beyond building to architectural thought. Although it seems a bit esoteric, there is a rationale for the diagrams and the philosophy included. It takes a look at what should be done in terms of orientation in different climates. I think it comes out with a dramatic, sculptural form, adaptable to various collage elements. I like to see things like this because it indicates the level of thought that goes into some of the entries in this competition. Entries that go beyond just building what seems pretty obvious at this point in time.

Fitch: I think it is interesting, but I think it would take a marketing skill to sell it, and the price on it would be hard to finance.

Richardson: It is a very beautiful presentation, but it makes me worry that I'm out of touch with innovation because I'm afraid I don't follow the process. There is a lot of attention to sculpture and intricacies, but not much thought to the real needs of living.



Mustafa Kanishka Galia Weiser

D. Nicholson, energy advisor; Salt Lake City, Ut

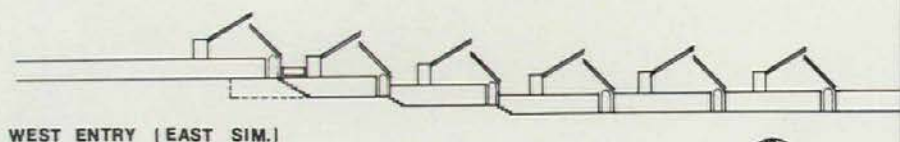
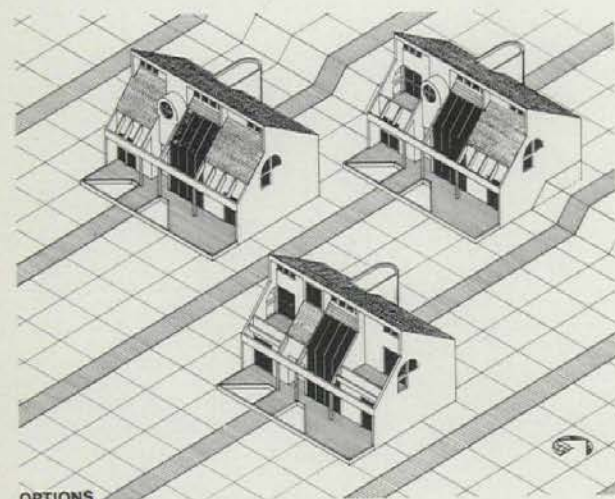
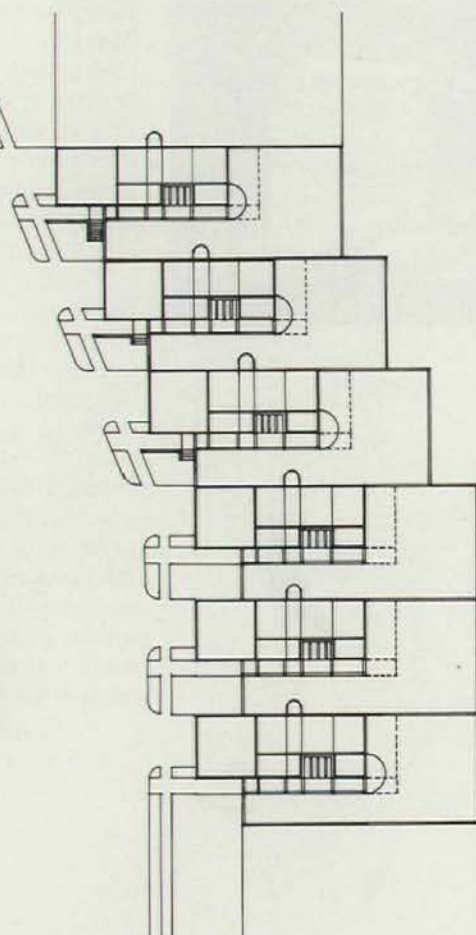
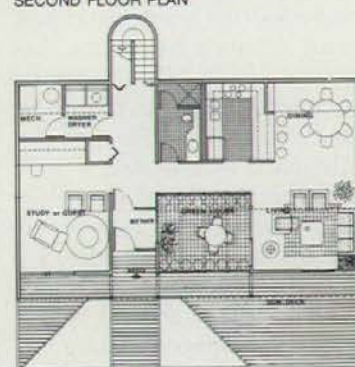
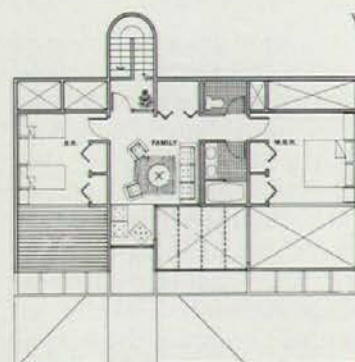
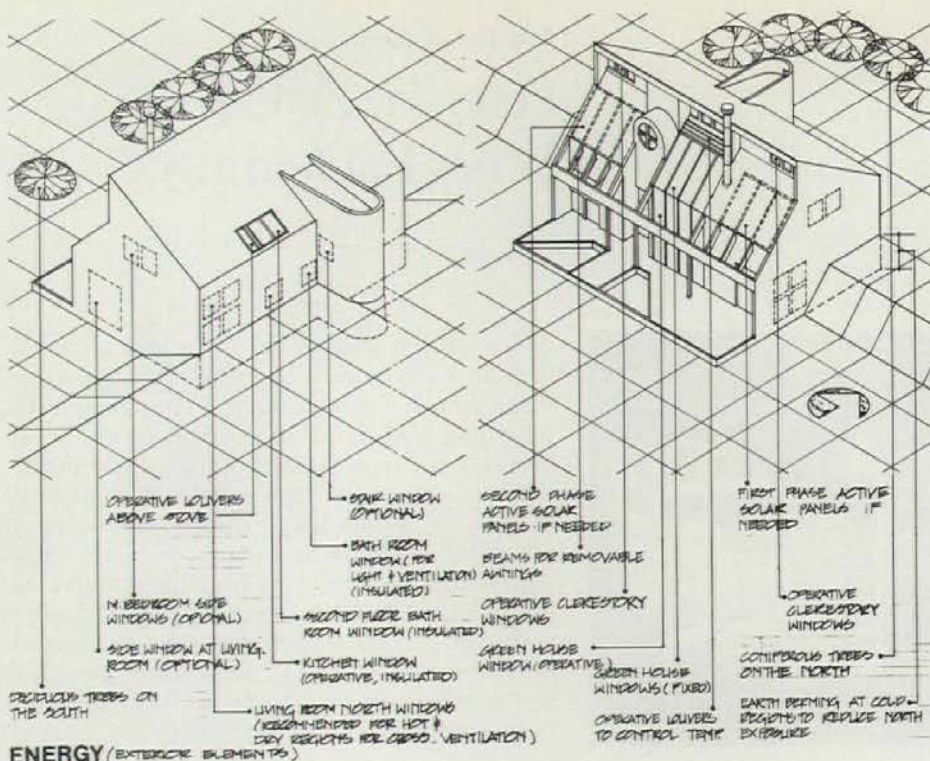
Jury comment

Murphy: A lot of thought has gone into what can be done in terms of siting, berming, air movement, and so forth. It is a lot of work in terms of directions the house could take, and I think that's commendable. One of the things that bother me is to see the family room upstairs tucked between two bedrooms. I think that's a misnomer. The forms are interesting, but my first impression is to be put off somewhat by the round stair snorkel; it seems a bit of an intrusion. It's not that I dislike the form inherently, it's just that it's in the wrong place. The end windows, too, are something of an affectation.

Fitch: It has got a nice exterior look to it, and a lot of time went into the concept and the plans. But it looks to be a fairly expensive 1500 feet to build.

Richardson: Starting with the site, it seems to have a lot of possibilities for flexibility; entrances and garage locations are very flexible. I like the form of the house and the shapes. It is really predicated on the greenhouse; that is the focal point of the interior. I think I agree with Jim in that I would like to see some other treatment of the stairway window, simplifying the form. It is a little tricky. Basically, it is a nice house.

Haupt: I like the forms; it is kind of a fun house aesthetically. I like the airlock, something not too many of the submissions had. I think that with all that glazing, the greenhouse could possibly produce too much heat in the summer. That would be something to watch out for. I too found the family room upstairs confusing.



Keith Donoghue

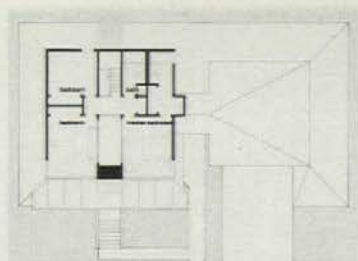
Inverness, Ca

Jury comment

Richardson: I like this little house, it just appeals to me. The entry is weak, however; coming into a dark enclosed entry, you have to go down a stair and a hallway before you get to an open space. The walls should be opened up between the entry and the living room, something that could be done in an interesting manner. I like the fact that it has a utility room, something that has been lacking in many of the schemes. I think the opportunity is there to play around with the bath in the master bedroom area, to get a glamour bath there and maybe a second one.

Murphy: The solarium space is potentially a usable space and possibly could be integrated into the living area.

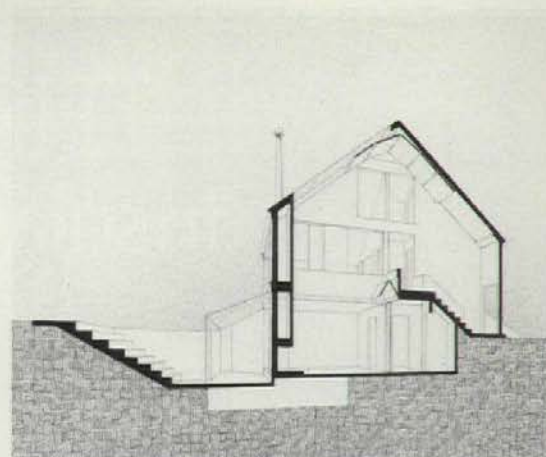
Richardson: It looks a little bit attached, or applied. The house works, but I also question the walk with the grand stairway. Walking up to this house you'd get confused as to where the front door was.



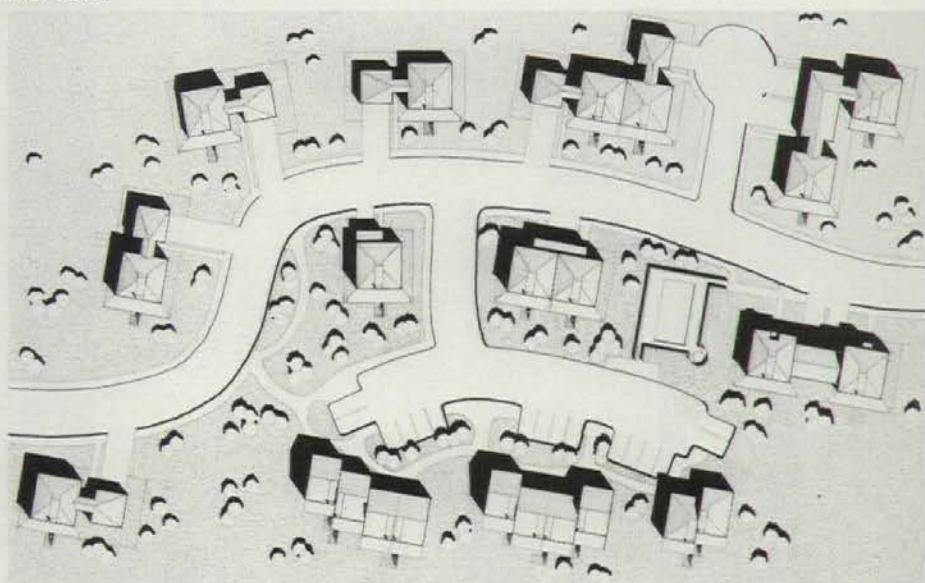
SECOND FLOOR



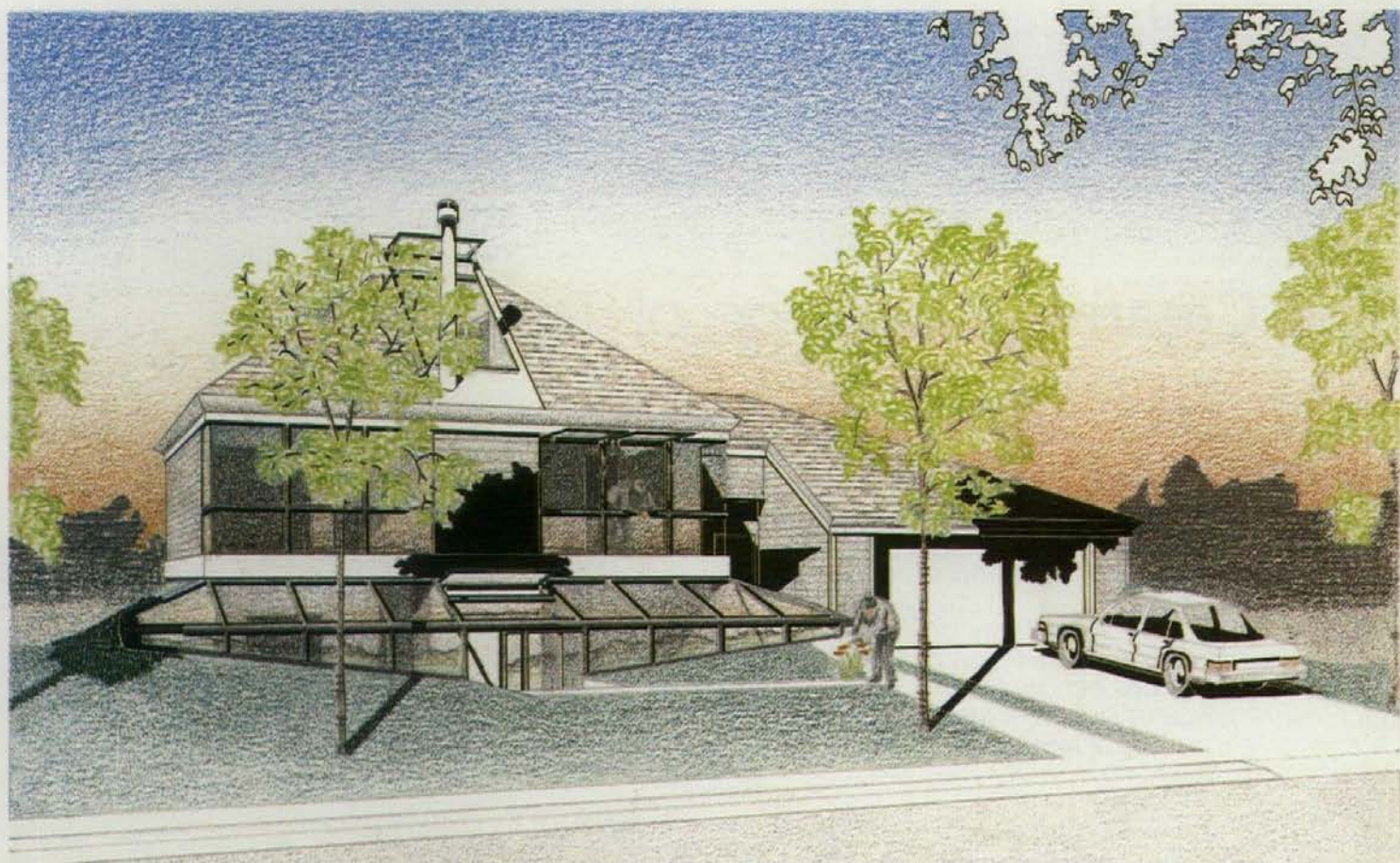
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PERSPECTIVE SECTION



