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EVENTS


May 6-8: LOGISTEX '86—Physical Distribution Exposition and Forum, St. Louis. Contact: The Material Handling Institute, 940 Western Ave., Pittsburgh, Pa. 15233.

May 7-11: Scandinavian Furniture Fair, Copenhagen, Denmark. Contact: Judith Therese Ildefonso at Institute headquarters, 3971 S. Holly Circle, Suite 100, Englewood, Colo. 80112.

May 12-16: International Teleconferencing Association Trade Show, Madison, Wis. Contact: Tom Giacoponello, IITCA, 1299 Woodside Drive, Suite 101, McLean Va. 22102.


May 15-17: AIA Urban Planning and Design Meeting, Seattle. Contact: Bruce Kriviskey at Institute headquarters, (202) 626-7436.


May 28-30: Workspace '86—Annual Exhibi


May 28-31: AIA Meeting on Design Methodologies for Health Facilities, Monterey, Calif. Contact: Mike Cohn at Institute headquarters, (202) 626-7366.

June 8-11: AIA Annual Convention, San Antonio, Tex.

LETTERS

Underground Buildings: It is not very easy to judge an underground building in terms of architecture; there is not enough showing to establish any presence of a built edifice in conventional terms. It really comes down to that other major aspect in architecture, and that is space. In the case of our Uris Library at Cornell [Feb., page 50], very much interior space. Andrea Oppenheimer Dean's article captured the feeling and expressed it very nicely. Only the first paragraph made me a little sad. It sounded as if underground buildings, after making a short, justified appearance, have been phased out and become part of history. I hope that your readers don't construe both the Michigan Law Library and Uris Library as sad or nervous reply but instead recognize the real reason why they were put underground. I do hope to build many more buildings below the surface, if appropriately deserving to be there.

Gunnar Birken, FAIA
Birmingham, Mich.

Andrea Oppenheimer Dean responds: The building of underground structures has been one of the more sensitive, sensible, and self-effacing acts in recent architecture, the obverse to trendy "look at me" responses.

Earth Bermed School: It is always gratifying to see publication within your pages of not only corporate headquarters or the palaces of high culture of our society, but also of schools and housing, the stuff of which so much of our physical environment is composed. Yet it is with sadness that we read of the Eugene Field Elementary School [Feb., page 44], a school with few if any windows, as an example of a quality environment. Where are the joys of witnessing the change of the seasons, the pattern of weather, the variety of light quality throughout the day? Where is the opportunity to see one's neighborhood at work: the movement of people, the firetrucks to the rescue, the society of one's peers in the playground? Surely these, too, are important parts of what our children should learn.

The effort to make the school compatible in scale with its neighborhood is certainly admirable and correct. If it was felt, however, that the design for a school of this size could not be accommodate above ground without blemish and the subsequent decision to eliminate window then one would hope to question the iss of scale at a more basic level: Is the sea of the school building disproportionate to that of the neighborhood? Should encouragement be given to several small decentralized buildings more compatible in scale with the separate neighborhood they serve?

Our role as architects must not be to blindly accept the dictates of our client but to explore ways of structuring a visicle of what can be, so that as a society we can build a better future. A school with out windows gets us off to a very poor start.

Dieter Mru.
Frederick Schneider, AIA
Charlottesville, Va.

Subordination of 'Statement': The excellent choice of Escherick, Homsey, Dodge & Davis as firm of the year [Feb., page 28] reinforces a favorite concept of mine: The successful adaptation and reuse of the architecture of the past is a problem much more difficult than that of a total new building on its own site. Respect for the existing building, careful attention to detail, and the apparent subordination (Escherick, Homsey, Dodge & Davis's nee to "make a statement" to the existing form requires a special talent. This talent is obvious in the Cannery and the Monterey Bay Aquarium. I salute this firm's excellent work and applaud your selection as a good article.

James T. Biehle, AIA
St. Louis

(The AFA firm of the year is selected by the Institute honors jury. —Ed.)

American Architects Series: We are delighted with Professor Herbert Gottfried's informative review of The Law Courts: The Architecture of George Edmund Street by David Brownlee [Books, Feb., page 74]. However, I would like to point out that this book is not part of the Architectural History Foundation's "American Monograph Series." As the title implies the AMS is devoted to books about American architects.

Victoria Newhouse
Architectural History Foundation, Inc.
New York City

Corrections: In accordance with a landscape master plan by EDAW, replacement of trees on the Jeffersonian lawn of the University of Virginia will be confined to maples (see Dec. '85, page 63). Ash and locust are to remain. In "Skyscrapers: Adventures in Form" (Jan., page 70), a building by Skidmore, Owings & Merrill/New York, the National Commercial Bank in Jeddah, Saudi Arabia was incorrectly identified as the Kuwait National Bank Building.
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Magical Ice Palace Celebrates t. Paul’s 100th Winter Carnival

Minnesota... land of 10,000 lakes, not of them frozen too much of the time. The Twin Cities may be the only major metropolitan area where the wind-chill factor is more commonly quoted than the snowfall in the world’s largest urban wine country. For many, though, the real reason for the Windy City’s reputation for cold is an aversion toward the particular construction problems posed by ice.

Ellerbe’s design differed strikingly from previous ice palace designs. “We didn’t want to do Edinburgh,” Ermanis said. “This is a palace of the imagination. Things in myth want to soar.”

And soar it did. Above a concrete foundation and scores of wood piling, the palace rose from an asymmetrical base to a height of just under 130 feet, making it the second tallest palace ever constructed for the Winter Carnival. Substantial buttresses and ramparts supported two tall towers topped by slender cones. The shimmery material belied the mass of the structure. Each of the 9,000 blocks of ice, 3.5x2x1.75 feet, weighed between 600 and 700 pounds. At night, with hundreds of red, blue, and green computer-controlled lights blinking in alternating patterns, the structure glowed like some kind of magical midwinter fantasy.

Making that magic wasn’t easy. First came the difficulty of finding an insurer willing to provide a $1 million errors and omissions liability policy. Even fantasies can have structural failures. Then came the task of efficiently harnessing the energy of 700 volunteer workers from local construction trade unions, who showed up whenever they could. Once trained, however, the workers were frequently replaced by greener recruits. The difficulties of working with ice proved a constant challenge to even experienced workers. “You could write a book about what we learned out there about ice,” someone said.

Using a chain saw on the 21-inch-thick ice field, workers cut through the ice and guided the blocks from the frozen surface of Lake Phalen onto a conveyor belt for the trip to the palace. The walls of the palace rose slowly, and midway through construction were only about 20 feet high. The crews began to race the Winter Carnival’s clock to complete the palace on time. But as the walls rose, so did January temperatures, turning mortar to mush and forcing the construction crews to reslush and patch, while laying plastic shields over completed palace walls to prevent melting.

By mid-January it was clear the original palace design had to be scaled back. The architects went back to the drawing board, and eliminated the 150-foot tower, leaving a smaller 120-foot tower as the palace centerpiece and reducing a second tower in height to 80 feet. The overall design was revised to preserve the form and scale of the original, but the construction team remained tense. “The weather was tormenting us. We were afraid that what was built wouldn’t meet everyone’s expectations... When the odds became overwhelming, we were worried we couldn’t deliver,” recalled project manager Scott Thorpe, AIA.

But deliver they did. The ice palace captured public fancy the way few other events in the community’s history have. For weeks after its completion, people streamed by to see it, with estimates of over 250,000 visitors, some of whom waited over two hours in the middle of the night just to drive by.