SITE PLAN



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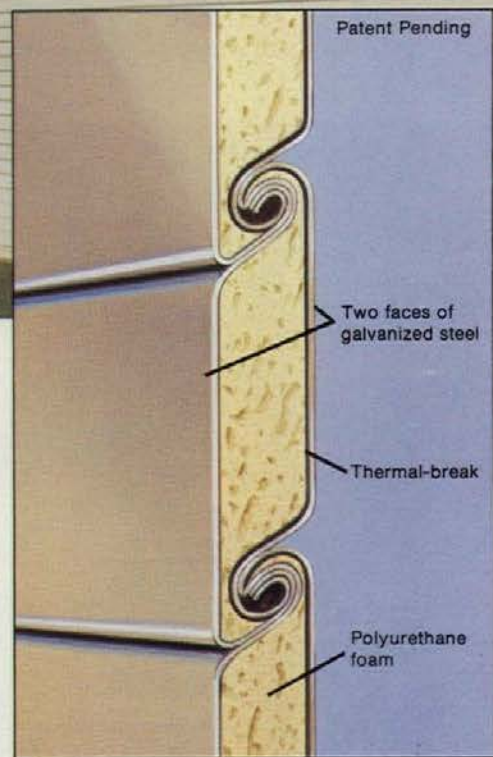
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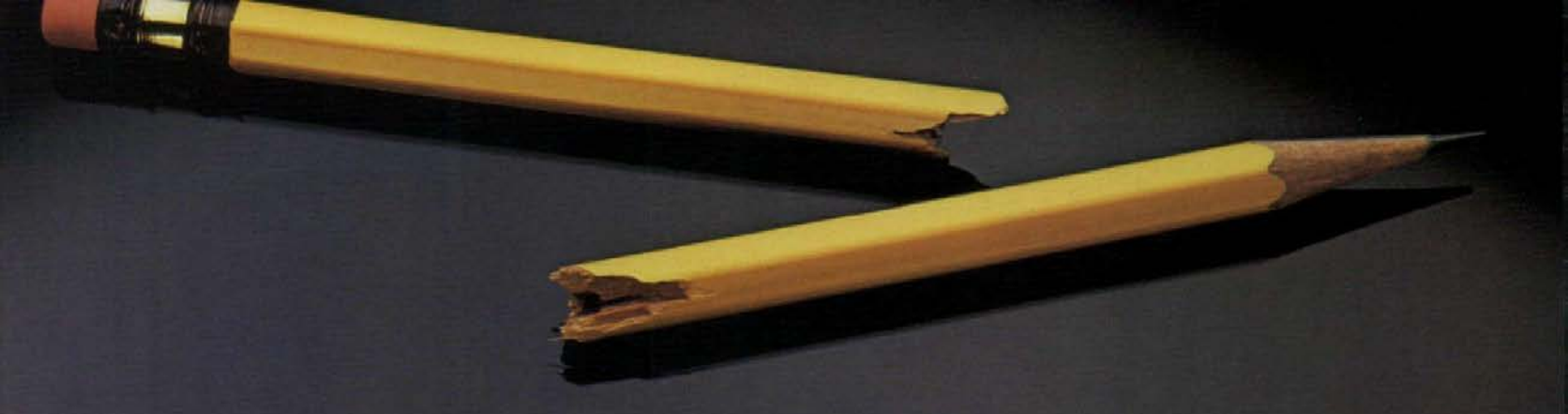
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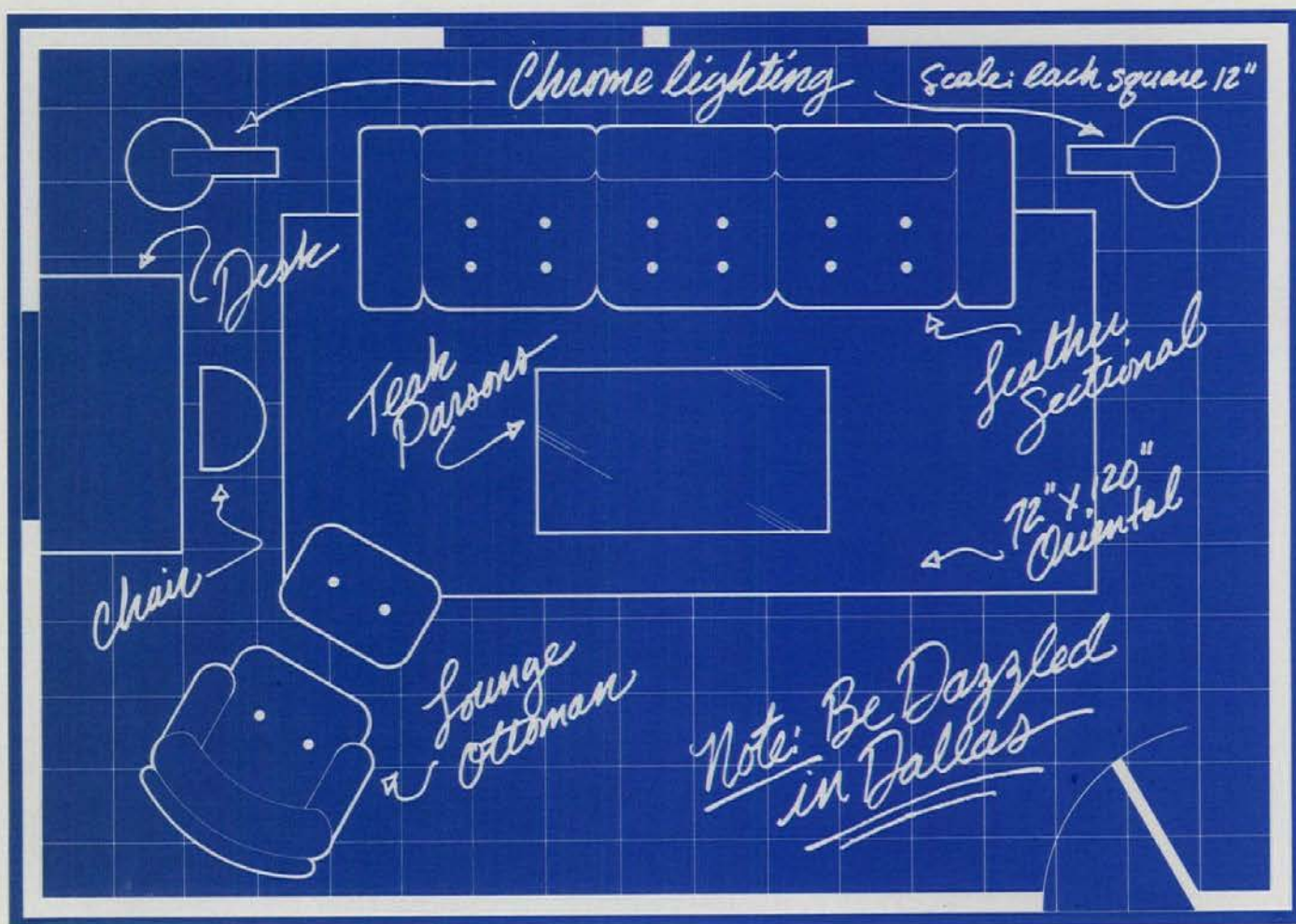
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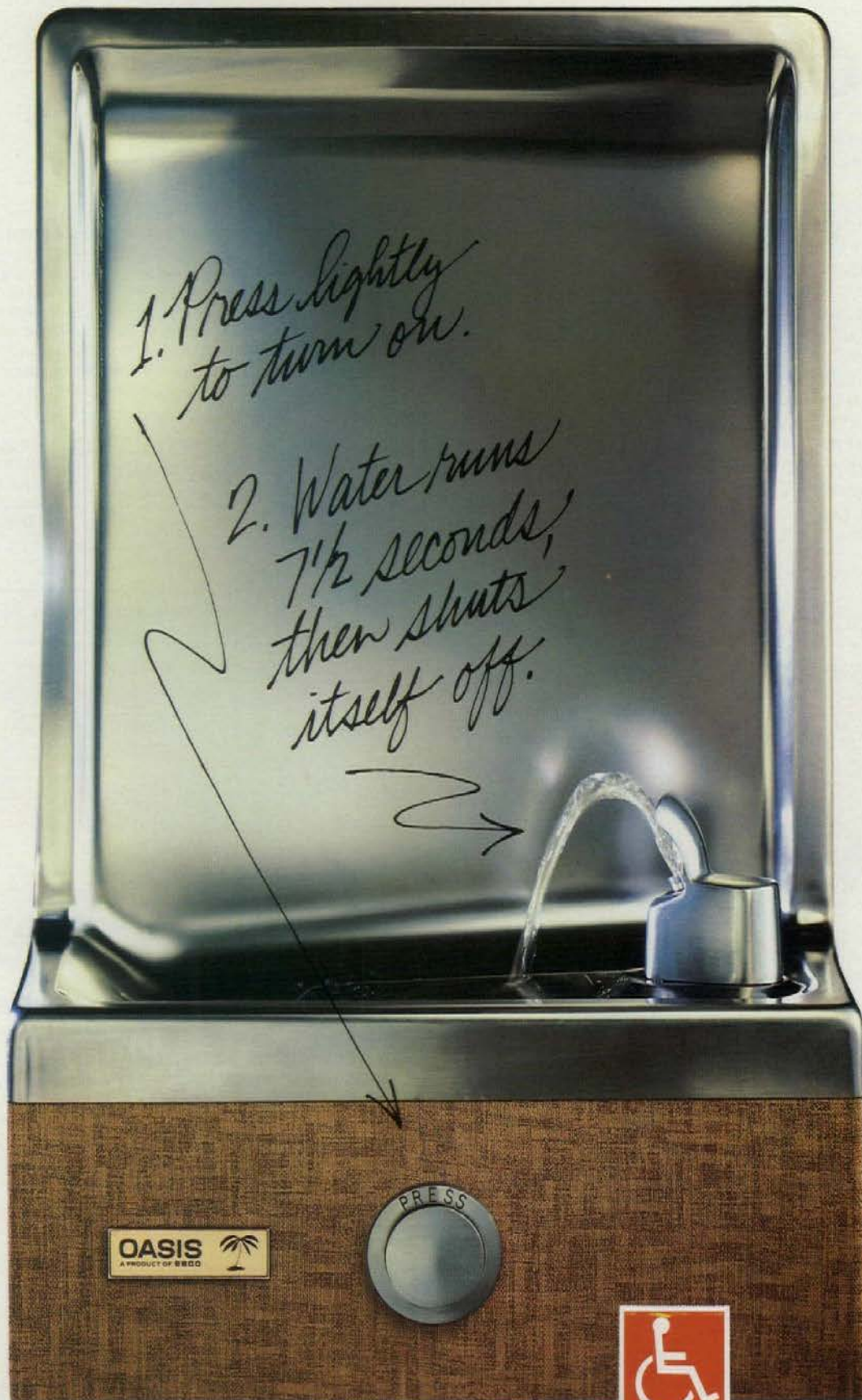
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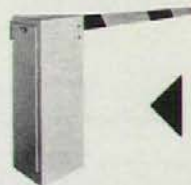
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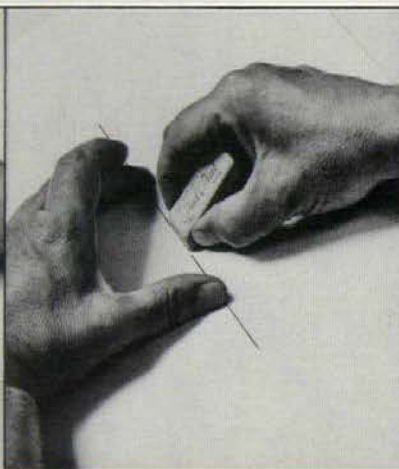
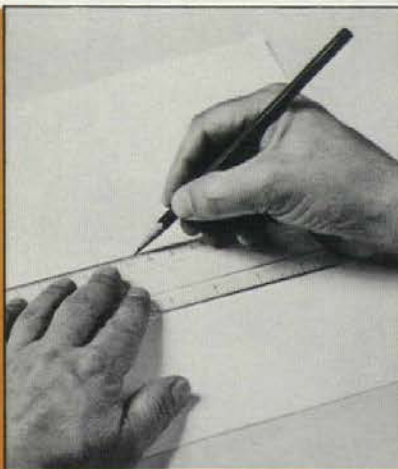
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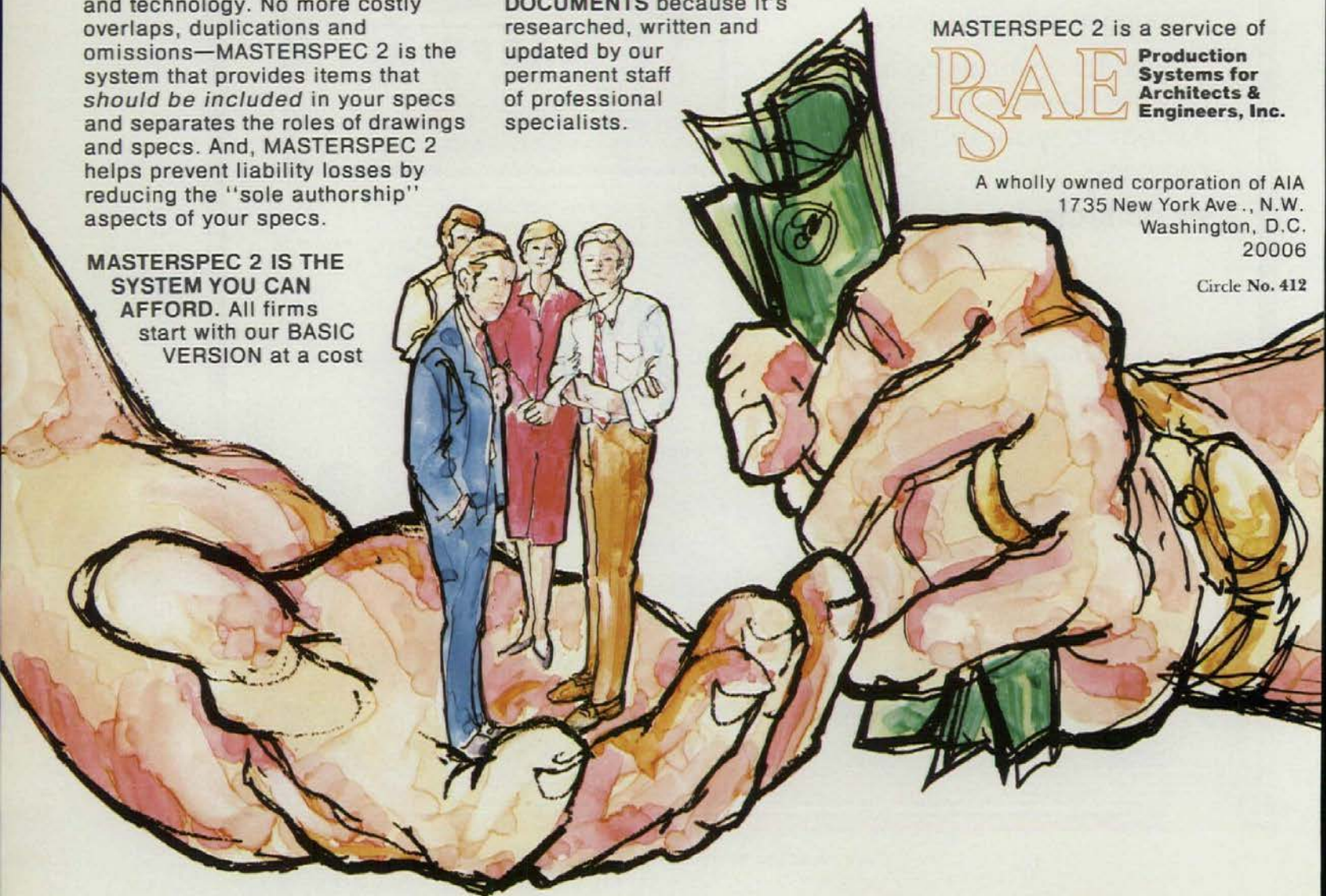
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Circle No. 412



Curtain wall performance specifications

Paralleling the evolution of metal curtain wall technology from individual window units to sophisticated building enclosures, curtain wall specifications have become increasingly complex.

Once upon a time most curtain wall construction was bid and built from relatively simple proprietary specifications and, during the "architect-knows-best" period, descriptive specifications. There is nothing basically wrong with either of these approaches. Use of a manufacturer's model or series number may be sufficient to describe a desired system. A competitive spec may not be necessary. If the architect still knows best and is able to accept responsibility for its proper functioning, the curtain wall may be detailed and specified down to the last nut and bolt.

But for most large curtain wall installations, particularly on high-rise buildings, specifiers are moving toward greater use of limited performance specifications. The curtain wall manufacturer thereby becomes responsible for designing the system to meet certain performance requirements, and the architect retains control over profiles, materials, and finishes.

A primary reason for the expanded use of performance specs has been the development and promotion of reliable criteria and test methods by the curtain wall industry. The first standards were published 20 years ago by the National Association of Architectural Metal Manufacturers. Its 1968 edition of "Metal Curtain Wall Specifications Manual" was superseded in 1976, however, by related publications of the Architectural Aluminum Manufacturers Association. Then and now, the AAMA standards reflect the predominance of aluminum curtain wall construction over other metals. Since 1970, the American Society for Testing and Materials has developed related curtain wall test methods.

The effectiveness of any performance specification depends on three factors: a clear scope of included (and excluded) work, a precise statement of performance criteria, and a complete description of test methods for determining compliance with the required performance criteria. Testing is usually done on a mockup at the manufacturer's plant or at an independent testing laboratory prior to production of components.

Design loading must be specified as the basis for testing and may come straight from the building code. It can be expressed as a uniform design wind pressure loading or may incorporate the results of wind tunnel testing on a model of the building. Calculated slab edge deflections and projected changes in floor elevations due to shortening should also be a part of the design information.

Criteria for structural performance of the system are found in the AAMA guide specifications and must be incorporated into the project documents. Limits are stipulated for deflection of framing members and thin metal panels, both based on testing in accordance with ASTM E 330-70. (Note: the latest

revision of E 330 is 1979.) The guide specs also stipulate that there shall be no glass breakage, permanent damage to fasteners, or excessive reduction of glass bite under design loads. The fabricator is responsible for determining proper thickness of metal and glass.

Specific standards for water penetration are more reasonable, and therefore more enforceable, than the nebulous requirement that a curtain wall "shall be watertight" or "shall not leak." In its guide specifications, AAMA uses the term "no uncontrolled water penetration," which is also nebulous until coupled with testing mandates. ASTM E 331-70 describes tests for water penetration of fixed parts of the system using static pressure methods. AAMA TM-1-76 refers to the same ASTM standard for description of test specimens, equipment, and reports but is based on dynamic pressure loading. Criteria for operable aluminum windows are described in ANSI A 134.1-1972.

Air leakage through fixed portions of the curtain wall is limited to 0.06 cfm per sq ft by the AAMA guide specifications. The referenced test method is ASTM E 283-73. Maximum air leakage for aluminum windows is established in ANSI A 134.1-1972.

In other areas, the AAMA guide specs are less helpful. Although ASTM test methods for thermal transmittance and fire resistance of the curtain wall system are referenced, no suggested performance criteria are offered. These are usually determined by code or building design. Allowance for thermal movement is expressed only in terms of temperature range. Light transmittance and sound transmission values are left to the designer's discretion. Condensation control is not discussed, except to require removal of moisture occurring within the wall system. No mention is made of the effect of drapery pockets and shading on glass design.

Some curtain wall materials, which can otherwise be specified by reference standards, thereby becoming part of the overall performance requirements, may be selected by the architect. Sealants, glass, and finishes are good examples. Proprietary specifications for those materials are appropriate.

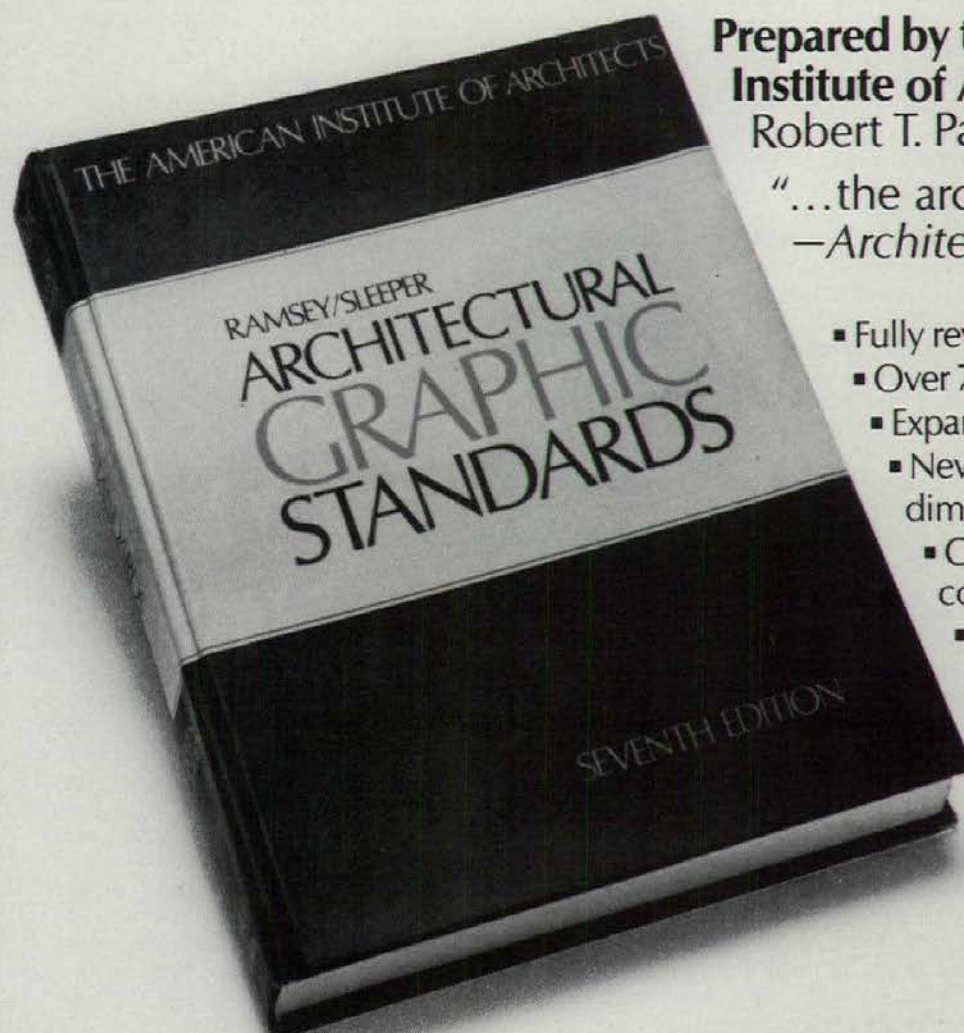
Placing responsibility for all portions of the curtain wall work under a single contract or subcontract simplifies coordination of mockup preparation, testing, and shop drawing review. It also lodges ultimate liability for performance of the curtain wall system in a single legal entity. □

William T. Lohmann, AIA, FCSI, is Specifications Manager for C.F. Murphy Associates, Chicago.

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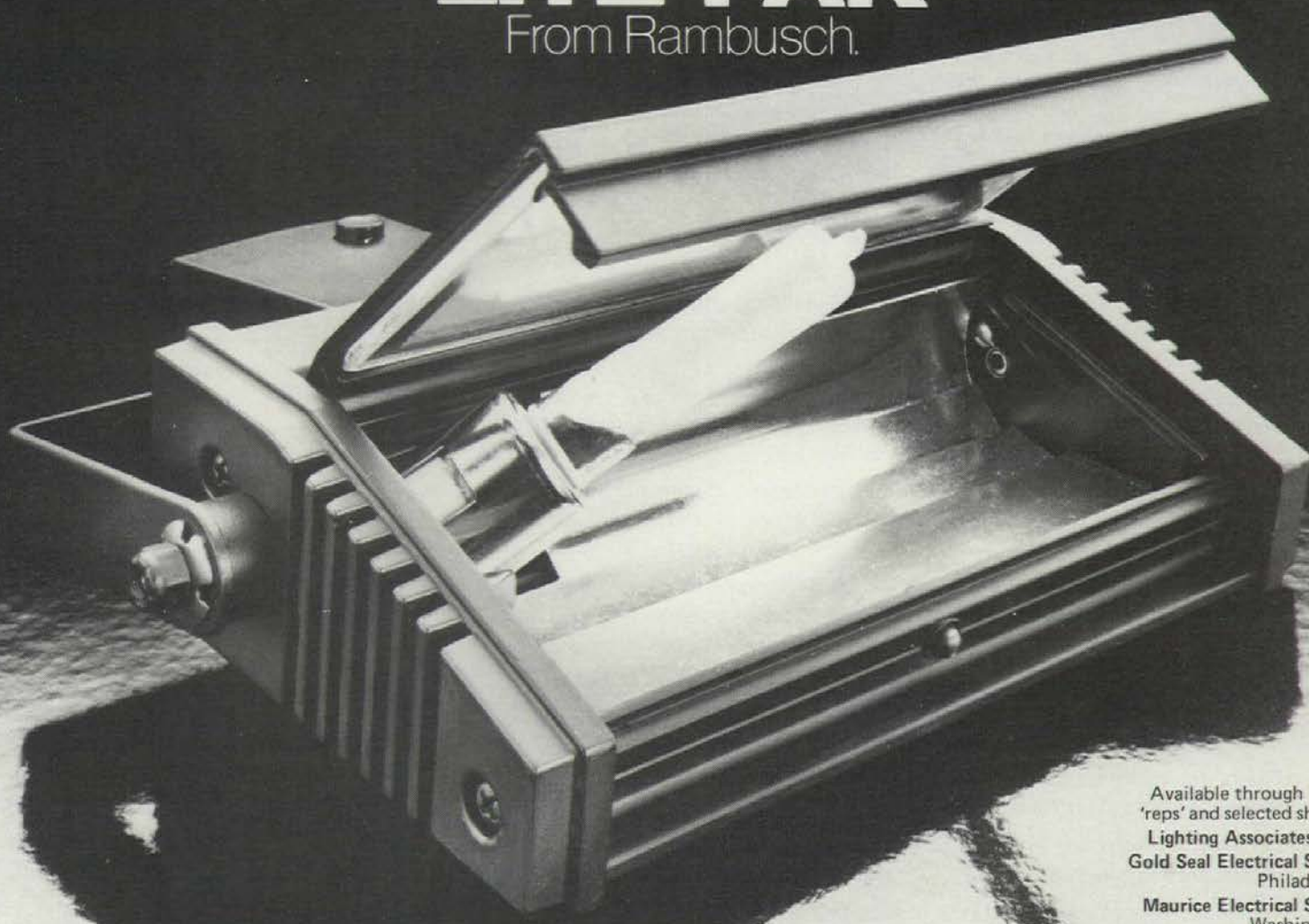
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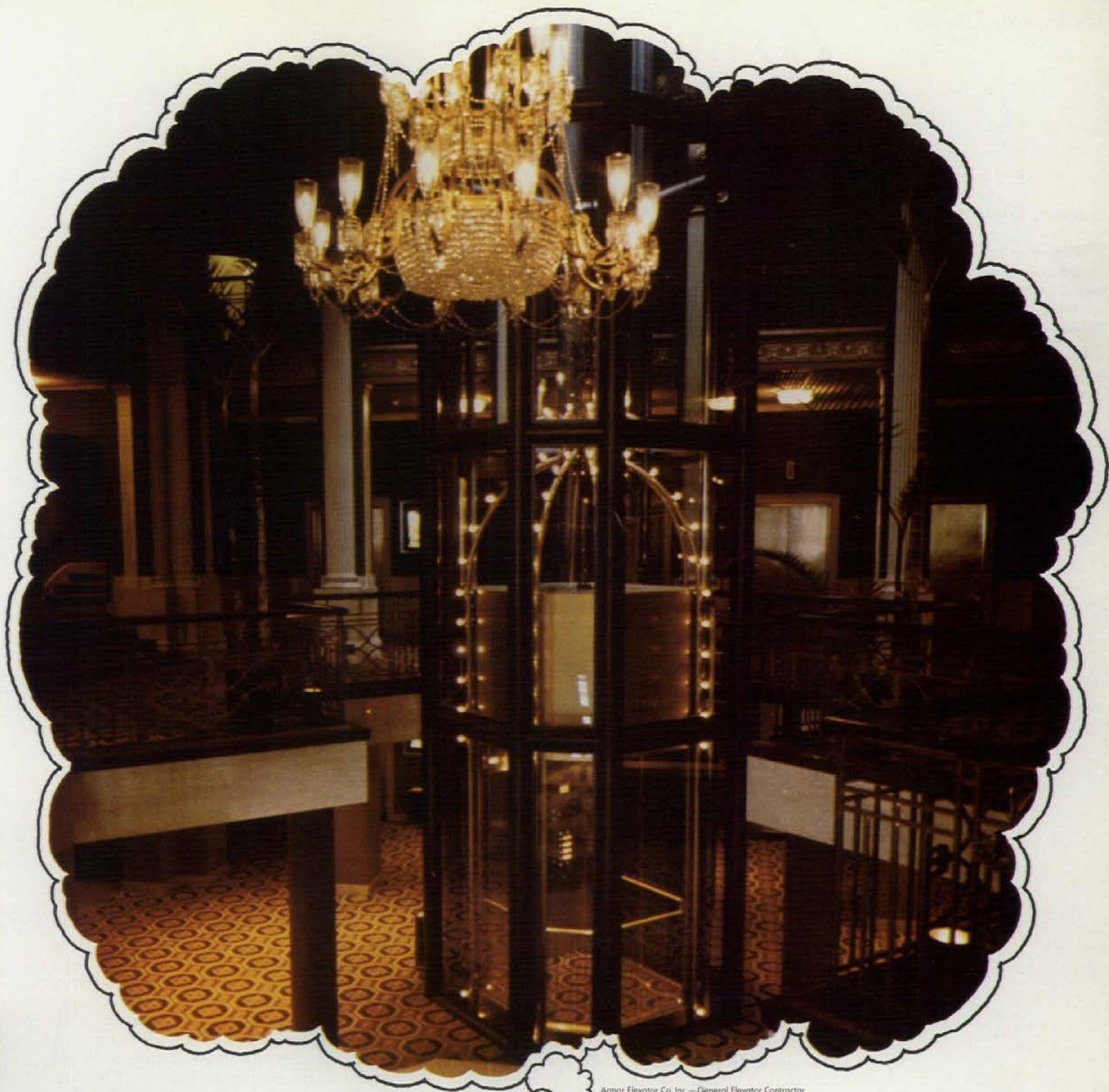
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Zoning affects condemnation award

Norman Coplan

The value of real property condemned for public use is usually based on its zoning district, unless the validity of zoning can be challenged.

The value of real property that is condemned for public use is usually measured within the parameters of those uses which are permissible for that property under the zoning regulations as of the time of condemnation. However, if there was a reasonable probability of a rezoning that would expand the permissible uses, the courts will generally increase the amount of the condemnation award to reflect a higher value based upon the probability of such change in zoning. A different issue is presented, however, where there was no reasonable probability of a change in zoning through legislative action, but there was a reasonable probability that, as of the time of condemnation, the zoning ordinance would have been invalidated by court action if its validity had been challenged. The legal rule in respect to the valuation of property under such circumstances has not been judicially settled.

The question of whether an award in condemnation should include an increment in the value of property, premised upon the contention that there was a reasonable probability that the courts would have invalidated a restrictive zoning as applied to that property, was recently considered by the New York Court of Appeals in the *Matter of the Town of Islip*, 49 N.Y.2d 354. The town involved in this case had acquired through condemnation undeveloped land that had been restrictively zoned residential under the town zoning ordinance. The trial court found that the property in question was unsuitable for residential use and awarded the claimants an increment above and in addition to the residential value of the property. An appeal was taken from this award.

The property in question was slightly larger than an acre and completely surrounded by public thoroughfares. The shape of the property was long, narrow, and irregular, and the zoning for the adjacent property was mixed residential and business. At the trial, experts on behalf of the claimants testified that the property was best suited for commercial development and that its peculiar location, size, and shape made it unsuitable for residential use. In their opinion, these factors created a reasonable probability that the property would be rezoned. The town, on the other hand, introduced proof that it had consistently refused to "down zone" other property in the area and submitted a plan for residential development of the property which it contended would satisfy the residential zoning requirement. The trial court found that since the property was located on a small, semi-elliptical-shaped "island," which only could accommodate homes of small size with little, if any, rear yards, the property was unsuitable for residential use. The trial court further found that although there was no reasonable probability that the town would voluntarily rezone the property, the claimants might be able to obtain the same relief in a court action on the ground that the zoning deprived them of reasonable use of the

property. Accordingly, the court concluded that the claimants were entitled to an increment above the residential value of the property.

The Appellate Court, in affirming the award, stated:

"An owner whose property has been taken in condemnation is entitled to just compensation. . . . The measure generally is market value at the time of appropriation, that is, the price a willing buyer would have paid a willing seller for the property. . . . This appraisal should be based on the highest and best use of the property even though the owner may not have been utilizing the property to its fullest potential when it was taken by the public authority."

"Ordinarily the potential uses the court may consider in determining value are limited to those uses permitted by the zoning regulations at the time of taking. . . . When, however, there is a reasonable probability of rezoning, some adjustment must be made to the value of the property as zoned. An increment should be added to this amount if there is a reasonable probability of rezoning to a less restrictive category. . . ."

"Here, however, it was found that a court action would be necessary to remove the residential zoning restrictions. That prospect may, of course, seem less attractive than the probability that the town might grant an application to change the zone. Nevertheless, to a knowledgeable buyer, the probable invalidity of zoning restrictions, which would otherwise prohibit valuable uses, should enhance the market value of the property to some extent. Thus if it was demonstrated that there was a reasonable probability that a challenge to the zoning regulations could succeed in court, it would be appropriate to grant the claimants some increment above the residential value."

The town, although conceding that the probability of the zoning restriction being vulnerable to a constitutional challenge was a valid factor, argued that in considering whether such an action would have been successful, the trial court must make such findings of fact as would have been made by a court actually determining the constitutional invalidity of the zoning ordinance. The Appellate Court pointed out, however, that there was a finding of fact that the property was "unsuitable for residential use," that it had commercial value but little or no value as a residential plot, and that a change in zoning would not be out of harmony with the surrounding area. Such a finding, stated the Court, was sufficient to conclude that a constitutional challenge to the same ordinance as applied to a similarly situated property would have at least a reasonable probability of success in court. Such a finding of reasonable probability was sufficient to support the conclusion of the trial court that the claimants were entitled to a valuation in excess of the value of the property for residential purposes only. □

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Friday Merchandising: Its Impact and Influence on the Designer presented by Richard Marcus Chairman of the Board Neiman Marcus. **90 Years in 90 Minutes:** A multi-projector presentation of L.A.'s interior and architectural design history presented by Jody Greenwald ASID IDEC Coordinator Design Programs UCLA. **The Office in Transition:** A PDC TWO presentation on technological developments that are reshaping the office of the future. **The Commuter Ticket Promenade:** A special walk through PDC showroom events while entering a drawing to win an expense paid vacation for two in Acapulco.

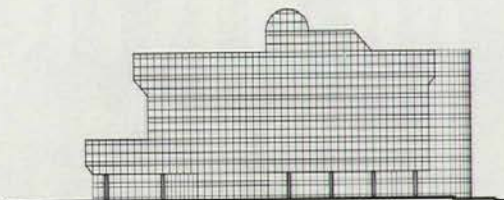
Saturday Your Turn - My turn: A presentation by PDC TWO (the Second Floor Contract Furnishings Association). A day of dialogue with internationally recognized designers who have influenced our office, health care, industrial, residential environments. **Computer Graphics and Design in the Eighties. Computer Graphics and Return on Investment. Computer Graphics and Human Creativity.** A full day of seminars featuring Charles M. Eastman Director Institute of Building Sciences Carnegie Mellon, Robert Parfet Vice-President Computer Graphics SLS Environetics, Donald R. Fullenwider Principal Architecture Computer Group Albert C. Martin & Assoc., Charles Reeder Partner Computer-Aided Design Group. Starring **The Interactive Graphic Computer** a fully operative display housed in the rotunda of PDC's Grand Mall featuring equipment from Evans & Sutherland, Applicon and Auto-trol. **Glossary:** An introduction to computer language a film by Charles Eames. **Chicago:** A computer simulated flight through downtown Chicago produced by William Kovacs of Robert Able & Assoc. **Hollywood Cabaret:** A dramatic celebration of Hollywood's Golden Era. Music, Dancing, Buffet, Show, Film Clips from famous movies and the drawing for the **Lucky Commuter**.

Sunday The Great American Yankee Band: A band concert in celebration of **Los Angeles Bicentennial** and PDC's **5th Birthday** followed by a presentation of the **Otis Parsons Scholarship Award. Cities of the Future:** A lecture/slide presentation followed by a dialogue with Paolo Soleri creator/founder of Arcosanti. **All That Jazz:** A musical fashion review, the costumes, music, dances of Hollywood's Golden Era.