Even modern fairy tales end, and in late February, the ice palace was demolished. Its magic, however, still lingers... but then, so does the Minnesota winter.

Joanna Baymiller

Ms. Baymiller is deputy director for planning and development at the Minnesota Museum of Art, St. Paul.

News continued on page 21
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Circle 13 on information card
The Institute

AIA Honors Nine for Distinguished Achievements'

A has announced nine winners of 1986 Institute honors recognizing "distinguished achievements that enhance or influence environment and the architectural profession." The honors will be conferred in 1986 at AIA's annual convention in San Antonio.

Thomas R. Vreeland, FAIA, of Los Angeles chaired the jury. Other jurors were Edmund N. Bacon, FAIA, of Philadelphia; Lewis Davis, FAIA, of New York; John L. Field, FAIA, of San Francisco; David Macaulay of Providence, R.I.; Lord, AIA Associate, of Las Vegas; Michael D. Prothe, a student at the University of Oregon.

The winners are:

Antoinette Forrester Downing of Providence, preservation advocate at the neighborhood, city, state, and national level for more than 40 years, cited for her "significant work in the theory, philosophy, and practice of historic preservation, conservation and for her unflagging dedication to the preservation of cultural inheritance for generations to come."

Born in Illinois and reared in New Mexico, Downing graduated from the University of Chicago and later studied architectural history at Radcliffe College and the Rhode Island School of Design. She has written books and numerous articles on regional architecture, starting in 1947 with *Early Homes of Rhode Island*. In 1956 Downing helped establish the Rhode Island Historical Preservation Society and later studied at New York University and Yale University. She taught architecture at Yale from 1948-55, was a Guggenheim Fellow in 1952, and joined Brown's faculty in 1955.

Bill Jordy, professor of art history at Brown University, cited by the jury for his "distinguished contributions to the body of architectural and historical literature."

His two-volume *American Buildings and Their Architects* addresses the development of modern architecture in the context of individual buildings, and his essay on Louis Sullivan's work is considered "the best discussion to date of the problematic relations of Sullivan's ornament to his architecture," according to the jury.

Placzek is active in the Society of Architectural Historians, serves on the New York City Landmarks Preservation Commission, and is an adviser to Columbia's Buell Center for the Study of American Architecture. continued on page 22

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Unless otherwise indicated, the news is gathered and written by Allen Freeman, Nora Richter Greer, Michael J. Crosbie, and Lynn Nesmith.
Institute from page 21

Ervin Robinson, New York City architectural photographer, historian, and critic, sees photographs "dramatize the comple... expose the special strengths, laws and weaknesses of even the most revered work."

Robinson became interested in photography as a young boy after receiving a camera and developing and printing his first photographs. During World War II, he served as an Army photographer and later worked as a staff photographer for Walker Evans.

In 1953, until starting his work for the original American Building Survey (1763-1965), Robinson received a Guggenheim Fellowship to photograph New York City's art deco architecture. His photographs have been featured in several major exhibitions, including "Architecture of the 20th Century" at the Philadelphia Museum of Art in 1973 and "Skyscraper Cities: Art Deco New York" at the Brooklyn Museum in 1975. He is the author of "Architecture Transformed: A History of Twentieth-Century Photography and Architecture," a history of architectural photography and teachings a course on architectural photography and teaches a course on architectural photography and teaches a

AIA's Henry Bacon Award Honors Statue of Liberty

The Statue of Liberty, now undergoing extensive renovation for its 100th anniversary this year, has been selected to receive AIA's 1986 Henry Bacon medal for "excellence in memorial architecture." The award will be presented in June at the Institute's annual convention.

Conceived by the French in 1865 as a monument to commemorate the first centennial of America's independence, the Statue of Liberty came to stand as a symbol of freedom and hope to millions of immigrants.

The statue and its base resulted from a collaborative effort of sculpture, engineering, and architecture. The 300-ton aluminum scaffold that has encased the Statue of Liberty for more than two years is now coming down, and the comprehensive restoration to improve the statue's physical condition and enhance visitor access is scheduled to be completed by July 4 for its centennial celebration.

The awards jury praised the statue as "a most cherished tenet of our country... a magnificent addition to the New York Harbor."

Federal Officials to Discuss A/E Procurement at Convention

Representatives from several government agencies will be presented at AIA's annual convention in San Antonio to discuss federal procurement of A/E services.

Officials from the General Services Administration, Environmental Protection Agency, Air Force, Army Corps of Engineers, Naval Facilities Engineering, and NASA will be available June 9-11 to meet on an individual basis with architects to provide information on procurement of A/E services. The program was devised to allow architects to establish contact with federal agencies and thus increase their access to government projects.

Appointments will be taken at the convention's registration area. For more information, contact Mark Chaplin at Institute headquarters.
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Circle 16 on information card
Pragmatic and Utopian Answers For Gorilla Care and Exhibition

The gorilla is a familiar presence in film and folklore but rarely turns up as the subject of a design charrette. In mid-February 60 architects, zoo directors, and field researchers gathered in Dallas for "Gorilla, Gorilla, Gorilla," an international symposium on the care, exhibition, and propagation of the captive lowland gorilla. The immediate objective of the event—cosponsored by the Dallas Zoological Society and the University of Texas at Arlington school of architecture, with funding from the National Endowment for the Arts—was generating design concepts for a $3 million gorilla habitat at the Dallas Zoo. Like many zoological parks, Dallas still houses its gorillas in sterile steel and concrete cases, so throughout the three-day affair theoretical discussion was tempered by glimpses of harsh reality.

The symposium began with a sobering appraisal of current zoo architecture. David Hancocks, former director of the Woodland Park Zoo in Seattle and the author of Animals and Architecture, said, "Means and methods of enclosure have held all the attention, to the detriment of the space within the enclosure. Great care is paid to the possibility of physical escape, but little is usually done about helping the animals escape from human gaze if they want to, or escape from threats by each other, or escape from boredom. By and large, zoo design standards have been abysmal, from their graphic panels to their letterheads, from their landscaping to their blindness."

Hancocks said that while the situation has been improving of late—notably in the San Francisco, New Orleans, and Seattle zoos—some of the progress has been purely semantic. "People now talk of the 'habitat' instead of the 'cage,' even though the habitat consists entirely of concrete, plastic, and steel," he said. "Others build trees of glass fiber or put metal leaves on plastic shrubs, or paint desert scenes on the back walls, and then call their exhibits 'naturalistic.'"

Participants were divided into five teams, each of which answered 10 key questions concerning everything from barriers and sight lines to climate and disease controls and public education features. Given the size of the group and the diversity of perspectives represented, there was surprising unanimity about the basic ingredients of a good gorilla habitat. "Choice" emerged as the key design concept, giving gorillas the same kinds of options that humans enjoy. For instance, the habitat should be a natural outdoor environment, with trees and water and enough topographical changes to relieve boredom. And the habitat should contain enough secluded spaces for the gorillas to hide or mate, and be large enough to allow the troop to be moved from place to place on a regular basis. Gorillas, by nature, are not conservationists, and can quickly devastate a small habitat.

That man and animals should mingle in the same environment was taken as axiomatic. Participants disagreed mainly about how and to what extent this should take place. "The idea of man entering into the gorilla's environment is less important than creating a gorilla environment for gorillas," said Peter Chermayeff, AIA, of Cambridge Seven, architects of the New England Aquarium in Boston and the National Aquarium in Baltimore. "The visitor should be in the position of a privileged interloper."

Hancocks argued for more co-mingling, that the only way to learn reverence for the gorilla's environment is to experience it. "One reason that gorillas are in trouble is because of the images that zoos, circuses, and Hollywood perpetuate," he said. "How do you make people aware of this without imposing them in the environment?"

The specific design proposals ranged from the pragmatic to the utopian. One called for constructing a large glassed pavilion in the center of the habitat, with a secondary viewing trail circling the perimeter. Another involved cutting a deep pedestrian canyon, which would zig and zag its way through the middle of the habitat to simulate the visual experiences a visitor might have in the wild. In all schemes the gorillas are separated from viewers by an assortment of moats and berms, and always reside at or above eye level. Nobody likes being looked down upon.

All proposals will be studied by the Dallas Zoo staff, with the best ideas incorporated into a formal design program to be distributed later to interested architects and landscape architects. The zoo hopes to open the $3 million facility in the spring of 1988.

Implicit in most of the discussions was a recognition that architecture and design can do only so much for the captive gorilla. Terry Maple, director of the Atlanta zoo, reminded the participants that scientific research is even more important, and that advocates for good zoo design need to be equally adamant about supporting research facilities and international conservation efforts.

Ann Pierce, who worked with both primate expert Jane Goodall and the late Dian Fossey, went a step further by urging zoos to establish a kind of gorilla emigration policy, through which young captive gorillas could be moved from unsatisfactory environments to better zoos in order to learn basic social skills. "Too many zoos get hung up on the prestige of having a gorilla, even when the gorilla would clearly be better off elsewhere," she said. "The real issue is what is best for the gorilla and the species, not the institution." DAVID DILLON

St. Bart's Plans Lawsuit After Third Denial for Tower

The New York City Landmarks Preservation Commission has rejected a third proposal by St. Bartholomew's Church to raze its historic community house and pay for repairs and maintenance of the building. Soon after the commission's 8-to-0 vote church leaders announced they would see a court order to obtain permission to construct an office building on their landmark site on Park Avenue between 50th and 51st streets.

In this application, the church had argued that the denial of the proposal to build a 47-story office tower would cause "extreme economic hardship and other hardship." The two previously rejected applications were requested for "certificates of appropriateness" for specific design proposals, both by Edward Dure Stone Associates. (The first was a 59-story tower of reflective glass; the second was a similar 47-story building with a brick and limestone base.) The city's landman law allows the owner to apply for a permit to alter, demolish, or build based on hardship if the owner's design proposal rejected as inappropriate.

The battle over plans to build a tower has divided the congregation for seven years and cost the church approximately $1.6 million in fees. Supporters of the development scheme argue that the church needs the estimated $3 million rent the building would generate annual to provide revenue for social service programs and pay for repairs and maintenance of the building. The tower would also provide 60,000 square feet of administrative space for the church to carry out these social services.

The church's hardship application was repair and renovation costs at $11 million over the next two years, while critics continued on page
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Challenges from page 28 of the plan, including some parishioners, contend that the repairs and maintenance costs are inflated and unsubstantiated.

Ronald Alexander, a tax attorney who had served as chairman of the church’s vestry building committee until he resigned last year over the tower proposal, commissioned a study that found the church actually had $6.4 million in unrestricted funds that could be used for maintenance and repairs.

After the overwhelming rejection of the hardship case, the rector of the church, the Rev. Thomas Bowers, said that the court is the one place where their case will be heard and justice done. “We have come too far not to go on,” he said.

The commission’s denial of the proposal interferes with religious freedom and is a violation of the church’s First and Fifth Amendment rights, according to Fletcher Hodges, chairman of St. Bart’s real estate committee and a member of the vestry.

The neo-Byzantine church was designed by Bertram G. Goodhue and completed in 1918; the community house by Mayers, Murray & Phillip was completed 10 years later. In 1967 the complex was one of the first buildings designated a landmark under the city’s preservation law. Lynn Nesmith

Architects Join Forces For Nuclear Disarmament

Architects, Designers, Planners for Social Responsibility has been continuing its efforts to raise the profession’s consciousness on the threat of nuclear weapons and their proliferation. The group is a national organization, the result of the merger of the Architects for Social Responsibility founded in New York City in 1982 and ADPSR founded in 1981 in California. The two united efforts in 1984, now claim a membership of 2,000, and have chapters in Los Angeles, Northern California, Seattle, Phoenix, Tucson, Chicago, Washington, D.C., Philadelphia, New York City, and Boston.

According to Tician Papachristou, FAIA, ADPSR’s national president, the group hopes to expand its membership and chapters by raising funds that would then be used for mailings and publicity. Last year the New York chapter raised $75,000 from an auction of more than 200 drawings by architects such as Michael Graves, FAIA, Richard Meier, FAIA, Ricardo Bofill, and Robert Krier.

The group recently joined the Professionals’ Coalition for Nuclear Arms Control, based in Washington, D.C., which includes the Physicians for Social Responsibility, Lawyers Alliance for Nuclear Arms Control, and the Union of Concerned Scientists. “This group has close contact with Congress and passes information to congress people regarding nuclear arms control issues,” explains Papachristou. “Through the coalition, ADPSR will be guided and given information on conducting local briefing programs with our own congress people,” he adds.

ADPSR is also seeking to affiliate itself with other groups globally. In May, Papachristou and three other ADPSR members will travel to the Soviet Union at the invitation of the president of the Soviet Union of Architects. “We hope that it will maybe be the beginning of an exchange of exhibits and students, and even visits here by Soviet architects,” Papachristou says. ADPSR has also been in contact with professional organizations in Great Britain, China, and West Germany, and is planning to be a part of the congress of the International Union of Architects, scheduled for July 1987 in Brighton, England. Papachristou says that a resolution on nuclear disarmament similar to the one AIA passed at its national convention in 1982 may be considered at the UIA congress. ADPSR programs for this year’s AIA convention are still in planning stage, reports Papachristou.

News continued on page 1
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mering. Such are among the subjects
captivate architectural photographer
ell Anson Kenyon. A resident of Mary­
, he is also a teacher and has exhibited
ly during his 40-year career.
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ially, to fasten on remnants of the
destined for the wrecker’s ball, per-
in part because they go unnoticed,
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rea Oppenheimer Dean

‘Barn on a hillock’; above, ‘Brunswick
pass’; right, ‘Bridge over Antietam
k.” continued on page 38
Above, 'Monocacy River Farm. ' Below, from left, 'Amphi-
ter, Arlington National Cemetery, 'Precise Shadows, Trinity Bre-
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Nothing else gives the smooth illumination of a good ceiling wash. It's the best of all techniques when a room has reflective surfaces like polished tabletops or glass-covered artwork—or a swimming pool.

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This month interiors move up front, occupying our entire central editorial section. In addition to our newly inaugurated interiors section, we intend to continue devoting at least one issue a year to them.

In a sense, of course, every issue is an interiors issue. Virtually every building presentation that we do includes significant coverage of the building’s interiors—just as nearly every presentation in this issue includes at least one exterior photo. For we believe that interiors are an integral part of architecture—indeed, the act of building is in essence the creation of interior space. And one measure of a work of architecture’s success is the affinity between interior and exterior design.

In this as in past interiors issues we are concerned more with design than decoration. We are interested more in such architectural concerns as space, light, and figure than in appointments and adornments. And after a set of individual works we look at the relationship of interior design to two rather basic human functions: eating and healing. D.C.
Sculpture To Climb Through

The Boston Children's Museum. Tom Luckey, architect/sculptor. By Michael J. Crosbie

At first glance, it looks like a buoyant cloud of free-form sculpture, just floating above your head as you ascend the main staircase in the Boston Children's Museum. But then you notice movement in this cloud of plywood and steel mesh, children bouncing inside it. The work of architect/sculptor Tom Luckey, this creation fully qualifies for one of the most elemental definitions of architecture: art that one can physically inhabit.