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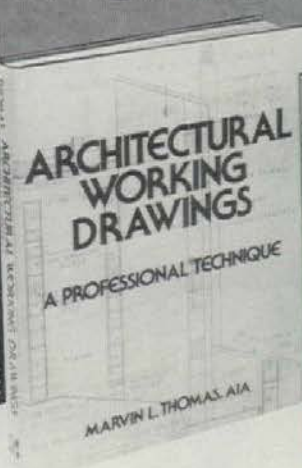
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023/14X Pub. Pr., \$23.95 Club Pr., \$16.75

EARTH-SHELTERED HOUSING DESIGN Guidelines, Examples, and References By The Underground Space Center, University of Minnesota. 318 pp., 207 illus. A truly fascinating look at an architectural idea whose time has come! Using floor plans and photographs of 17 existing homes, this first-of-its-kind guide examines the energy, economic, engineering, and environmental aspects of houses which use the earth itself as a design element. Every important topic is covered: site planning, architectural design, energy use, structural design, waterproofing, insulation, and much more. Packed with ideas you can also incorporate into designs for conventional homes.
787/832 Pub. Pr., \$17.95 Club Pr., \$14.95

APPRENTICE TO GENIUS: Years with Frank Lloyd Wright By E. Tafel. 228 pp., 98 full-color photographs, 278 black-and-white photographs, plans, and drawings, outsized 8 3/4 x 11 1/4 format. A fascinating study by an early Taliesin protégé, this is the first book to portray America's greatest architect at close range. It covers his entire career, providing a complete picture of the many moods of Wright the man, the tenderness hidden behind the strictness of Wright the teacher, and the wellsprings of the creative power of Wright the architect.
628/158 Pub. Pr., \$21.95 Club Pr., \$15.95

PLACES FOR PEOPLE: Hotels, Motels, Restaurants, Bars, Clubs, Community Recreation Facilities, Camps, Parks, Playgrounds, and Playgrounds Edited by J. M. Davern. 244 pp., 679 illus., outsized 9 x 12 format. Lavishly illustrated with photographs, drawings, and floor plans, this book features some of the most striking architecture of recent years. Contains 28 case studies of outstanding hostilities, 16 studies of restaurants, bars, country and golf clubs, and 16 studies of innovative, successful facilities for recreation and leisure pursuits.
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RELIGIOUS BUILDINGS By the Editors of *Architectural Record Magazine*. 177 pp., 280 photographs, 140 plans, drawings, elevations, and sections, outsized 9 x 12 format. This magnificent volume brings you 52 houses of worship and other religious structures which were originally selected to appear in *Architectural Record* for their distinction and uniqueness. Provides an excellent overview of where contemporary religious architecture is going as well as a wealth of ideas and solutions to design problems.
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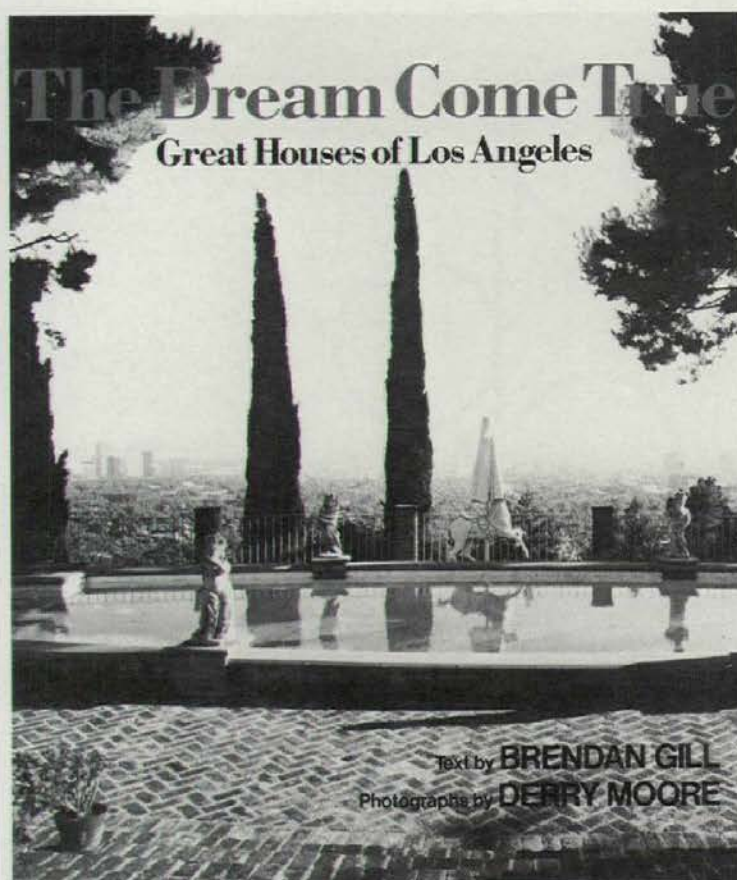


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The Dream Come True: Great Houses of Los Angeles with text by Brendan Gill, photos by Derry Moore. New York, Lippincott & Crowell, 1980. 216 pp., \$40.

This lavishly illustrated tour through the great houses of Los Angeles, led by the witty and incisive *New Yorker* critic and architecture aficionado Brendan Gill, is highlighted by 73 color and 170 black and white photos. The houses and grounds shown here are notable in some cases for their designers and in others for their residents and the style in which they live. In his own inimitable style, the author leads the reader from secret canyon to high hill, from the fabulous and stunning to the weird and offbeat, from the luxurious and now rare turn-of-the-century Queen Anne houses to the treasured mansions of the 1920s and the acres of pillared and latticed bungalows lining seemingly endless avenues and boulevards. In this array of both well-known and rarely seen domiciles, the works of many distinguished architects are also included, such as F.L. and Lloyd Wright, the Greene brothers, Neutra, Eames, Ain, Ellwood, Schindler, and the

[Books continued on page 212]

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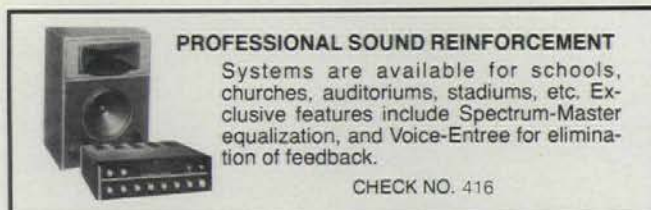
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Books continued from page 208

contemporaries Gehry, Lautner, and de Bretteville. One of the treasured surprises of the book is the magnificent Moderne villa set designer Cedric Gibbons designed for his famous movie-star wife Dolores Del Rio. The house is in a perfect state of preservation today, and the eight pages devoted to it in the book are equaled only by those for Wright's Ennis house. These are more than Zsa Zsa in peek-a-boo peignoir gets, or a full-bodied Rae Eames contemplating stuffed bird on floor gets, but the author was, nevertheless, correct in his allocations, and the former entries alone practically justify the whole cost of the book.

California Design: 1910 edited by Timothy J. Andersen, Eudorah M. Moore, and Robert W. Winter: photographer, Morley Baer. Santa Barbara and Salt Lake City, Peregrine Smith, Inc. 1980, 144 pp., \$11.95.

This beautifully printed and profusely illustrated paperback volume is actually the second printing of a catalog for an exhibition held in Pasadena in 1974. The intent of the exhibition was to make a broad survey of the creative expressions in California roughly between 1895 and World War I, the germinal period of cultural consolidation within the state. At this time the influence of the international Arts and Crafts movement had reached the coast, and this exhibition documented how the forms and values of the movement were influenced and changed by the nature and surroundings of the Californians. Painting, printing, poetry, ceramics, metalwork, household furniture, and architecture are all represented, and among the latter, works discussed by well-known architectural historians and authorities include those by Greene and Greene, Irving Gill, Ernest Coxhead, Bernard Maybeck, and Julia Morgan.

MATHEWS

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Mathews: Masterpieces of the California Decorative Style by Harvey Jones. Santa Barbara and Salt Lake City, Peregrine Smith, Inc., 1980, 124 pp., \$24.95.

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ANACONDA Aluminum
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New independent tests prove:
**Halsey Taylor is the most
energy-efficient water cooler
you can specify.**



ETL Testing Laboratories, Inc., Cortland, NY, an independent research and testing lab, recently evaluated comparable models of the four leading water coolers.* Each was purchased from distributors' stocks without prior adjustment. Three water coolers were found to be far less energy efficient than the new generation Halsey Taylor. Oasis used 28% more energy. Elkay used 41% more energy, and the Sunroc unit actually used 92% more energy than Halsey Taylor.

For your energy-conscious clients that translates into substantial savings in life cycle costs.

Ask your Halsey Taylor representative, or write for a copy of ETL's Report and our calculations from Energy Department, Halsey Taylor, Route 75, Freeport, IL 61032.

It's a waste of energy specifying anything but . . .

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KING-SEELEY THERMOS CO.
ROUTE 75 FREEPORT ILLINOIS 61032

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the most energy
efficient of all!



Based on ETL test results using ARI standard #1010-78 for schools, hospitals, and offices (40 hours per week usage). Four comparable units were tested: Oasis ODP7M, Elkay EWA-8, Sunroc NSW-8, and Halsey Taylor WM8A1.

BUY OR SPECIFY

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ELIASON® Easy Swing® DOORS

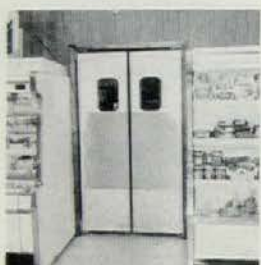
Self Closing - Double Action For Interior
SERVICE, TRAFFIC OR CONVENIENCE DOORWAYS



LWP 3: 6061-T6 Aluminum Alloy .063" thick, Satin Anodized finish, Std. Windows, Fasteners and Hinges included. Easy to install, easy to use. Useful for Patient Care, Food Service, Variety, Discount, Department Stores. Thousands used in Supermarkets.



LWP 4: Same as "LWP 3" except with decorative high pressure laminate both sides. Decorative doors are practical with protective accessories. Door illustrated has 24" high Base Plates and two sets of Bumper Strips.



SCP 5: A Solid Core Door 3/4" thick. Illustrated door has Anodized Aluminum. Top Panels, 18 gauge steel center panels (SS front, Galv. rear). 14 gauge high carbon steel kick plates. Write for options and other Solid Core Door models. Applications same as "LWP 3", a heavier door but same easy action.

SCP 8: A Solid Core decor door. Illustrated door has 18" high Base Plates and Edge Trim (18 gauge Stainless Steel). Decorative High Pressure Plastic Laminate above Base Plates to top of door both sides. For Food Service and other areas where Solid Core Decor doors desired. Write for other models and options.



SCG 1: Gasketed, Solid Core Door 3/4" thick. Illustrated door has Anodized Aluminum top Panels and 48" high 18 Gauge Stainless Steel Base Plates. For Refrigerated areas, Work Rooms, Processing and Cooler to Processing. Write for options and accessories. Ask about 1 1/2" thick Foam Core Doors.

The above illustrations represent just a few standard door models. All Easy Swing Doors are shipped complete ready to install. Write for your free door catalog today listing hundreds of options accessories and other models.

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CSI, NARGUS, NEHA AND FLORIDA REST. SHOW

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Books continued from page 212

preme Court in San Francisco, the Oakland Free Library, and the rotunda of the State Capitol in Sacramento), they formed The Furniture Shop in San Francisco to supply the demanding market for high quality furnishings, where they employed craftsmen and artists to effect the designs for tables, chairs, bureaus, and other furniture and interior items they created. Consequently, along with the painting, this volume contains numerous illustrations of the furniture, and it also shows the intricate color designs that Lucia applied to the objects. The book in general traces the history of their lives, covering the styles that influenced their work and showing their profound influence on the California culture of the time. Finally, the author, who is Curator of Art at Oakland Museum where most of the Mathews works are housed, connects their style with the nationwide Arts and Crafts movement of the early part of this century.



Photo: Wayne McCall

Third Santa Barbara County Courthouse, Wm. Mooser, 1929.

Santa Barbara Architecture: from Spanish Colonial to Modern, with photography by Wayne McCall, text by Herb Andree and Noel Young, and introduction by David Gebhard. Santa Barbara, Capra Press, 2nd Ed., 1980, \$60.

Traditionally recognized as one of America's most beautiful cities, Santa Barbara is given its just due in this large format book of very handsome black and white photographs. It traces the history of the city from the 1780s to the present, and all of the important buildings are shown and documented with their addresses, dates of completion, and designers. Following an introduction by David Gebhard, each of the seven chapters of the book is introduced by the authors, and then each building shown is adequately captioned under its documentary information. Throughout the book, one is surprised to find work by so many nationally known practitioners, including the Coates, both Jr. and Sr., DMJM, Bertram Goodhue, Greene and Greene, Henry Hornbostel, Bernard Maybeck, Cliff May, Adison Mizner, MLTW, Julia Morgan, Richard Neutra, Lulah Maria Riggs, Stanford White, and Frank Lloyd Wright.



Westminster

JG

Westminster Auditorium Seating
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Kimbell Art Museum
Fort Worth, Texas
Architect: Louis I. Kahn
Brochure available on request

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A Division of
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Circle No. 386

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The saving starts by delivering water in a spray pattern rather than a solid stream; a pattern that allows the Washfountain to handle more hands

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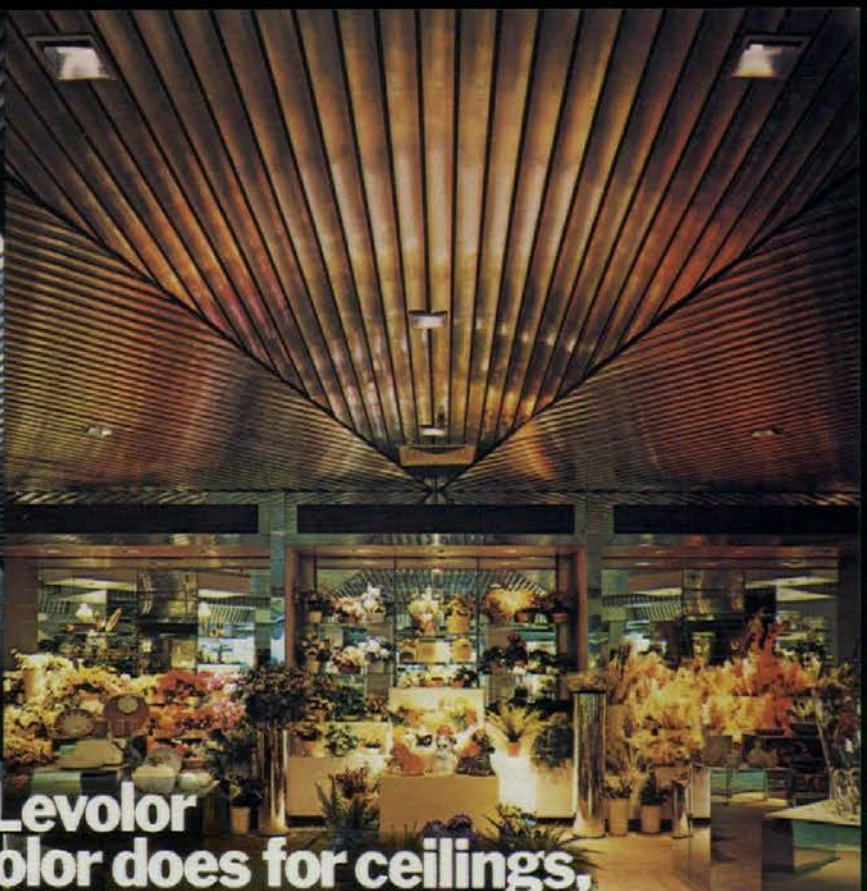
Bradley Washfountains also cut installation costs by as much as 30%... save an average of 25% in floor space. And cleaning one Washfountain instead of multiple lavatories cuts costly maintenance time.

Find out exactly how much of a savings a Washfountain can hand you. Contact your Bradley representative or write: Bradley Corporation, 9101 Fountain Blvd., Menomonee Falls, WI 53051. Look for our catalog in Sweet's File Section 15.7/Br.

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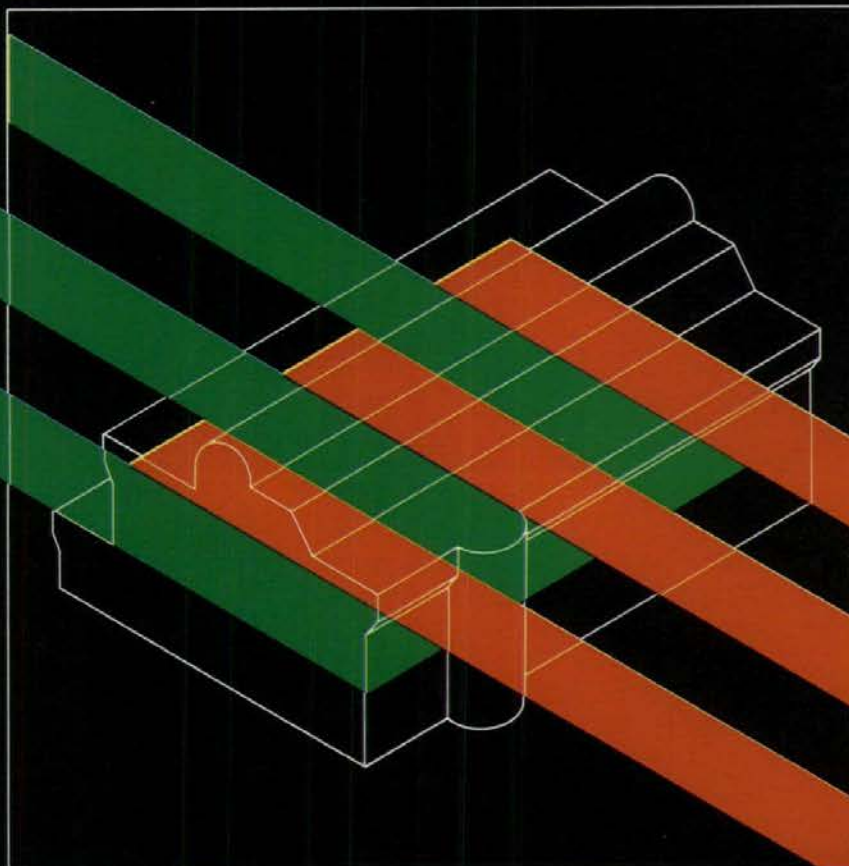
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About Design

YOUR TURN MY TURN

A Highlight of West Week
Los Angeles Pacific Design Center
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The system has been engineered to assure **structural soundness** and railings can be designed easily to meet specific codes and standards, including requirements of accessibility for the handicapped.