The Climbing Sculpture, as it is called, is intended for use by a special group of people, those under five feet tall. Its myriad wooden platforms, which take the form of colorfully stained swirls and curls, are suspended from a forest of steel pipe hung from the ceiling. The platforms, a dozen in all, grow up and out to fill the void of the staircase, the delicate mesh defining the perimeter shape. Visitors enter on the second floor of the museum, stepping out into the void, and then make their way up through the levels, some of which overlap each other sandwiching a little more than a foot of space. The top of the interior is defined by a horizontal layer of mesh. There seems to be an infinite variety of space: tight little corners to crawl into, larger expanses to swing through on poles. For safety's sake, it is impossible to fall more than three feet through the cracks, all the platforms are surfaced with low-pile carpet, interior platform edges are rounded and covered with vinyl.

Describing the intent of his creation, Luckey says that "it's all about the space between the platforms. I tried to make it something that you'd squirm into and out of and cruise around to slow the physical process down, but make it challenging." To design it, Luckey worked primarily in model form, cutting the squiggles from cardboard and pinning them together with wood dowels. He built the platforms in sections in his shop in Branford, Conn., carefully coded each of the 95 pieces, loaded them onto a truck, and took them to Boston. With the help of his wife, Ettie, and a small crew Luckey then assembled the sculpture. Fifty pieces of pipe, two feet on center, were bolted into 6x6 timbers resting on the museum's top floor. Working the numbers, Luckey raised each platform into place, starting from the top and working down, and secured them with metal flanges. Then the platforms were enveloped in wire mesh. The result appears to be so delicate that it could sway, but it's actually quite rigid.

In use, the Climbing Sculpture has been a huge success. Kids pile in, wriggle around, jump, crawl, climb, and swing, usually with an accompaniment of screams of delight. As the kids work their way through (no two taking the same route) adults can follow their progress from the staircase. Occasionally this causes traffic on the stairs to stop dead, and there are signs posted to keep moving. At the top of the sculpture there is a small gallery for observation. The occupants bubble up through the interstices of the sculpture, "like it has liquid kids in it," says Luckey. "It's a way of combining sculpture with dance."
A Combination of Audacity and Skill

Northpark Mall, Ridgeland, Miss. RTKL Associates Inc. By Robert A. Ivy Jr., AIA

Malls are the basilicas of our time. In an age of heroic materialism, where consumerism is a "lifestyle," the agora (where we gather to meet, eat, and spend our resources) has evolved to epic proportions. Northpark Mall is a fascinating comment on our culture for its irreverence.

Northpark ticks. RTKL Associates, Inc. of Baltimore maintained a deft, light, but firmly controlled hand in the design of this 300,000-square-foot shopping mall near Jackson in Ridgeland, Miss. The designers organized the major spaces sequentially, considered man's route through the maze and what he sees, controlled the scale of the large building and its relationship to the shopper, all while maintaining a consistently happy, humorous tone in large and small details.

The operating style at Northpark is jolly postmodernism. The developer, Cadillac-Fairview (U.S.) Ltd., clearly allowed the architects a great deal of rein. The result is like the Moore/Turnbull Wonderwall tastefully cleaned up in a commercial setting.

Evocative, associative forms bring wit and joy to spaces that are dead serious in other hands. Babylonian Trump Tower, earnest in its splendor, is the antithesis of Northpark, whose light-hearted historicism offers different levels of appreciation—the back of an elevator can be viewed simply as wall, or as the clever evocation of a cornice profile blown up to gigantic proportions. Storeowners and shoppers take obvious delight in the design, while every architect within 150 miles has traveled for the fun of seeing Michael Graves' Portland building (the elevator) consumed within Philip Johnson's AT&T building.

For all its exuberance, Northpark is well designed. From the outside, the large building shell does not differ significantly from its contemporaries; four small scaled entry peristyles and porticoes give few hints of what lies within. Initial passage through portals and quick, low anterooms is not unlike entering scores of other shopping malls. Excitement lies within.

The interior axes are carefully calculated and controlled. In one direction the main corridor, filled with trees and light, lifts up to a second level, topped by the barrel arch of a skylight. A full view to the anchor store at the end of the spine is interrupted by a built form in midstream. What lies on the other side? Smaller spaces open into larger ones, Italianate stairs alter the visitor's perception, turning and twisting upward, painted fresco bring the outdoors inside. Added to the sense of discovery are some of the qualities of the street where varied storefronts pop in and out, awning or three-dimensional signs intrude into the open corridor, and neon glows.

Color, from jade green through terra-cotta to hot pink, divides the larger whole into parts. Lighting emphasizes these colors while adding to the texture of the spaces, high lighting ficus trees set in terra-cotta pots or tree grates and casting shadows of park benches onto the pavement.

Despite the high level of design at Northpark, this shopping center shares the limitations of its building type...a mall is a mall. As such it cannot match the vitality of the simplest shopping street, where time, accretion, and anomaly have enriched the fabric. It is impossible in Northpark to experience the delight of catching the lilting aroma of steaming hot dogs—food is consigned to a charming food court safely tucked away on the second floor.

And for all its careful control of axes, the returning shopper may chafe at the lack of clarity, at having to bypass obstacles to reach a destination.

What the mall attempts, it succeeds at. Northpark Mall is colorful, light-hearted, and pleasant, welcoming, allusive, and fun. There is a twinkle in the eye of Northpark today, yet one wonders how long before the twinkle hardens into a glaze.

Mr. Ivy is a Mississippian who writes on regional design.
Right, apparent complexity under a barrel vaulted skylight. Below, planters and stairs in one of four courts on mall's major axis. Below right, food court on upper level as a garden party setting. Here tree cutouts march the length of room, with real (ficus) trees clustered under cloud forms. One side of court has a reflective ceiling next to trellised arcade over the food stands. Facing page, an architectonic stair tower interrupts the flow through main corridor.
The Theme Is Architecture

*Arts shops, Chicago. A. Epstein & Sons. By Nora Richter Greer*

Chicago is a city that prides itself on its architecture. So, what better way to identify five of the city's cultural institutions than with fragments of the buildings they are housed in? This is exactly what Sheldon Schlegman of A. Epstein & Sons Inc. did when designing the Marketplace for the Arts.

The Marketplace is a cooperative gift shop representing the Chicago Symphony Orchestra, the Lyric Opera of Chicago, the Museum of Contemporary Art, the Field Museum of Natural History, and the Chicago Historical Society. Located in the lobby of the Associates Center building (also designed by Schlegman) at the northwest corner of Michigan and Randolph, the 61,000-square-foot store was established for two purposes: to generate income for the five organizations and to "encourage public awareness of their cultural activities," in Schlegman's words. The store's design needed to conform to a specific future use: a Centennial Museum for Commonwealth Edison.

With the aid of Linda Levin, AIA, Schlegman first created a "stage." The concrete floors were left exposed, the walls were covered with only a brown coat of plaster, and the ceiling was
ted black. On this stage, in a witty, tongue-in-check gesture, Eganman placed the architectural fragments. The entrance to the store is marked by the second story of the arched facade of Nextra Hall (photo left). Just beyond the arches and to the is a ramp that is fronted with a column and truss, mod­after the entrance to the modern-era Museum of Contem­py Art. The ramp leads to the stage, where exaggerated Ionic columns recall the colonnades of both the Lyric Opera House the Chicago Historical Society. Three steps down and in the center of the room is the store's most fanciful archite­ caricature: the Palladian temple of the Field Museum, with and cornice dominating the center of the store. In this case cornice sits on half-size columns that rest on display cases with valuable artifacts and jewelry.