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Request Bulletin 8091 on the Carlsrail™ handrailing system or see Sweet's General Building or Industrial Construction files.

Carlsrail™ SYSTEMS

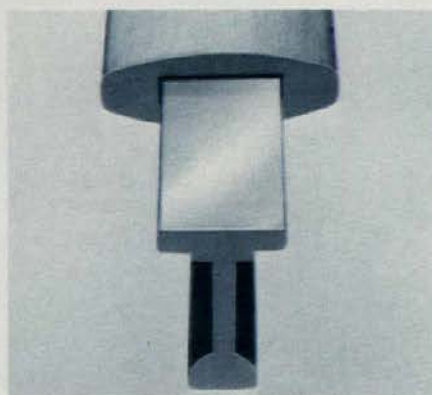
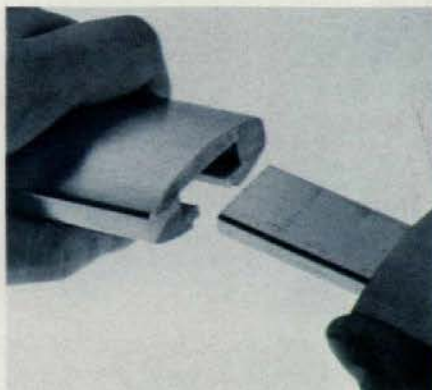
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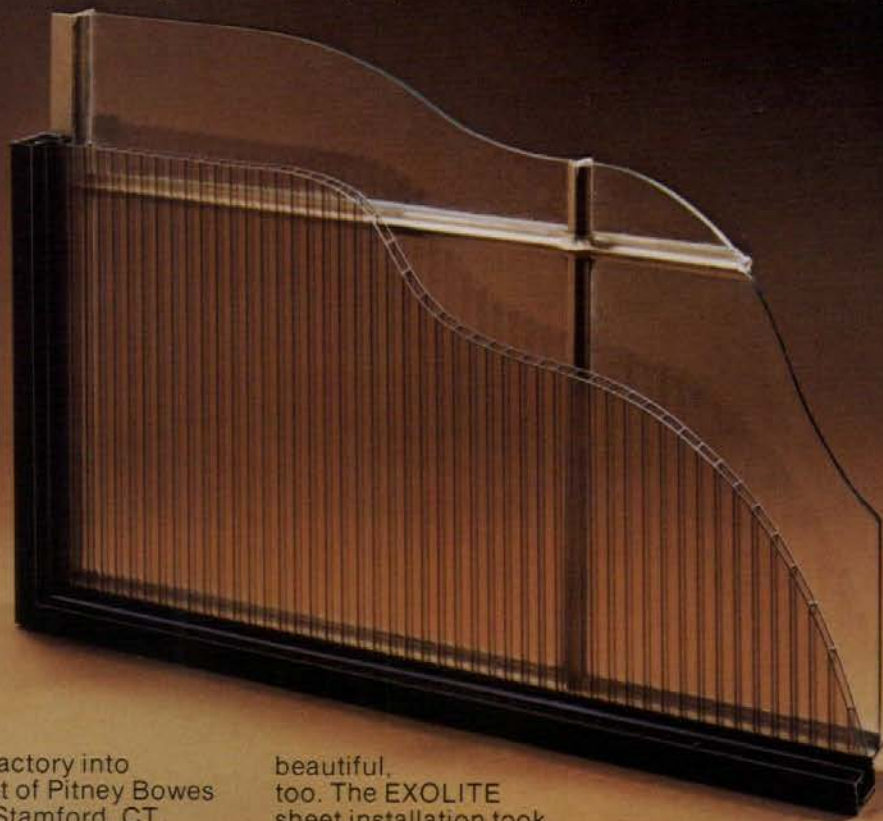
THE DIFFERENCE IS LIKE NIGHT AND DAY.



Before. When the cost of energy started to soar, complaints about cold were second only to those about heating costs. Something had to be done, quickly.



After. Installing EXOLITE™ double skinned sheet inside existing windows cut heat loss drastically, stopped complaints even on the coldest winter days.



Converting a factory into offices left a lot of Pitney Bowes employees in Stamford, CT, complaining about drafts and the cold.

When EXOLITE double skinned acrylic sheet was installed over existing windows the difference in the temperature was like night and day.

"Before EXOLITE sheet was installed, it was extremely difficult to maintain building temperature," explained Walt Westcott, manager — plant maintenance.

"Now the EXOLITE sheet eliminates drafts and looks

beautiful, too. The EXOLITE sheet installation took only three days, and shut-down of operations was avoided because the original window casements did not have to be removed."

EXOLITE sheet has an installed cost that is substantially less than many glazing alternatives. Available in clear or bronze, it installs quickly and easily, inside or outside the building.

With a U factor twice as good as single pane glass, EXOLITE sheet is the ideal reglazing

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How does Walt Westcott sum up the reglazing? "The results have been fabulous," says Walt. "The difference is like night and day."

For more information, call (201) 560-0485. Or write CY/RO Industries, 697 Route 46, Clifton, NJ 07015.

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INDUSTRIES

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This rigid testing ritual is the reason Gafglas Ply 4 has actually exceeded ASTM specification D2178 and UL requirements.

In fact, all our glass built-up roofing products—from our glass vent-plys and standard base sheets to our ply and cap sheets—never leave our hands without being tested both on our roofs and in our labs.

What's more, when you specify GAF Built-Up Roofing products, our highly trained team of experts are at your disposal for technical assistance as well as in-put for job specifications.

So next time you need a glass plysheet, or any glass built-up roofing product, put Gafglas to the test.

Heaven knows we have.

GAF **GAFGLAS™**
BUILT-UP ROOFING PRODUCTS

ALL YOUR BUILT-UP ROOFING NEEDS ARE UNDER ONE ROOF.

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Products and literature

Products

Mezzanine plank grating in a flattened rung design with slotted interlocking side panels provides greater walking comfort and smoother wheeling. Made from corrosion-resistant galvanized steel, the grating requires no coating. The slotted design allows free passage of heated or cooled air and water from sprinkler systems in the event of fire. The flooring comes in 6-, 9-, and 12-in. widths in lengths up to 20 ft. McNichols. *Circle 100 on reader service card*

Unit kitchens, 30 in. wide, combine four basic elements: 6 cu ft refrigerator, two-burner gas or electric range, 15" x 18" sink, and a storage cabinet. Larger models, up to 72 in., have options such as garbage disposers and range hoods. Color choice includes gold, white, almond, and woodgrain vinyl-clad steel. Acme National Refrigeration Co., Inc. *Circle 101 on reader service card*

An inclined stairlift capable of carrying a person in a wheelchair or a seat can be installed in most staircases, including straight, curved, and spiral. It will ascend three flights of stairs—even those with intermediate landings. When not in use, the stairlift can be folded flat. The inclined lift provides accessibility to upper floors where an elevator would be impractical, and the manufacturer says it can be installed with little, if any, modification to the stair. Garaventa (Canada), Ltd. *Circle 102 on reader service card*

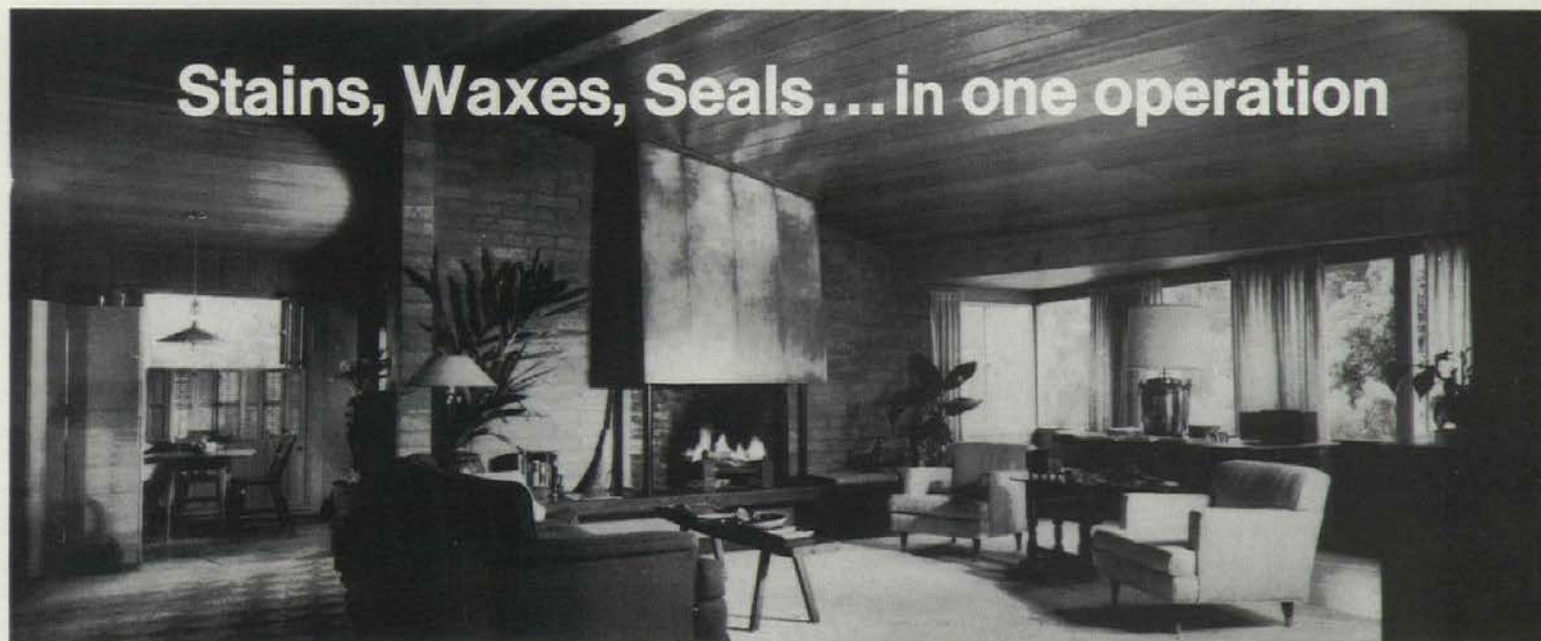
Hampton series office and executive conference chairs have extra cushion rolls at the top of the back and the front edge of the seat for added comfort. Options include fully enclosed arm, padded or unpadded open arm, or armless styles. Five-leg bases are swivel-tilt or swivel only on casters; free swivel, return swivel, or nonswivel on glides. Vecta Contract. *Circle 103 on reader service card*



Wood doorpulls are available in ten new designs in teak, Indian rosewood, oak, and Japanese beech. Teak and rosewood have a hand-rubbed penetrating wax finish; oak is impregnated with acrylic. Mounting hardware is oil-rubbed bronze, polished chromium, stainless steel, and black-finished aluminum or bronze. Forms & Surfaces. *Circle 104 on reader service card*

The Microx document processing system can record up to 98 documents on a single 4" x 6" master that is easy to retrieve and read. The system includes a camera, a processor, and a monitor in a freestanding unit that takes up no more space than a desk. A document can be recorded, processed, and displayed on the monitor within ten seconds. Masters can be updated as easily as paper files can, and inexpensive duplicates can be made quickly, eliminating the problem of missing or misplaced files. Bell & Howell, Microimager Group. *Circle 105 on reader service card*

Stains, Waxes, Seals...in one operation



California home; Designer: Russell Forester, La Jolla, California; Cabot's Stain Wax on all interior woodwork



Cabot's STAIN WAX

This unique "three-in-one" finish, suitable for all wood paneling, beams, and woodwork, brings out the best in wood, enhancing the grain and producing a soft, satin finish in a choice of thirteen colors plus ebony, white, and natural. When a flat finish is desired, specify Cabot's Interior Stains for all interior wood surfaces.

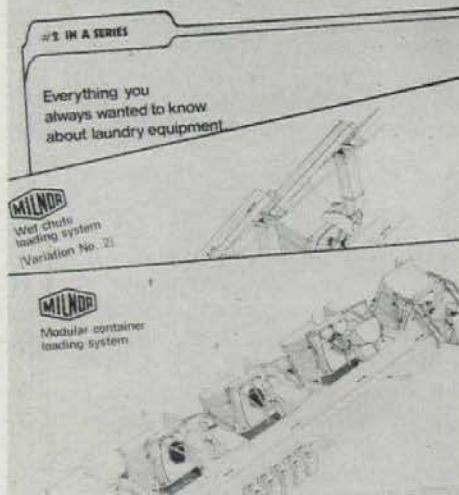
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So, if an upcoming project includes a laundry, check with MILNOR's Laundry Planning Department. And for a free file on large laundry systems, check the readers service card or write us today.



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A large-format pen plotter, HP7580A, is new to the market. The compact plotter (43" x 22" x 47" tall) is offered at approximately half the cost of competitive products. Said to be ideal for producing architectural plans, the plotter features microprocessor control, fast plotting speed, and excellent repeat, line quality, and resolution. It can automatically select colors, line widths, and character fonts. It is capable of plotting up to D size precut and preprinted sheets of paper, vellum, or polyester film. The plotter can be interfaced with a variety of large and small computers. Hewlett-Packard Co.

Circle 106 on reader service card

Tandem Systems seating can be joined to form angles, turn corners, encircle pillars, or form back-to-back seating. There are cantilevered styles and series that have pedestal bases. The system can also incorporate tables for added flexibility. Seats are available in fireproof wire mesh or upholstered with sleek thermoplastic or with fabric. Fixtures Manufacturing Corp.

Circle 107 on reader service card

Sure Shades®, recently introduced in the U.S., are made from a fabric that is woven of thermo-weldable yarn coated with Platicol. The fabric insulates against winter cold and summer heat, reducing fuel costs by as much as 35 percent, says the manufacturer, yet it has an open weave that lets in light and permits the outside view to be seen. A draw tape operates the gravity takeup spool, which locks the shade into position. It is offered in a range of colors. Sol-R-Veil, Inc., Div. of General Draperies, Inc.

Circle 108 on reader service card

Ultron Z nylon carpet fiber has a surface, produced by a patented process, that offers unsurpassed soil-shedding characteristics, says the manufacturer. It also has the durability, lasting appearance, and resistance to static buildup provided by other Ultron fibers. Carpets made with the new fiber are expected to be available this month, and those that meet company standards will be eligible [Products continued on page 233]

WE FIT IN

STAINLESS STEEL UNDER COUNTER LAB REFRIGERATORS AND FREEZERS



UC-5-BC refrigerator has a blower coil cooling system with automatic off-cycle defrosting and condensate evaporator in condensing unit compartment. Two adjustable stainless steel shelves are provided.

UC-5-F-CW freezer is equipped with automatic timer electric defrost. Capacity—5.4 cu. ft. (155 ltr.)



UC-5-CW* refrigerator with cold wall cooling system is equipped with push-button defrost, automatic reset and condensate evaporator. Capacity—5.4 cu. ft. (155 ltr.)

UC-5-F-CW* freezer is equipped with manual hot gas defrost. Capacity—4.6 cu. ft. (130 ltr.)

UC-5-CW-E refrigerator has the same interior features as the UC-5-CW but modified to make it totally explosion-proof. Capacity—4.9 cu. ft. (140 ltr.)

*With explosion proof interior only.



UC-5 features a two-tray ice cube cooling system with manual defrost and stainless steel defrost water tray. The cooler section has two adjustable stainless steel shelves. The entire UC-5 series features polyurethane insulated thin wall construction and air-tight neoprene thermo-break door seals. Capacity—5.4 cu. ft. (155 ltr.)

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Refer to Sweet's Catalog 11.20/Je for quick reference.

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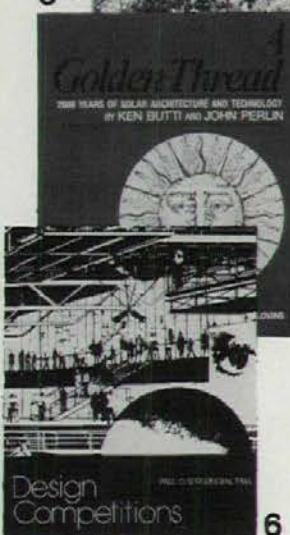
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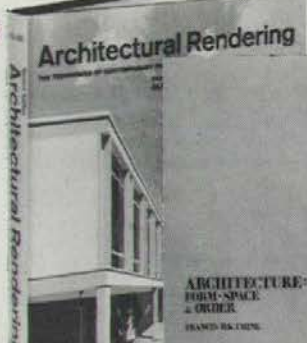
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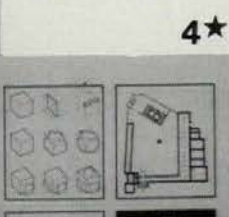
9★



3



4★



7

★8



10



Public Relations for the Design Professional

Gerre Jones

11

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Edited by Arthur Drexler with essays by Richard Chafee, David Van Zanten, Neil Levine and Arthur Drexler
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The most comprehensive analysis and documentation of Beaux-Arts architecture ever published. Includes large-scale drawings of elevations and plans and photographs of major French and American Beaux-Arts buildings (including Pennsylvania Station and Grand Central Terminal). Circle B601 under Books.

2 Energy Conservation Through Building Design

Edited by Donald Watson.
305 pp., illus. . . . \$24.25
This precedent-setting book provides the bridge between architect and engineer, practitioner and researcher, so necessary to the development of a rational approach to energy conservation. Not limited to new building designs, it also includes methods of analyzing existing structures and specific ways to reduce their energy consumption. Circle B602 under Books.

3 Architectural Rendering: The Techniques of Contemporary Presentation

By Albert O. Halse, 326 pp., illus., 2nd edition, 1972 . . . \$39.95
This completely up-to-date revision of the most widely used guide to architectural rendering covers all working phases from pencil strokes to finished product — and shows how to obtain the desired mood, perspective, light and color effects, select proper equipment and work in different media. Circle B603 under Books.

NEW★

4 Architecture: Form, Space and Order

By Francis D.K. Ching.
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Written to foster understanding of design concepts, this rich source of architectural prototype demonstrates how to extract the fundamental principles of form and space from the environment, whether in the architectural one views or inhabits, in architectural visualization, in drawing, or in actual design. Circle B604 under Books.

5 Affordable Houses Designed by Architects

Edited by Jeremy Robinson,
168 pp., illus. . . . \$19.95
This lavishly illustrated volume shatters the myth that architect-designed houses are more costly than developer-built houses. The superb photographs, floor plans, drawings, and details of interiors and exteriors present a wealth of ideas on how to construct beautiful and unique houses within limited budgets. Circle B605 under Books.

6 Design Competitions

By Paul D. Spreiregen,
310 pp., illus. . . . \$27.50
The first comprehensive guide to design competitions based on American practices, it examines in detail all important aspects of this timely subject, including how competitions work and the ground rules that govern most competitions. Circle B606 under Books.

7 Design and Planning of Swimming Pools

By John Dawes,
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A comprehensive manual that describes the essential characteristics and consequent design requirements of every type of pool imaginable. Also deals in great detail with more techni-

cal matters, such as structural problems and how to solve them, finishes, filtration, circulation and water treatment, heating and ventilating. Circle B607 under Books.

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10 Water in Landscape Architecture

By Craig S. Campbell
128 pp., illus. . . . \$15.95
This profusely illustrated book is the first published work that deals in substantial detail with the technical as well as the aesthetic principles of fountain design. Covers basic hydraulic principles, practical limitations, environment and available equipment. Circle B610 under Books.



11 Public Relations for the Design Professional

By Gerre Jones,
278 pp., illus. . . \$21.50

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

Circle B611 under Books.

NEW★

12 Encyclopedia of American Architecture

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

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

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NEW★

13 Leisure Homes

By A. W. Lees with E. V. Hyen,
320 pp., illus. . . \$18.95

The homes collected in this informative guide represent a broad spectrum of imaginative architectural design. Floor plans and interior views of 56 stunning leisure homes are shown in striking color, plus step-by-step instructions and complete plans for building the Popular Science Lockbox House.

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14 Architectural Illustration The Value Delineation Process

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

In this copiously illustrated, clearly or-

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

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NEW★

15 Furniture Designed by Architects

By Marian Page,
224 pp., illus. . . \$25.00

This well-illustrated volume features 26 prominent architects whose work, spanning two centuries, encompasses a broad spectrum of styles. The author explores the architects' reasons for their designs, as well as how they related to their time, place and contemporaries.

Circle B615 under Books.

16 Trees for Architecture and the Landscape Condensed Edition

by Robert L. Zion
208 pp., illus. . . \$11.95

This attractive book will aid communication between landscape architect, architect and layman with a comprehensive collection of photographic portraits of trees whose structure, habit and other characteristics make them especially useful in relation to buildings and outdoor spaces.

Circle B625 under Books.

NEW★

17 Drawing & Painting Buildings

By Reggie Stanton,
144 pp., illus. . . \$17.95

A one-volume library on architectural rendering shows how to render the

many components, props and elements in terms of setting, mood and composition for both residential and commercial projects.

Circle B617 under Books.

18 Design Cost Analysis for Architects & Engineers

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

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

Circle B618 under Books.

19 Architectural Stained Glass

Edited by Brian Clarke
234 pp., illus. . . \$32.95

The contributors to this book (through their stunning designs) emphasize stained glass as a constructivist art form, taking it out of its medieval ecclesiastical context and putting it into a contemporary framework, both secular and architectonic.

Circle B619 under Books.

20 The Earth Shelter Handbook

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

This paper-back handbook presents to architects, builders, private homeowners and commercial clients an easy-to-follow, step-by-step evalua-

tion plan for site selection, soil evaluation and criteria for placement in relation to wind and sun.

Circle B620 under Books.

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

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

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

Circle B621 under Books.

NEW★

22 Old and New Architecture: Design Relationship

280 pp., illus. . . \$25.00

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

Circle B622 under Books.

NEW★

23 By Their Own Design

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

Ten internationally known architects describe their concerns, both artistic and pragmatic, as they related to the process of designing and constructing one or more of their major buildings.

Circle B623 under Books.

24 Rendering With Pen and Ink

By Robert W. Gill,
368 pp., illus. . . \$12.95

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

Circle B624 under Books.

NEW★

25 Integrated Space Systems Vocabulary for Room Language

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

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

Circle B616 under Books.

26 How to Recycle Buildings

By Laurence E. Reiner,
244 pp., illus. . . \$19.95

The consensus of opinion by many authorities in the building industry is that recycling is here to stay and to expand. Here is an excellent reference on how to find, evaluate, survey, finance and market recycling projects profitably.

Circle B626 under Books.

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SCM CORPORATION, CLEVELAND, OHIO 44115

Circle No. 441

Products continued from page 228

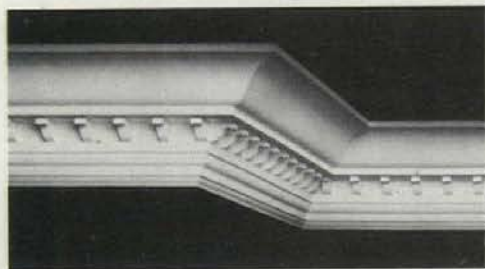
for five-year Wear-Dated labels. Monsanto Textiles Co.
Circle 109 on reader service card

MaxiLarm general alarm system, for building evacuation in case of fire, provides separate alarm and trouble announcement for up to 96 building zones. It is based on microprocessor technology and is factory programmable to provide optional extra features. It can be used in one-story, multistory, or high-rise buildings. Autocall Div., Federal Signal Corp.
Circle 110 on reader service card

Excite™ exit signs have a slim-line design with rounded corners. The housing is made of injection-molded, high-impact clear plastic for durability. The units operate on a.c. only or on a self-contained emergency system that provides lighting for 90 minutes, with batteries that fully recharge in 12 hours. Dual-Lite, Emergency Lighting Div.
Circle 111 on reader service card

Forma2Wall architectural metal curtain-wall system of factory-fabricated, prefinished panels comes in variable module lengths and widths up to 16 ft long and 5 ft wide. The flat panels have laminated honeycomb cores for rigidity and can be installed either horizontally or vertically. Finish can be matte or

glossy in a wide choice of colors. H.H. Robertson Co.
Circle 112 on reader service card



Modillion cornice #119, measuring 11½ in. across the face, is one of three large moldings scaled for very high ceilings and suitable for restorations or new construction. Another large-scaled molding is one that is an exact replica of the acanthus leaf and lamb's tongue motif used in Atlanta's Candler Building. The company produces a wide selection of moldings, medallions, domes, niche caps, and overdoor pieces. Focal Point, Inc.
Circle 113 on reader service card

Aluminized Steel Type 2 steel sheet is coated with aluminum by a method that forms a strong bond between the two metals, producing sheet material with the strength of steel and the corrosion resistance of aluminum. The aluminum surface takes and holds paint well and forms an effective barrier between the paint and the steel. Applications for the

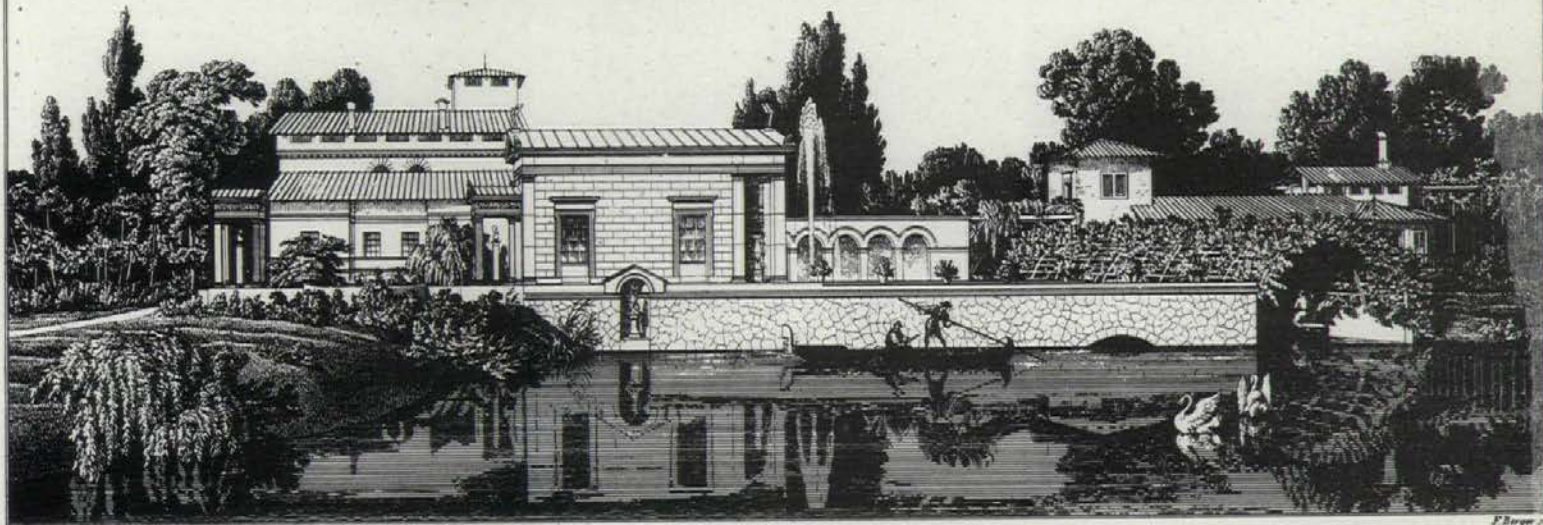
material include roofing, siding, fascia, gravel stops, flashing, gutters, and downspouts. Armco, Eastern Steel Div.
Circle 114 on reader service card

Lee Haven insulating storm doors have one-piece, high-strength steel facings, with an injected polyurethane core. Between the steel facings are wood stiles and rails to provide a thermal break. The frame is weather stripped and has four hinges to prevent sagging. Colors are white or adobe brown. Weather Shield Mfg., Inc.
Circle 115 on reader service card

Mod II Inner-Seal Sliding Window installs inside an existing window and helps to reduce heat loss. It is designed for use in industrial plants, offices, commercial buildings, hotels, hospitals, and similar buildings. It has an adjustable sliding glass sash, which is easily removed for cleaning, and an expandable frame. Finish is either white or bronze. Continental Aluminum Products Co.
Circle 116 on reader service card

Nailbase Thermasote® is a composite of strong, asbestos-free insulating and weather-resistant structural building board with polyisocyanurate foam, which has a Class 1 flame-spread, and bottom surface of asphalt-saturated felt. The sheathing accepts direct application of conventional siding materials or stucco, or it can be painted or stained and finished with battens. It is made in

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A LIMITED FACSIMILE EDITION of Karl Friedrich Schinkel's *Sammlung Architektonischer Entwürfe*, "Collection of Architectural Designs" is now available for order with a March 1981 delivery date. Fully respecting the delicate lithography of the 1866 edition, this new volume maintains the eighteen by twenty-four inch format and includes all 174 original plates plus the first complete English translation of Schinkel's own descriptive commentary. A preface by Mr. Philip Johnson and scholarly essays by Dr. Hermann G. Pundt, author of *Schinkel's Berlin*, and Professor Rand Carter provide contemporary criticism. This new edition of Schinkel's timeless work is limited to one thousand volumes, each in its own boxed folio.

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panels 4 ft wide and 8, 10, or 12 ft high in various thicknesses and R values. Homasote Co.

Circle 117 on reader service card

All-aluminum floors used for computer rooms are also suitable for clean rooms. The manufacturer says that the conductive vinyl wear surface on the aluminum flooring, which measures less than one megohm resistance at any point on the floor's surface, is also acid resistant. Even though they are perforated, the panels will support loads in excess of 1000 lb per sq in. Panels have adjustable louvers to control air flow around work stations. Floating Floors, Inc.

Circle 118 on reader service card

Tilekote 19 penetrating sealer for terra-cotta, Mexican, and other unglazed tiles and clay products dries to a satin sheen and protects against penetration of dirt, stains, and moisture. The manufacturer says that usually only two coats are required to seal and protect properly. The sealer dries in approximately two hours, generally permitting all applications to be made within one day. Dura Seal, Div. of Minwax Co.

Circle 119 on reader service card

Snow- and ice-melting systems for new construction are fully grounded heating cables in a preformed mat. They are buried below the surface of concrete or asphalt at the time it is being laid. The UL-listed product uses low wattage and operates at lower cost than many other removal methods, says the manufac-

turer. The system is suitable for loading and shipping docks, walks, drives, parking lots, and steps in commercial, industrial, institutional, and residential applications. Easy Heat-Wirekraft.

Circle 120 on reader service card

Modular Units with Connectors panel system includes three basic hanging storage components: 12-in.-deep shelf, open storage unit, and self-storing flipper door unit. All the storage units, which are available in standard oak finishes, hang from the top edge of the screen. The panels have an electrical raceway, two-circuit system, with pass-through and right angle capabilities. Rose Johnson, Inc.

Circle 121 on reader service card

Literature

Aura downlights and wallwashers can be used with incandescent, mercury vapor, metal halide, and high pressure sodium light sources. Dimensions, detail drawings, and photometric data on the various recessed and semi-recessed models are provided in a 28-page brochure. Omega Lighting, Emerson Electric Co.

Circle 200 on reader service card

Wood floors brochure provides drawings and photos of plank, strip, and parquet floor designs. The eight-page brochure lists wood varieties available and dimensions of preassembled units. There is also a glossary of terms used in describing the floors. Kentucky Wood Floors, Inc.

Circle 201 on reader service card

Granite.

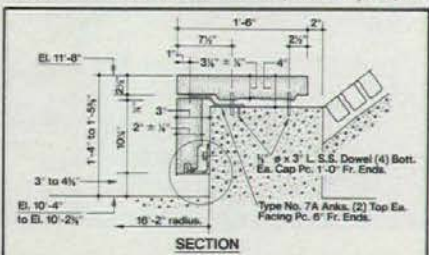
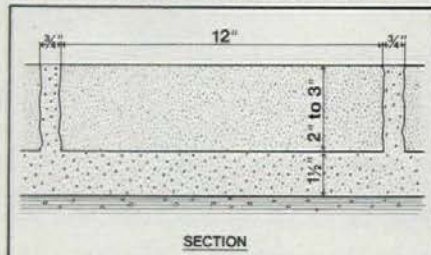
Not-so-pedestrian plazas for pedestrians.



Architect: Joe Karr & Associates, Chicago, IL
Sturr Young, Associate Architect, Oak Park, IL



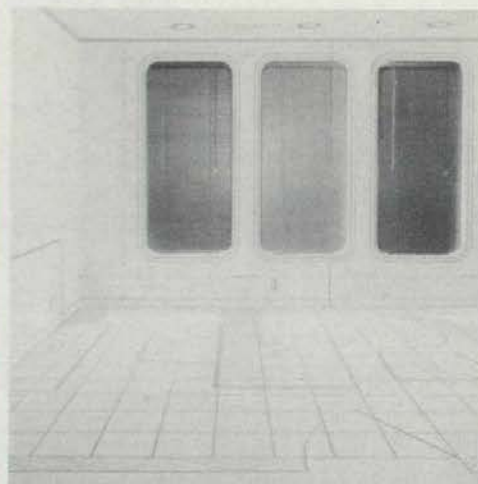
Architect: Murphy Levy Wurman, Philadelphia, PA
Project Architect: Vincent Maiello, Philadelphia, PA



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Cold Spring Granite Company, Dept. PA-1, 202 South 3rd Avenue, Cold Spring, MN 56320
Circle No. 323 on Reader Service Card



Bali blinds for commercial buildings are discussed in an eight-page brochure that includes cutaway drawings of head-rail and bottom rail. The brochure outlines design features, with numbered explanations keyed to drawings. Also provided are a color chart and suggested specifications. Marathon Carey-McFall Co.

Circle 202 on reader service card

Filing systems brochure discusses the organization of material to be filed to save both time and floor space. Products include Tab-Trac[™] high-density mobile [Literature continued on page 236]



THE SCHOOL BOARD ASKED FOR A BARGAIN. ACME BRICK GAVE THEM MORE THAN THEY BARGAINED FOR.

Loadbearing Acme Brick were selected for the Barling Elementary School for Fort Smith, Arkansas. Its curved walls at every corner were accomplished by a very simple factory modification to standard king-size brick. The double wythe wall provides its own finish surface, both inside and out. A wall, that for the life of the school has been, and will continue to be, totally maintenance-free. Maintenance and energy costs have been further reduced by limiting the number of exterior windows. Glass breakage has been reduced to an absolute minimum.

Miles Shopfner, Director of Maintenance and Purchasing, Fort Smith Public Schools: "Glass breakage savings alone can justify the selection of brick." He further added, "Our average school interior needs to be completely repainted every ten years, or even more often. This is eliminated at Barling. And besides, the building is less costly construction-wise."