While obviously creating a whimsical mood in the shop, the architectural fragments also serve to break up an otherwise open e, conceal the structural columns, and display merchan­at a minimal cost. For example, three of the columns on stage contain display cases that open to the rear wall, where ers are stored and displayed. And since the store is only aorary one, the materials used are strong enough for this os yet inexpensive: particleboard with plastic laminate ters, columns of Sonotube concrete forms, a curved wall of one wall of perforated metal on which are displayed T-shirts, ing cards, clocks. Colors were kept neutral—grays and off­—to avoid competing with the merchandise. 

ARCHITECTURE/APRIL 1986 51
Looking at the offices of an interior design firm is a little like reading a person’s palm, since it reveals strengths and weaknesses, likes and dislikes. Judging from its own recently completed office, Design Collective of Columbus, Ohio, prefers solutions that have an elegant, seamless look enlivened by humor, while disdaining the pretentious, stuffy, or trendy. As Vice President David Cook corroborates, “We like to choose traditional architectural elements or representations of them, to pull from forms that are familiar and have worn well.”

The plan of the 5,000-square-foot area is a simple rectangle with all spaces flowing from a central corridor. To one side of the corridor by the entry is a reception space, to the other a conference room; then comes the “resource center” facing the partners’ offices; and leading off the end of the corridor is the design workroom.

The little reception area immediately sets the overall tone and feel. Playing against light oak floor and neutral (but never white) walls is an archetypically modern, skewed red cube as desk that coexists peaceably with a little antique table, white wicker chairs, and an Oriental scatter rug. The look is uncluttered.

Just one step up, on the other side of the corridor, is the conference room with sandblasted sliding glass doors trimmed in red. Walls and their trim are treated with sprayed laminate for an ultra smooth look. The room’s only contents are four square tables trimmed (again) in red, plus a coven of elegant black chi designed with turn-of-the-century architect and artist Josef Hoffmann in mind. Audiovisual equipment is concealed and operated from behind a wall.

The corridor itself is flanked by arched niches in which are posed easily movable giant pencils. The arch marking the entrance to the design work spaces is, again, glazed with sandblasted glass trimmed in red, and in front of it rests another movable object this time an obelisk.

The working hub of Design Collective’s offices is the designers’ work area, which, with partitions of different height serves also as a design display space. At its center are a round table and chairs used for meetings, gab fests, lunch, and parties, and as a distinctive marker for each department is a giant umbrella.

Indications are that the designers of these spaces are endowed with abundant good taste and a sense of humor.

Left: top, reception area, conference room; middle, ‘resource center’; bottom, design workroom. Right, central corridor flanked by giant pencils terminated by obelisk.
All the world's a stage, as we've been told, that corner of it cupied by the fashion industry is more worldly than most.

What more appropriate design for the offices and design department of an importer and maker of young women's clothes than a trendy stage set? This is just what Brown Matarazzi Associates of San Francisco created for the Santa Cruz Co. of Brisbane, Calif.

The new digs are a confabulation of plasterboard and plywood partitions and adorned mostly with bright colored lattice, on, and paint from the same palette Santa Cruz is using for boutiques in major department stores. To heighten association with the theater, these spaces have been implanted in an warehouse whose underbelly of original construction, over insulation, and mechanical equipment is left exposed. And though very "now," Santa Cruz' new habitat can be easily jacked down to become very "then" as soon as "then" rolls und.

Besides wanting a flexible design with a zippy image, Santa Cruz insisted on a tight budget. Hence the use of inexpensive materials and decorative touches. And they wanted spaces that would heighten employee interaction," meaning spaces good shop talk at places where people would tend to bump into each other. This is why Brown Matarazzi decided to concen-
design effort and dollars at a few obvious gathering places.

The first is the main corridor, which they covered in a harlequin tile and dubbed "the street." To underscore the village logy, they varied the heights of walls lining it, topped them with brightly framed windows, giving people at work glimpses of action on "the street."

The designers further marked out three places on "the street" where people were most likely to congregate—outside the president's office, the employees' lounge, and the design department. They widened each, cocked its axis, and covered or marked out tops to create "pavilions." (The original scheme, rejected for budget reasons, made these larger and included seating.)

Spaces away from the main traffic are very workmanlike, though the employee lounge was given a likeness to sidewalk cafes. The design room, for instance, was left as loft space whose main embellishment consists of large, cross-patterned fluorescents suspended over each work table and funky colored window frames, the windows having been punched out through the concrete warehouse walls to bring in natural light.

Of the old warehouse's 65,000 feet of space, 48,000 are used for storage. Another 5,000 were converted by a previous tenant into offices with dropped ceilings and is now Santa Cruz' finance department. The rest retains the feel of the building's gritty beginnings, if one looks above the stage sets marking out offices, design department, marketing department, conference rooms, and the like.

One would expect the players on this set to be in costume. And they are, of course, fashion being the costume of the day.

Design effort was concentrated on corridor, dubbed 'the street,' and on three pavilions at strategic points along the route. One pavilion is seen from inside president's office reception space, left, and from outside it, right. The intention was to encourage informal meetings and create a 'look' through use of red lattice, bright colors, bold tile, and varying partition heights. Below left, a neutral-wall conference room with lattice and a touch of neon.
Italian Del 'Uncovers Relics'

Lakeside Delicatessen, Oakland, Calif. Ace Architects. By M.J.C.
Ace Architects' David Weingarten and Lucia Howard of dand, reveals their special talent for historic fabrication. They

s renovation of the Lakeside Delicatessen in Oakland, Calif., reveals their special talent for historic fabrication. They

gained that as the interior of the 1930s Italian deli was

tantled, an amazing archeological discovery was made. Bur­
depth within the structure were found the remnants of a

iunda. One of its walls bore a faintly painted bust of Bacchus,
ding the architects to surmise that this rotunda, similar in its

tails to Rome's great Pantheon, was dedicated to the deifica­

tion of food. At its apex, covered with framing and plaster, was

tovered an oculus. Further excavation of the floor revealed

figure of the Roman god Triton, son of Neptune and Salacia,
ting to a hallway beyond the rotunda. Weingarten conjec­
ted that this passage, also depicted in the rotunda's mural and

dered as a forced perspective, at one time served as a mar­

place that extended beyond the building's rear wall. Based

these artifacts the architects' charge became clear: restore

rotunda and marketplace as an appropriate setting for the deli.

atrons now enter directly into the rotunda, which serves as

ning area with typically Italian counter service. In the rotun­
on's new niches are shelves displaying Italian delicacies, illumi­

ded by a sweep of sunlight from the oculus. On a wall framing

room entrances is the mural as painted by the architects,
y Choi, and Joseph Ruffatto. The colorfully decorated ter­
z floor bears the image of Triton, who directs us to the

de, lined with shelves and refrigerators displaying more

goodies, and a counter for placing orders. The skylit arcade,

its walls decorated with leafy boughs, can also be viewed from

a loft with secluded seating.

The arcade continues out into a back garden, suitable for

lunching al fresco. Here stand four spiral metal columns, sup­

porting a lattice that sports the simulacrum of the painted boughs

side, but rendered in green steel mesh. Spiral columns are

also found in the arcade and at the entrance to the rotunda,

and their presence in the garden seems a stylized version of the

columns of Bernini's baldacchino in St. Peter's. It is said that

the bronze for Bernini's baldacchino was looted from the Pan­

theon, so these columns are right at home.

The garden culminates in a fountain populated by Neptune

and his son. They are meant to represent the deli's owner, Edward

Curotto, who recently assumed the business from his father.

Curotto's family is from Genoa, the Italian fishing port, and so

Neptune and Triton are familiar faces. Curotto says that his

patrons think the new deli is "super" and faithfully ethnic. "A

couple of people have said that they just got back from Italy,"

Curotto reports, "and the deli makes them feel like they're back

there."

Across page, above and below, interior of deli's oculi ed rotunda,

with display shelves, counter service, and decorative mural.

Above, clockwise from left, entrance to deli; arcade with view

towards rotunda; back garden with arcade and fountain.
Schenley was the grand hotel of Pittsburgh for about 50 years from the day it opened in 1898. Presidents from Theodore Roosevelt to Eisenhower stayed there, Lillian Russell lived on the fourth floor and married a millionaire in the Louis XV ballroom, and another actress, Eleanor Duse, died in Suite 524.

The building, 10-story presence designed by the New York City firm of Rutland & Russell in Pittsburgh’s Oakland section, the grand hotel of Pittsburgh for about 50 years from the day it opened in 1898. Presidents from Theodore Roosevelt to Eisenhower stayed there, Lillian Russell lived on the fourth floor and married a millionaire in the Louis XV ballroom, and another actress, Eleanor Duse, died in Suite 524.

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Offices, Gardens Roofed by Tents


From the exterior, the Bradford Exchange looks like any of the other one-story, nondescript rows of chain-store outlets, car dealerships, and warehouses on Waukegan Road in the Chicago suburb of Niles. However, walk inside and a fantasy unfolds in front of your eyes. Designed by Thomas Hickey, AIA, of the Chicago firm of Weese Hickey Weese, the interiors have been transformed into an exotic mixture of tropical gardens, shimmering tents, plate museum, and corporate headquarters of the world's largest exchange of collector plates.

The biggest surprise is the series of translucent, silicone-coated, glass fiber tents that reach as high as 38 feet at the peak and as low as six feet at the edges. During the day, the tents appear translucent, being top lit by fluorescent tubes. At night, they take on a yellow glow, being lit by spotlights set on the poles, a mirage-like image when seen through the glass facade. The poles are not placed in a uniform pattern; some are tilted to allow for the grid of office partitions below. A mirror covering the entire rear wall is disorienting at first, but then works to visually enlarge the space.

The tents are actually a clever way to conceal the connection between what was once a discount store/warehouse to the south and a former car dealership to the north (which is owned by the Bradford exchange but is not yet renovated). Weese Hickey Weese renovated the discount store in 1977; now, the two-level, 55,000-square-foot addition of office space underneath the tents and between the two buildings has allowed for an expansion of the museum in the southern building, where collector plates rest on plastic boards hung from the ceiling.

In addition, running west to east in the southern building is a multilevel, 30x113-foot garden, complete with a flowing brook. To complement this, a second, multilevel garden runs north to south into and underneath the tents. The new 30x200-square-foot garden has a small stone amphitheater, two frosted glass bridges overhead, and a waterfall. In total, there are 30 varieties of tropical plants. This tropical theme is repeated in a small garden near the entrance.
Emergency Unit
Puts a Welcoming Face on a Hospital

Baptist Hospital emergency unit, Miami.
The Ritchie Organization. By A.O.D.

Hospitals have become highly competitive businesses, and use of stricter federal and private health insurance reimbursement requirements, many, including the Baptist Hospital in Miami, have experienced a drop in inpatient admissions and a number of days patients stay per admission. Emergency departments are, in the words of Baptist's administrator, Jim Keelay, "in a unique and strategic position to support the hospital's corporate objectives" by attracting patients. One-quarter of emergency visits already result in an inpatient admission. And, increasingly, people are using emergency rooms for problems previously took to their private doctor, since emergency rooms, unlike doctors' offices, are always open, require no appointments, and provide immediate access to specialists and high-tech equipment.

Among the happy consequences of Baptist Hospital's attempt to attract patients and gain the allegiance of people visiting its emergency care department is that they are treated like royalty, or at least like hotel guests. Staff members are put through a "guest relations" program emphasizing courtesy, friendliness, and the like. Each patient is seen by a physician or nurse in five minutes of arrival, parents are allowed to stay with their children while they are being treated, and there is a volunteer to act as liaison with the treatment area to obviate long waits without news by relatives.

Baptist's administration also saw design of its new, 14,000-square-foot emergency care department as an important tool for selling patients on the hospital.

Architects TRO/The Ritchie Organization of Chestnut Hill, Mass., attempted to create the calming feeling of an interior courtyard that continues the Renaissance motifs of the exterior (below), with brick vaulted ceilings, tile pavers, columns, arches, soft pinks, yellows, and greens. The plan splits into two areas, the one for walk-in patients and a business office, the other for an ambulance entrance and clinical services.

The lobby (left) for the walk-in clinic is marked by a large skylight with an overarching oak tree whose leaves act as light filters. There is also a skylight over the nurses' station in the clinical portion of the facility to the rear. Artificial light is, for the most part, incorporated into architectural details such as cornice lines. Hard and cold-looking high-tech machines tend to be concealed behind built-ins or camouflaged by soft fabrics.

All in all, this is the least institutional of emergency departments and looks far more enticing than most examples of the building type it emulates, the American hotel.
Left, the nurses' station overlooking more institutional-looking corridor the treatment area is a reminder that this is, after all, a hospital. Right, administrative counter in the patient walk area.
Redesigning Health Care

An effort to humanize the hospital environment through both physical and institutional change. By N.R.G.

In a small section of a moderately sized hospital in San Francisco, a quiet revolution is taking place. Gone is the typical sanitized hospital decor—cold aluminum and stainless steel, linoleum, fluorescent lights, and hard, painted surfaces. Instead, the design esthetic is comfort and hominess: wood, carpeting, incandescent lights.

Gone, too, is care that often can be best characterized as dehumanizing, depersonalizing, frightening. In its place is friendly congeniality and highly personalized attention.

The hospital is the Pacific Presbyterian Medical Center in San Francisco. There in June 1985 the first medical-surgical hospital unit of its type in this country opened its doors—the 13-bed Planetree project’s unit. So far, it has been a resounding success, one in which the physical environment and the patient care work in tandem to create a non-institutional ambiance.

The seed for Planetree was planted 10 years ago when Angelica Theiriot, environmentalist and health-care advocate, was hospitalized with a mysterious, life-threatening virus. “That was a nightmare,” she recalls. “I was shocked by the bungling and constantly changing staff. At one point, I was left slumped over in a wheelchair outside X-ray for 45 minutes with a fever of 107 degrees. Later I thought to myself, ‘I’m basically young and strong. What happens to people who are less sturdy, less capable of making demands?’” Theiriot’s experience and others’ family members lead to her realization that “things had to be done differently,” she says. “Many of the most important moments of people’s lives are spent in hospitals. Yet, for the most part they are the coldest and ugliest places on the earth.”

Meanwhile, Roslyn Lindheim, an architect and professor at the college of environmental design, University of California, Berkeley, was thinking along similar lines. Lindheim found that in area hospitals where she was consulting, as well as in other hospitals, “something desperate had to be done,” in her words, to improve the quality of the environment.