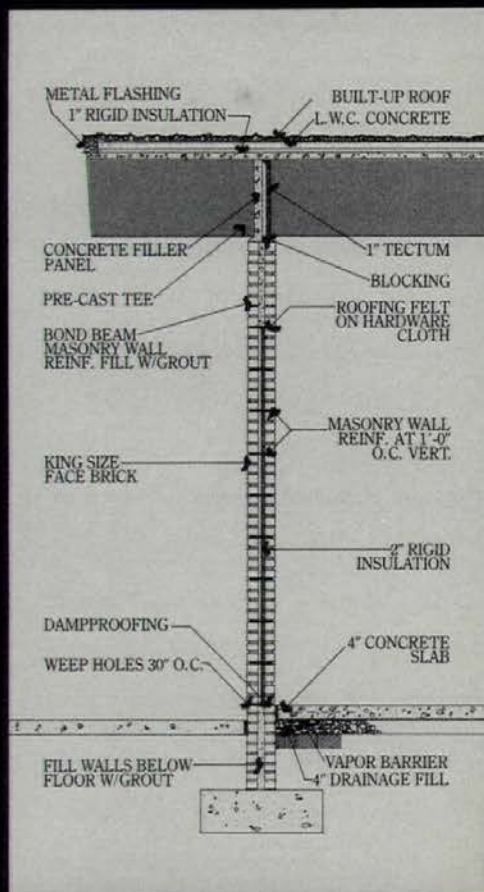
Fire safety is another factor all parents and school officials are concerned with. Walls of Acme Brick are totally fire-resistant. Principal Rex Cochran: "The fire drill is an exercise we really don't need — with walls that just can't burn."

In this school's seven-year life, the 200,000 Acme Brick have paid for themselves several times over by savings to the School District and the people of Fort Smith, Arkansas.



For more information on Acme Brick's Loadbearing Design, and for cost data on Barling Elementary School, call collect (817) 332-4101, ext. 365. Or write Acme Brick Technical Services, P.O. Box 425, Fort Worth, Texas 76107.

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 Architect: Saxton Wanslow Smith Associates, Fort Smith, Arkansas
 Structural: Burrough-Uerling-Brasuell, Engineers, Fort Smith, Arkansas
 General Contractor: Gary Crawford Construction Co., Fort Smith, Arkansas
 Masonry Contractor: Ronald Ray Masonry Contractor, Fort Smith, Arkansas

Literature continued from page 234

storage units, sorters, rolling carts, data tables, microfilm carousels, and folders, file pockets, and labels. The 32-page color brochure also explains the use of color coding to make files easier to find. TAB Products Co.

Circle 203 on reader service card

Steel joist/joist girder specifications cover the latest revisions and updated information on open-web steel joists, long-span steel joists, and deep long-span steel joists to carry uniform loads over 8-144-ft-long spans. The 52-page catalog also covers specifications, design and manufacture, application, handling, and erection. Steel Joist Institute.

Circle 204 on reader service card

Construction selector provides information about partitions, ceilings, roof assemblies, structural fireproofing, and exterior walls and furring. Sections are organized to make information easy to locate. Also included in this 24-page catalog is a list of product catalogs available covering construction products and completing the company's series of architectural technical literature. U.S. Gypsum.

Circle 205 on reader service card

Monolithic roofs of poured gypsum concrete over Keydeck® reinforcing mesh and Keydeck® Truss Tee or Bulb Tee subpurlins are described in a 12-

page brochure. Specifications and design properties of truss tees are provided in tabular form. Roof deck material specifications are also included. Keystone Group.

Circle 206 on reader service card

Soft Shell Structures® brochure covers company capabilities for producing tensioned membrane structures including design, engineering, and fabrication. Examples of membrane, air, and rigid-frame membrane structures are illustrated in color. The 36-page brochure also provides property tables and descriptions of the materials used—vinyl-coated polyester and Teflon®-coated fiberglass. Helios Tension Products, Inc.

Circle 207 on reader service card



'Versatile Compact Kitchens' is a 16-page full-color brochure showing a vari-

ety of units providing kitchen, wetbar, and refrigeration facilities. The units are suitable for employee lounges, hotels, motels, retirement housing, and apartments. Specifications are provided, along with a list of options available for each model. Cervitor Kitchens, Inc.

Circle 208 on reader service card

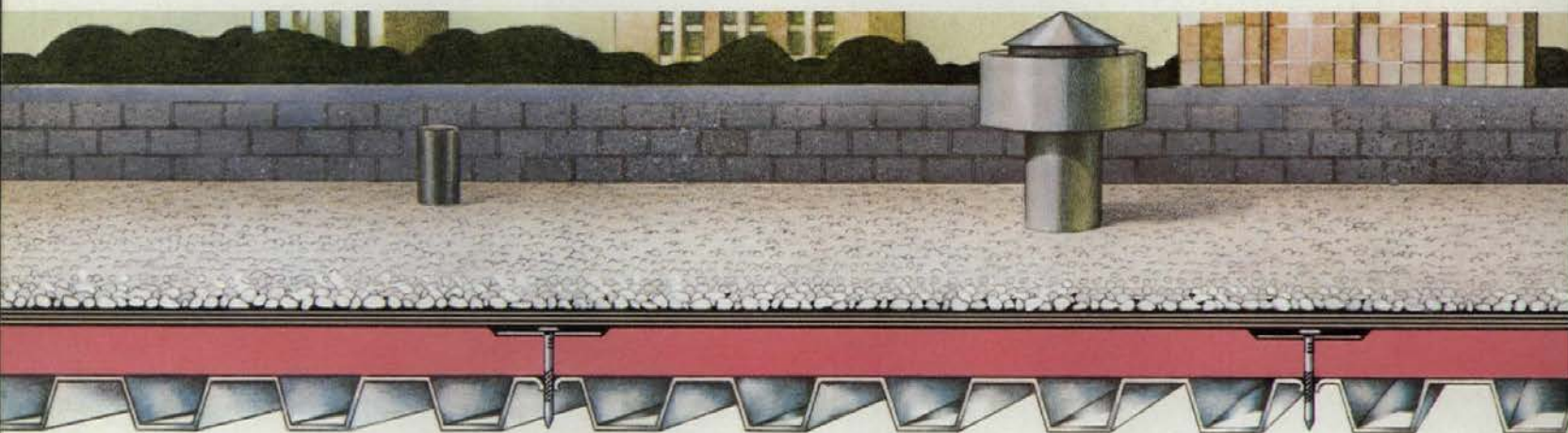
Interior door handles of cast brass in several designs, with or without locking devices, are illustrated in a 20-page color brochure. Detail drawings show dimensions, and brief descriptions are provided. Valli & Columbo (USA), Inc.

Circle 209 on reader service card

Overhead Door Selector Guide® includes definitions, door types and comparisons, hardware options, trajectory types, engineered systems, manual and electrical operator information, and updated specifications. Illustrations of the doors and detail drawings are shown. The 24-page guide also has a section on energy conservation. McKee Door Co.

Circle 210 on reader service card

'Residential Solar Design Review: A Manual on Community Architectural Controls and Solar Energy Use.' This 92-page guidebook was prepared by the American Planning Association under contract to HUD. It is intended primarily for members of private architectural review committees, but also may be of interest to public design review boards, historic preservation commissions, and



WHAT THE BEST INSULATED ROOFS

THE PINK STUFF: Thermax®. It is simply the most efficient roof insulation on the market with a Factory Mutual Class I Fire Rating over steel decks. Thermax provides more insulating efficiency per inch than fibrous glass, composite, perlite or fiberboard roof insulations. Since mechanical fastening is the preferred system of attachment to steel decks, use Insulfast rapid fastening nail/disc system—a pneumatic gun and oxide-coated nails for fast, easy, permanent installation of Thermax to steel decks.

designers who present proposals to such committees. The manual examines some of the design issues associated with solar energy and suggests ways of reviewing solar installations and buildings in the context of community goals. Criteria examined include type of solar system being used and the ways in which it relates to building design, building site, and the neighborhood. Single copies are available free by writing to National Solar Information Center, P.O. Box 1607, Rockville, Md 20850.

Foamular[™] fact sheet provides information about R-values of this closed-cell panel insulation. A chart shows 11 panel sizes, the square feet per bundle, and R-values at 75 F. UC Industries, United States Gypsum Co.

Circle 211 on reader service card

'Creating Permanent Fabric Structures' is a 16-page, full-color guide to fabric structure technology. It discusses how Sheerfill[®] fabric structures fit into design/build processes, with photos and illustrations of the construction process and built structures. Chemfab, Birdair Structures Div.

Circle 212 on reader service card

'Steel Framing Systems Manual' is a 24-page illustrated manual about designing and specifying steel framing systems for structural load-bearing applications. Intended for use by architects, engineers, specifiers, and contractors, the manual includes chapters on the ad-

vantages of steel framing systems, and specifications for cold-formed steel framing fabrication, connections, and erection. It also offers case studies of projects using steel framing systems. For a copy write on professional letterhead to Metal Lath/Steel Framing Association, Suite 2026, 221 N. LaSalle St., Chicago, Il 60601.



Concrete paving, described in a color brochure, includes colored, imprinted concrete; Bomacron colored, textured concrete; and Grasscrete structural grass/concrete for architectural, landscape, and urban renewal use. Bowmanite Corp.

Circle 213 on reader service card

'Floors for Public Places' brochure illustrates the use of wood flooring in places as diverse as a church sanctuary

and a basketball court. The eight-page, full-color brochure shows several parquet patterns, as well as strip flooring, in a variety of woods. Hoboken Wood Floors.

Circle 214 on reader service card

Special Hazards fire protection brochure covers water spray systems, Selfcon[®] water spray systems, Primac[®] high speed fire protection, and protection by means of foam, Halon, carbon dioxide, and dry chemicals. The 48-page brochure also has a selector chart that aids in determining the best system to meet the user's needs. Grinnell Fire Protection Systems Co., Inc.

Circle 215 on reader service card

Thermal replacement windows and doors for commercial, industrial, residential, and institutional applications are shown and described in an eight-page catalog, which provides complete specifications, installation instructions, and performance data. All the windows are AAMA certified and HUD approved. Air Master Corp.

Circle 216 on reader service card

Swimming pool equipment catalog lists diving boards and towers, ladders, steps, lifeguard chairs, racing lanes, and other deck and in-pool equipment. Technical data and specifications are provided, along with photographs and detail drawings illustrating the equipment. KDI Paragon.

Circle 217 on reader service card

ARE WEARING THESE DAYS.

THE GREEN STUFF: Tempchek[®]. It gives you the same high R-values as Thermax, and is used on all types of decks, except directly over steel decks. Tempchek is the only urethane foam roof insulation reinforced with glass fibers. It has greater dimensional stability than the others, so it resists "growth" and ridging. All of which makes Tempchek first choice for any application other than directly over steel. Talk to your Celotex representative about the stuff the best insulated roofs are wearing these days, or call Ed Levin at Celotex, Roofing Products Division: (813) 871-4545.

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CORIAN® is solid value for both builder and buyer.

When you select CORIAN® building products for bath, kitchen or bar, you offer buyers a solid investment in luxurious beauty plus durability and ease of care.

The solid construction of CORIAN is unique. Marble-like patterns and colors run clear through. There's a depth and richness not possible with coated "synthetic marbles" or laminated plastics.

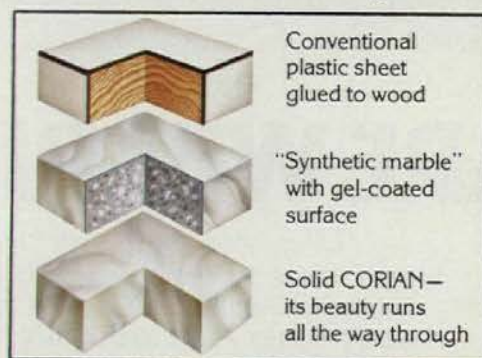
CORIAN is tough enough to take rugged wear without losing its look of elegance. It resists staining. And a little household cleanser does

away with minor surface scratches or cigarette burns.

What's more, craftsmen can work and shape CORIAN as easily as wood, to carry out the most imaginative decorating ideas.

CORIAN comes in one-piece molded tops and bowls for baths, kitchens and bars in a range of styles and sizes. CORIAN sheet for kitchen and bath counter tops, wall wainscoting, bath and shower surrounds, and custom surfaces is also available.

Successful builders find CORIAN appeals to buyers. It's a solid



investment in beauty, and adds more in value than in cost. For more information write: DuPont, Room X38401, Wilmington, DE 19898.



Circle No. 364 on Reader Service Card

Why did the new Atlanta Airport choose gas air conditioning? Pure economics.



Architects, Engineers and Planners: Stevens & Wilkinson; Smith, Hinchman & Grylls; Minority Airport Architects & Planners.

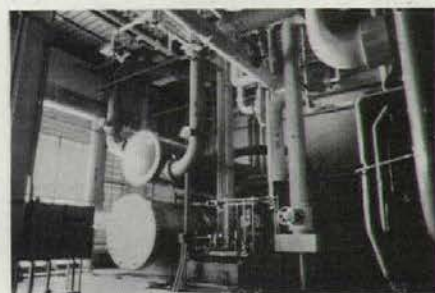
In the world's largest airport terminal complex, designed to serve over 50 million people a year, air conditioning is a prime consideration.

When Atlanta's engineers examined the systems meeting their specifications, they decided on heat driven equipment as the lowest energy user and the most cost-efficient based on life-cycle analysis.

Their selection was a steam operated turbo-absorption air conditioning system. Designed for future growth, this 7,500 ton system has one of the lowest energy consumption rates per ton hour of cooling available—just 7.8 lbs. of steam per hour. The primary fuel is natural gas.

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Gas: The future belongs to the efficient.



Cooling Equipment: Turbo-Absorption
by York Division, Borg-Warner Corporation.

AGA American Gas
Association



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Architectural Illustrator: Full time architectural illustrator needed by architectural/engineering firm. Responsibilities would include: illustration of building designs and urban planning concepts, architectural design of buildings and some graphic design. Candidate must possess an M.S. in Architecture with an emphasis on architectural illustration and have a working knowledge of all normal office machines. Excellent working conditions. Starting salary \$18,720 per year. Send resume in confidence to: Debbie Keene, KZF, Incorporated, 2830 Victory Parkway, Cincinnati, Oh 45206. We are an Equal Opportunity M/F Employer.

Architectural Specification Writer: Needed for Architectural and Engineering firm. Bachelor degree and three to five years experience required. Salary commensurate with experience. Send resume to: Skidmore, Owings & Merrill, 5251 Westheimer Suite 200, Houston, Tx 77056, Attn: E.L. Thompson.

Branch Office Director: Major A/E firm seeking registered architect to head up established branch office in Orlando, Florida. Must be ready to accept challenge of administration, production and client development functions. Growth potential and excellent benefit package. Submit resume with salary history: Watson and Company, 3010 Azeele Street, Tampa, Fl 33609.

Environmental/Interior Design: Opportunity for creative individual to teach and provide leadership in expanding program at undergraduate and graduate levels. Experience in college instruction and involvement in professional societies highly desirable. Send resume, three letters of recommendation, transcripts to Mary Ann Zentner, Department of Clothing, Textiles and Related Art, Virginia Tech University, Blacksburg, Va 24061. Affirmative Action/Equal Opportunity Employer.

Faculty Position—Full time, tenure track faculty position in Interior Design program. Degree and 3 years professional experience in interior design, architecture or related field. Rank, salary open. Send resume, references before March 1, 1981 to college of Visual & Performing Arts, Mary Ellen Letterman, Department of Design, Syracuse University, Syracuse, New York 13210. An Equal Opportunity Affirmative Action Employer.

Faculty Position—Nine-month appointment beginning September 1, 1981; Assistant Professor rank. Salary commensurate with qualifications.

Teach studio courses in advanced architectural design in undergraduate/graduate professional degree. Secondary responsibilities to complement special interests. Qualifications: Graduate, second professional degree in Architecture, teaching experience in advanced architectural design studio as graduate assistant or faculty member. Professional practice and registration desirable. Application deadline: March 1, 1981. Send resume, three references, and examples of student work done under your direction to Richard Dodge, Chairperson, Faculty Search Committee, School of Architecture, The University of Texas at Austin, Austin, Tx 78712. Hal Box, Dean. An Equal Opportunity Employer.

Faculty Positions: The College of Architecture of King Faisal University in Dammam, Saudi Arabia, has just created new faculty positions for the academic year 1981-1982. Positions available at all levels in the following areas: Architecture, Urban and Regional Planning, Landscape Architecture, Engineering Sciences, Building Technology and Mathematics/Physics. Candidates should have Ph.D., M.A., or equivalent degree; practical and/or teaching experience preferred. Language of instruction is English. Positions start in September 1981. Salary is competitive and negotiable. Benefits include free furnished accommodations, air tickets to and from Saudi Arabia once a year for husband, wife and 2 children, 60-day summer holiday. Please submit complete resume (including daytime telephone numbers) and a listing of three references to Dean Ahmed Farid Moustapha, College of Architecture, King Faisal University, % Saudi Arabian Educational Mission, 2425 West Loop South, Houston, Tx 77027.

Hospital Designer/Sr. Draftsperson: Full-time experienced hospital designer needed by South Florida architectural firm. Excellent opportunity with paid benefits. Send resume to: Jerome A. Goebel, A.I.A. Architect, Inc., 1720 Harrison Street, Hollywood, Fl 33020. (305) 920-2120.

Director: Interior Design—College of Architecture with programs in Architecture, Interior Design, Landscape Architecture, Urban and Regional Planning and Building Construction seeks well-qualified Interior Designer or allied professional to direct Interior Design program beginning August 1981. Qualifications include Master's degree and extensive teaching and professional design experience. Send resume, official transcripts, and three letters of recommendation to Ronald W. Haase, Chairman, Interior Design Search Committee, College of Architecture, 331 GPB, University of Florida, Gainesville, Fl 32611. Application deadline: Feb. 27, 1981. U.F. is an Equal Opportunity/Affirmative Action Employer.