Determining ways hospitals could more humanely fulfill patient needs was precisely what Theiriot wished to address. She found a nonprofit group named Planetree and invited Lindheim and prominent Bay Area physicians, health-care professionals, civic leaders, and cultural leaders to work with her to develop an alternative to traditional hospital care, one that would emphasize maximum participation by patients in all aspects of treatment.

“We researched everything,” Theiriot says, “from the environment, to nursing care, to food and the role of arts in healing. . . . Most modern health professionals will readily admit that the patient’s state of mind is a major factor in the success of the treatment, yet nothing in the design and operation of the modern hospital reflects this knowledge.” The Planetree group determined that the most crucial social, emotional, and esthetic needs denied routinely to hospitalized persons were “supportive human relationships, physical comfort, independence, as much pleasure as is possible under the specific circumstances of a hospital stay, and a sense of autonomy and dignity,” according to Theiriot.

By early ’84 Planetree was ready to test its findings in a hospital setting. After long negotiations, the group finally reached an agreement with Pacific Presbyterian Medical Center to renovate one of its 18 units into the 13-bed model unit, which would house patients with a broad spectrum of illnesses such as strep cancer, AIDS, and kidney failure. The transformation of the unit was neither complicated nor exorbitant, with the renov
the traditional nurses' station has been replaced by a more formal oak work counter. The windows beyond look into the unit's lounge. Basically, the unit's central area was reconfigured to allow for a patient lounge and kitchen, which bring a feeling of hominess to the unit.

Of the 2,000-square-foot unit costing $175,000. Upon opening June 15, 12 doctors had agreed to refer patients to the unit; now 62 do. According to Robin Orr, the Planetree executive director, the cost of hospitalization is the same as in other identically sized, although unrenovated, units.

Patient rooms in Planetree are set in a squared-off horse-shoe around a central work space, with a hallway separating patient rooms from the work space, a layout similar to the other medical-surgical units in the hospital. However, the Planetree unit's central area has been completely reconfigured; it is where the philosophy of Planetree is most visibly evident. Rather than orienting that space to the needs of the nursing staff, it is designed to be used indiscriminately by nurses, doctors, and visitors.

According to Lindheim, the transformation progressed as follows. First, the shower room for disabled persons was moved across the hall. The former shower room was then converted to utility space. By reconfiguring the freed utility space and former nurses' lounge, Lindheim was able to provide a rectangular-shaped kitchen, complete with refrigerator, stove, electric burners, microwave oven, sink, and storage cabinets.

It opens onto a small, cozy lounge, a place that feels most like somebody's living room, and perhaps more importantly, a portable area where a patient can escape from the drudgery of spending hours upon hours in a hospital room.

The most revolutionary change, though, was eliminating the traditional nurses' station, where typically a counter separates patient from nurse. In its place, an oak work counter has been dished up against the kitchen wall. At one end, the counter is about three and a half feet and becomes a small work/reference table; at the other end, the counter follows the contours of the lounge enclosure. By this stroke, Lindheim has symbolically transformed what has been a "we/they relationship to us," as she says.

The patients' rooms, budgetary constraints allowed for only 18, but significant changes (under the direction of Lindheim and interior designer Victoria Fae). Instead of the usual white drapery around each hospital bed, the curtains at Planetree come in a veritable pastel rainbow, with each room taking on a different hue. In addition, soft floral sheets were introduced, as were bookshelves and bulletin boards where patients are encouraged to store or hang personal items.

Now, parts of the rooms that were untouched seem almost paradoxically institutional: the television poised high over head, metallic stand that is attached to the wall by a metallic arm; hospital bed so bulky that if a patient is sitting up he/she quite reach the phone on the hospital-vintage bedside table. This takes place underneath glaring lights that now seem more unpleasant compared to the soft incandescent lighting in the unit's central space. (Only the lights around the nurses' station are fluorescents.)

Lindheim admits dissatisfaction with only being able to go
hospital paraphernalia are scattered around the hallways and so far with the patients' room. She had wanted to make the larger, the room sizes would vary, and there would be additional space for families to stay overnight and nonbedside places for patients to have medical and other services.

Throughout Planetree, Lindheim sought an uncluttered environment, one that shows "respect for space and a sense of order." For example, in other units, medical carts, linen bins, and other hospital paraphernalia are scattered around the hallways and nurses' stations. In Planetree, such equipment and supplies are housed in oak paneled corner or side cabinets, or neatly tucked in closets. Even the necessary movable carts are oak and can be slipped into one of the "garage" cabinets. Other finishing touches are floral-bordered ceramic tiles that identify the rooms by number, operable windows, acoustical treatment on the core area's walls that along with the carpeted floor significantly lower the noise level. And, too, in an attempt to "get out of the square," in Lindheim's words, she changed two of the lounge's corners into diagonal walls with slotted windows. From inside, one can see out, yet there is still a sense of privacy.

While these design changes are crucial to the success of Planetree, Lindheim is quick to acknowledge that the changes in the physical environment would not have the same overall effect without like changes in the hospital services. One major move was to primary nursing: each patient now has one nurse who is responsible for coordinating his or her care throughout that patient's stay. The benefits of this type of care are explained by Maggie Phillips, Planetree's nursing coordinator: "As a result of hospitalization, patients frequently feel stripped of their power and individuality, which can be very frightening. These feelings are then exacerbated by constantly rotating care givers. In many hospital situations, it's not uncommon for a patient never to see the same nurse twice. But the loss of identity that so many people experience is mitigated significantly by primary nursing."

Each patient is encouraged to participate in medical discussions with doctors and nurses. To facilitate this Planetree supplies detailed information on specific diseases, as well as diagnostic tests and medications. Additional information can be obtained from Planetree's Resource Center, a 2,000-volume resource library that opened in July 1981. "Patients who are well informed about their conditions and who take part in medical decisions will become well sooner than others," Theiriot says, and adds, "One of the main functions of a hospital should be to teach people how to stay out of hospitals in the future."

Even care that is normally highly routinized has been personalized. For example, patients can participate in a self-medication program. And, whenever possible individual sleep schedules are not interrupted by meals, tests, or the administration of drugs. Great emphasis is also placed on family involvement. Visitation privileges are extended to 24 hours a day, and family members are encouraged to stay overnight, sleeping in the lounge if necessary. Planetree also recognizes the importance of proper nutrition, especially when a person is ill." The small kitchen often becomes the laboratory for the patients and staff nutritionist.

Overall, Planetree has adopted the healing philosophy of ancient cultures, particularly that of the ancient Greeks, where

Right, the patient lounge and the nurses' work table exemplify the architect's 'respect for space and a sense of order.' The small, rectangular kitchen, below left, and the patients' lounges below right, are used by patients and staff, rooms that feel like someone's home rather than a hospital.

nature and the arts were seen as an integral part of patient care. Planetree's reasoning is as follows: "The Greeks of Epidaurus combined the most advanced medical techniques of their time with a healing environment that was designed to stimulate the patient's love of life and his will to recover." And like the Greek Planetree "is striving to create an optimal environment for healing by combining the arts with the latest scientific technology. At Planetree, art and music have taken such forms as Sony Walkmans and tape cassettes of classical music to jazz to environmental sounds. A VCR in the lounge offers a wide range of movies. There are books of poetry, fiction, photography, etc.

Highly influential in the development of the Planetree philosophy was the consumer movement of the last two decades. Particularly medical self-help concepts such as alternative birthing centers and hospices. "The alternative birth center represents an attempt to duplicate the amenities of a home within the technological environment of the hospital," Lindheim maintains.