Interior Design Faculty: 1 or 2 positions open at Assistant/Associate professor level, tenure-track, August 1981. Responsibilities include design studio involvement plus areas of special interest. Qualifications include Master's degree plus design and/or teaching experience. Send resume and official transcripts to Ronald W. Haase, Chairman, Interior Design Search Committee, College of Architecture, 331 GPB, University of Florida, Gainesville, Fl 32611. Application deadline: Feb. 27, 1981. U.F. is an Equal Opportunity/Affirmative Action Employer.

Montana State University, a landgrant institution of 10,500 students, invites nominations and applications for Dean of College of Arts and Architecture available on July 1, 1981. The college encompasses the Departments of Film and Television Production, Music, Theatre Arts, Schools of Architecture and Art, has 65 faculty members and 1,100 student majors. **Qualifications:** Achievement in college level instruction; terminal degree in the area of specialty; record of recognized research, publication, creativity, or performance; evidence of academic administration, faculty relations, and program development and evidence of effective advocacy of the arts and resource development. **Responsibilities:** Dean is chief administrator of the college, is charged with coordinating departmental programs and representing the college to the

[continued on page 245]

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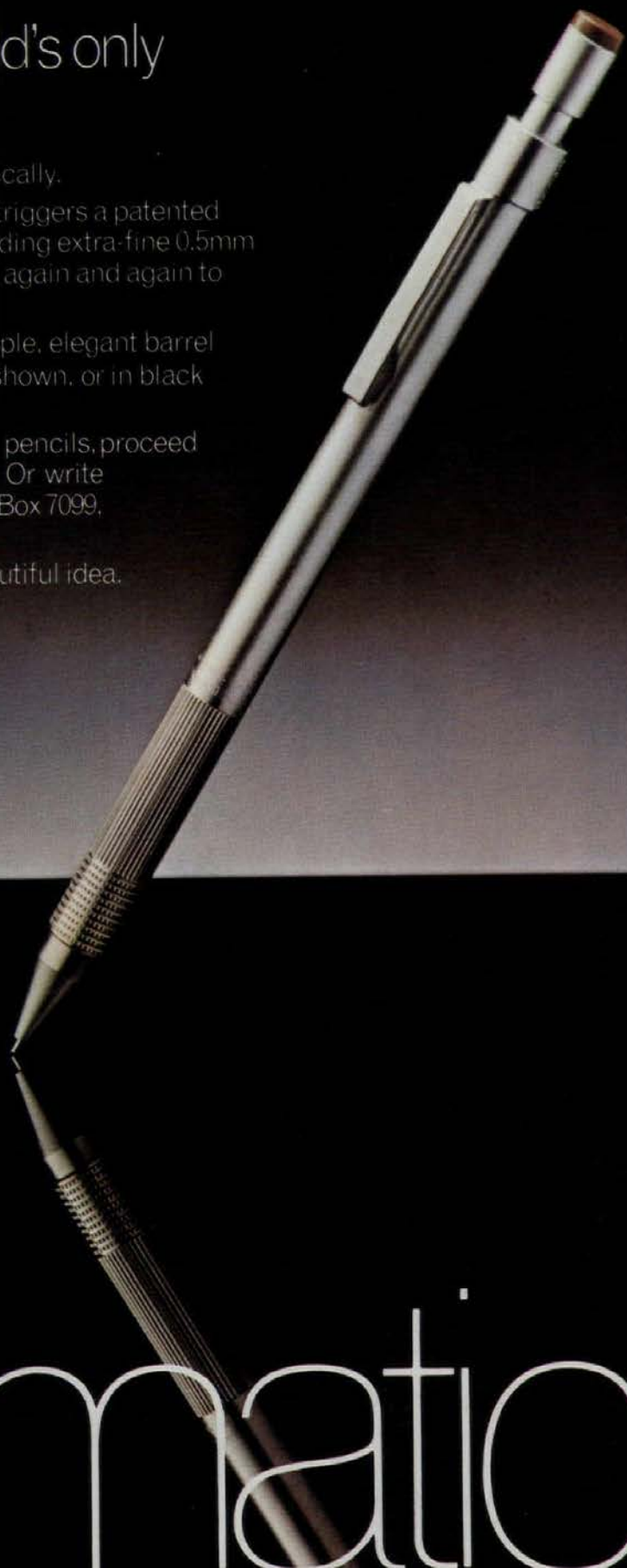
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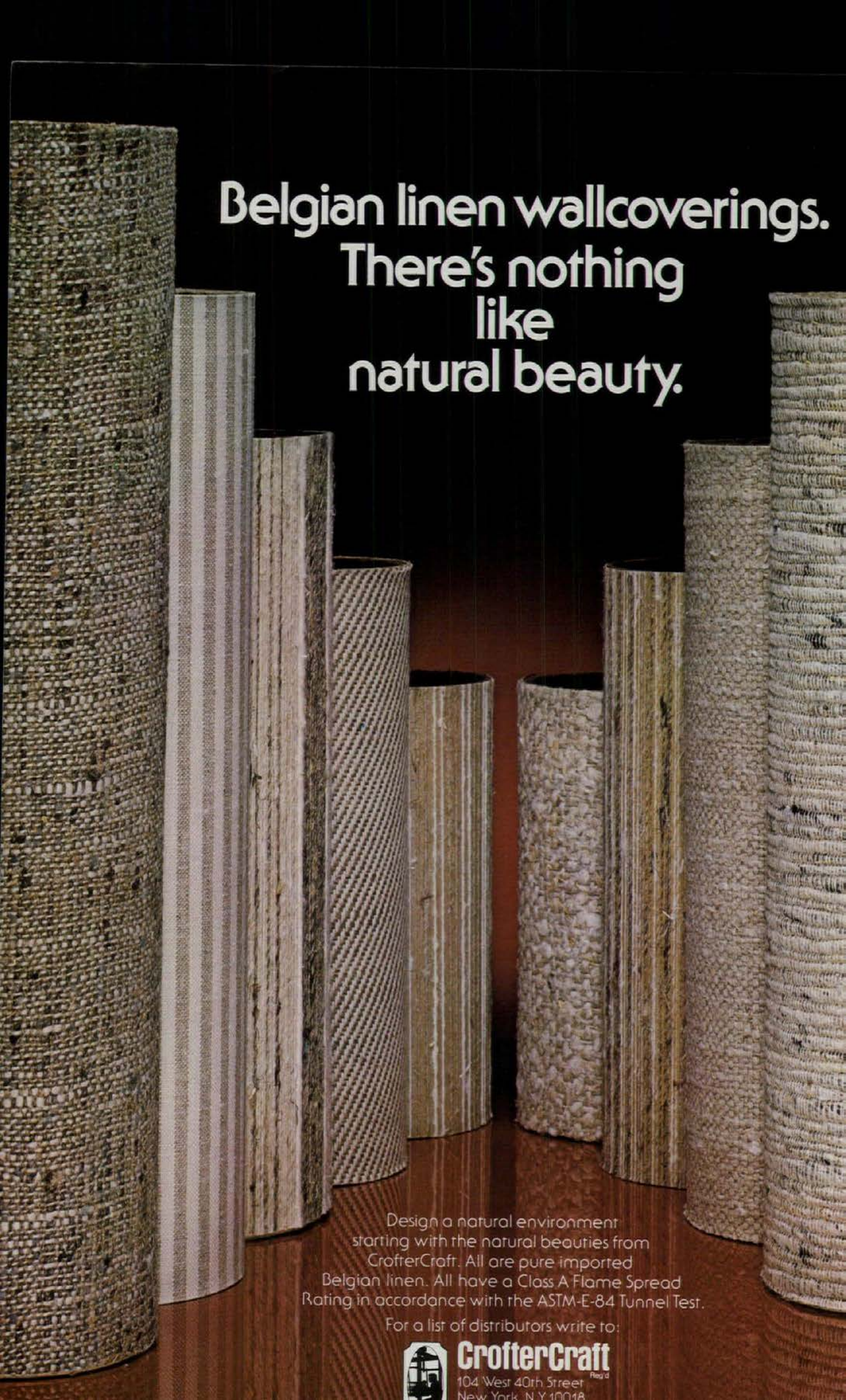
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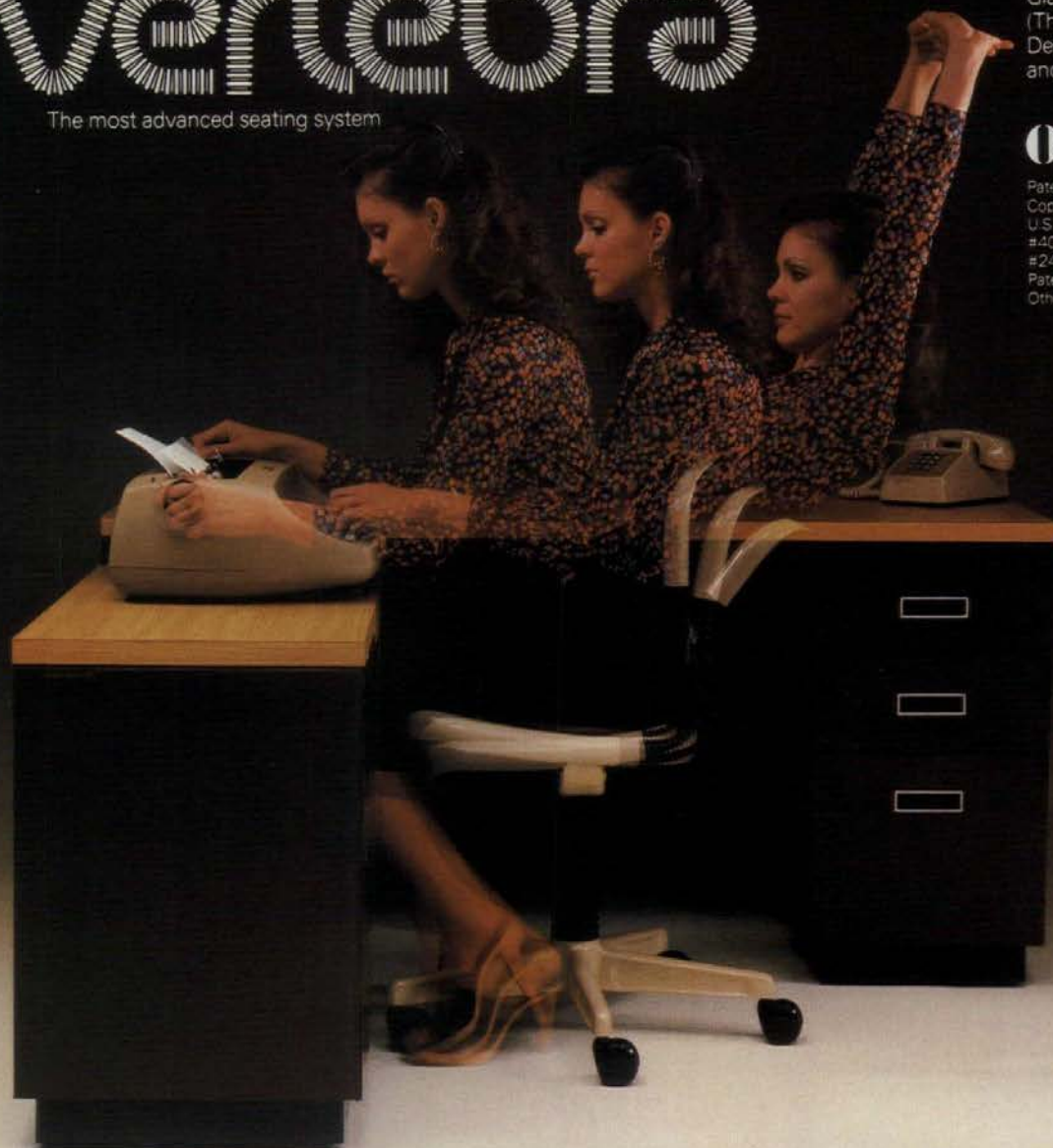
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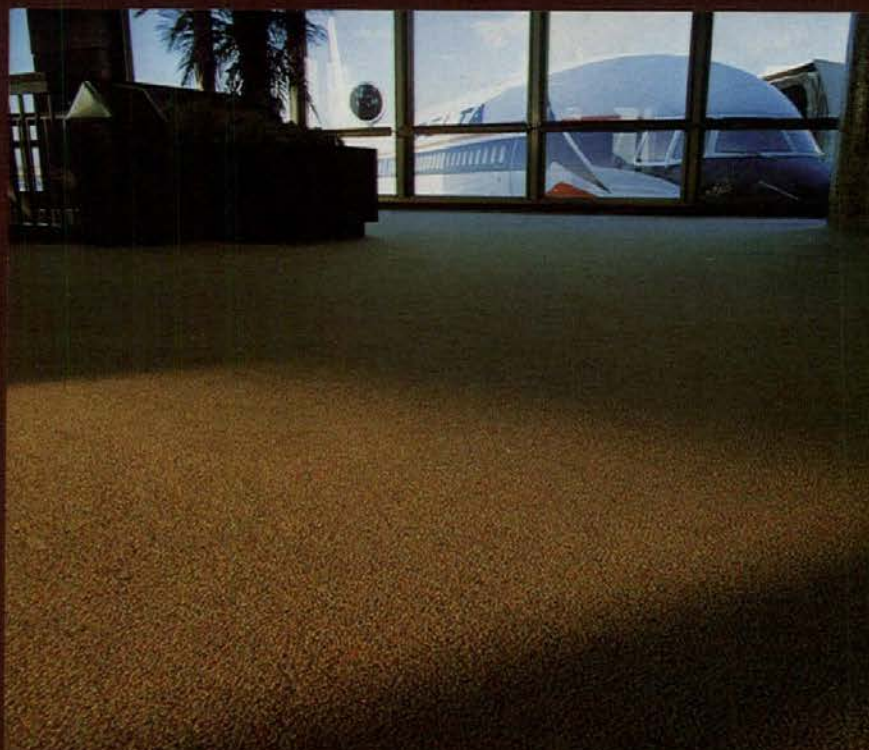


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Position Announcement: Applications and nominations are sought for positions on the Environmental Design faculty available 16 January 1981 and 1 September 1981. Job Description: To instruct at the undergraduate level (beginning and advanced classes) in the subject areas of architectural and environmental design and graphics. Requirements: a Master's degree from an accredited school, professional license or intent to obtain, office experience. Salaries are commensurate with full-time, nine-month employment at Instructor, Assistant Professor or Associate Professor ranks. Applications should include a resume, academic credentials and letters of reference. A portfolio, or slides, should be available if called for. These would be promptly returned. Applications or nominations should be sent to: John O. Greer, AIA, Head, Department of Environmental Design, College of Architecture and Environmental Design, Texas A&M University, College Station, TX 77843.

Rhode Island School of Design seeks candidates for two full-time positions at the rank of Instructor or Assistant Professor beginning September 1, 1981. Joint appointment in the Departments of Architecture and Landscape Architecture in the area of technology: Energy Systems, HVAC, Lighting and/or Surveying, Terrain Analysis. Periodic assignments to a Comprehensive Design Studio either in Architecture or Landscape Architecture. Appointment in the Department of Interior Architecture in the area of Architecture, Interior Design and combination of the following: Interior Materials and Detailing Color, Lighting, History, and Preservation. Master's degree in appropriate field is required. For further information, contact Dean Friedrich St. Florian, Division of Architectural Studies, Rhode Island School of Design, Providence, RI 02903. Rhode Island School of Design is an Equal Opportunity Employer.

School of Architecture and Urban Planning—University of Wisconsin-Milwaukee: The Department of Architecture has the following vacancies for Fall, 1981. A Professor with a background in Environmental Behavior, Urban Design and/or Conservation. A Ph.D. or equivalent Scholarly work is required. Three Assistant Professors for tenure track positions. One to teach Energy Conscious Design and to become involved in energy conservation research. One to teach Architectural Fundamentals. One to teach an open specialization. Applications should be received by February 14, 1981. Include letter of intent, a current vitae and sample pages to Robert Beckley, P.O. Box 413, Milwaukee, WI 53201. An Equal Opportunity Employer.

Senior Architectural Designer: The Denver office of a medium sized design firm is looking for an experienced designer with a background in medical, office buildings and schools. Strong design ability is the main requirement. This is a management level opportunity in a young growing office. The position offers excellent compensation, principal opportunity and a benefit package along with the recreational opportunities of Colorado. Please send resumes in confidence to S. Tate, 710 N. Second St., Suite 500 South, St. Louis, Mo 63102. (314) 621-6600.

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Faculty Positions: University of Maryland. Interior Environments, Visual Communications. Qualifications: Ph.D. or other terminal degree, demonstrated ability in teaching and research. Rank and salary open. Vita to: Guido Francescato, Chairperson, Department of Housing and Applied Design, University of Maryland, College Park, Md 20742. EO/AA employer. Deadline: January 30 or until suitable candidate found.

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and/or design should strongly demonstrate basis for development of coherent theoretical issues in area of teaching specialty. Vita, 3 letters of recommendation, samples of work and covering letter of teaching interest should be sent altogether to Chairman, Search Committee, Department of Architecture and Planning, University of Miami, P.O. Box 248294, Coral Gables, FL 33124. Preference will be given to those applications which are received by February 1, 1981. An Affirmative Action/Equal Opportunity Employer.

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**Moving people in style. Saving energy.
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Customers were impressed with the dynamic looks of this "Stairway to the Stars" and its spectacular 90-foot glass balustrade.

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To find out more about these people-pleasing people-movers write Westinghouse Elevator Company, 150 John Kennedy Parkway, Short Hills, NJ 07078.

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