Lindheim traces the beginnings of what she calls "disturbance trends" in hospital design and services to the early 1960s. As she wrote in CoEvolution Quarterly (Winter 79/80): "In the early 60s, with the overriding emphasis on technology and efficiency as the most important concerns of personalized patient care we overlooked. As hospital facilities grew larger and postwar technology continued, the paramount architectural issue was no longer the most caring way to accommodate the needs of the sick but how to build flexible forms to house constantly changing technology. The '70s witnessed, Lindheim continued, "an architectural response to the increasing gigantism of the modern medical complex that has tended to be cosmetic and visionary, accommodating mechanical rather than human needs." Planetree is a direct reaction against this tendency.

While Planetree has already received praise for its quality care, it will be up to the University of Washington and the RA Corporation to evaluate the whole program. The evaluators will compare the long- and short-term progress of Planetree patients with others in the more traditional wards in the hospital. Examined will be psychological well-being, health status, patient satisfaction, length of stay, incidence of rehospitalization, and overall cost. Also assessed will be the feasibility of other hospital replicating the Planetree model.

In the end, Theiriot hopes that Planetree "becomes a prototype that is adapted in hospitals across the nation." Even if it doesn't come to fruition, it seems clear that "the Planetree project, with its emphasis on the health and well-being of the whole person, is setting the stage for the future of hospital care." In the words of Dr. John Gamble, chief of medicine at Presbyterian Pacific Medical Center and a Planetree board member, "our research and experience indicate that the incorporation of modern medicine and technology in a setting that upholds full rights and dignity of the individual patient will add immeasurably to the healing," he adds. Lindheim believes that most people are beginning to ask: "How do we want to be cared for at birth, when sick, when old, and when dying?" Planetree's reasoning well could be the answer, she says. "I have a feeling Planetree is a better way to heal."
Design and the Experience of Dining

Five Southern California restaurants that are adventurists in both architecture and cuisine. By George Rand

There was a time in the recent history of Los Angeles when an evening of fine dining meant driving out to the ocean for grilled mahi mahi and a salad bar. Oh sure, there were always the few traditional good European restaurants. Most of the regular haunts were more noted for their atmosphere and their celebrity clientele than their fine cuisine: Mateo’s had creamy cannelloni and sexy red leather booths laying in wait for the rare appearance of Frank Sinatra. Paul’s Duck Press with its cracked leather booths catered to the local pols with a gamey cuisine that included a gravy made of duck juice squeezed from the cooked bones using a device built like a huge thumbscrew with a spout.

In the late ’70s Los Angeles had a developmental spurt, not only in population but in the depth of experience it began to support. A serious world class city emerged with genuine political movements, a surfeit of crime, runaway real estate prices, and a confluence of minority communities from Asia and Latin America that quickly swelled to become the population majority.

Almost suddenly, like spring plants breaking through the hard winter soil, a new breed of sophisticated restaurants began to appear on the new urban landscape. This article discusses five contemporary restaurants in which architects have played a vital role, sharing responsibility with the chefs for constructing exciting environments to house a host of new culinary experiences.

The transformation of Los Angeles from lotus land to serious metropolis has been a long time in coming. In a town like L.A. it does not pay to use models of urbanity borrowed from Europe or the East Coast. The spread-out, polycentric form of the city requires a sensibility that accepts its helter-skelter character. This is a town with unusual juxtapositions—a vacuum cleaner repair store next door to Valentino’s, a four star Italian restaurant. Mile after mile of these contradictions are seen in peripheral vision framed by an auto windshield. There is no gradient, no sense of hierarchy, no reason to hope it will all eventually make sense.

Frank Gehry, FAIA, and his younger colleagues have had a gripping impact on the form of the city. Gehry questioned the logic of the Southern California vernacular of pastel stucco and pantiles as a basis for urban form. In terms conditioned by the Vietnam war, risk of earthquakes, and nuclear madness, his aesthetic choices came to represent a questioning of the idea of progress in architecture as based on new technologies.

The Los Angeles food revolution also has its complex sources. It stems from the efforts of mainstream figures like Bernard Jacoby of the Biltmore who, along with his younger American colleagues trained in European schools, have sought to break the iron grip of tradition held by traditional French cuisiners. Major talents like Michael McCarty (Michael’s, Santa Monica), and Michael Roberts (Trumps, West Hollywood) set the tone for an elegant health minded cuisine focused on the freshness of the simple, undisguised elements. In their hands the gallery-like setting in which the food is served came to play an important role.

Increasingly, “avant-garde” restaurants represent a joint exploration by young chefs and architects. These new settings have emerged as key players in the battle for “public space.” Until recently, radical Los Angeles architecture has been restricted to a series of private homes inaccessible to the public except on tours. Restaurants now provide the opportunity for visible experimentation by a new generation of architects whose concerns are in synchrony with a chefs for whom beurre blanc sauce, the symbol of French nouvelle cuisine, is ancient history. Their mutual concerns include a diverse mixture of art and ethnology, urban archeology and biology.

Seventy-two Market Street was commissioned by actor/producer Tony Bill (“Come Blow Your Horn”) and his friend Dudley Moore—who wanted a place to play a well tuned piano when he was in town—and designer/restorer Anthony Heinsbergen—among his credits, the State Capitol building, Biltmore Hotel, Wiltern and Fine Arts buildings, Los Angeles, and New York’s Carnegie Hall—who wanted a comfortable place he could use as his informal headquarters.

Tony Bill is a natural connoisseur with yearning to create a feeling of community. When the Venice property, one-ha block from the crowded ocean boardwalk became available he jumped at the opportunity to focus his producing talents on development of an unusual restaurant.

The program resulted from a confluence of talents, including a fourth partner, Julie Stone, who brought considerable restaurant know-how to the deal, at a chef named Leonard Schwartz. Tony Bill recalls that he used many lessons he had learned in dealing with film properties. Maxim number one: “Work with go people and let them do what they do best.”

The program was kept relatively simple. They knew they wanted an oyster bar. A they wanted anything but a “large box with tables and chairs in it.” In addition, the wanted great food—simple dishes done very well such as Cajun style meatloaf and Louisiana sausages—a piano for good I music (not “Strangers In The Night”). More than anything, they wanted the place to succeed or fail on its own merits rather than rely on a chic “club” image.

To “do what they do best” as architects, Tony Bill turned to Thom Mayne and Michael Rotondi who have operated for more than a decade as Morphosis (“development of form”) in West Los Angeles.

Tony Bill spent time with Mayne and Rotondi to explain his desires, took them on a trip to New York City to show the what he liked, and then gave them the head. Mayne and Rotondi focused on t

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tion of the arcaded street to the entry, in the public exterior to the private interior, creating a dynamic sense of movement.

This is a picturesque, quietly pleasing place. It has a clarity of mood that is compelling while at the same time being engaging and informal. It is also a disciplined, theoretically rich design that poses questions. How is the quality of light used to change the mood? How does the organizing system of axes, columns, planes, and a mental object that can be experienced like a musical composition ("spatial blues")?

The common materials used on the exterior (copper, a steel column, concrete, glass, and slate) are brought inside but framed in a way that allows them to define their natural elegance. There are combinations of blond wood panels separated by inlaid copper and concrete bisected with slate tiles. Each ordinary material is given an extra glow by energy that is created by their combination.

The space is given primary shape by 10-foot-square glass planes (window, divider, and rear wall) that create an sible hologram-like box that thrusts through the body of the space from front to rear. The rear glass panel that contains this form is a mirrored construction by artist DeWain Valentine.

This axial arrangement fights for dominance against another force, a small "building within the building" containing the liquor bar and oyster bar. It sits at an angle to the main geometry and has the effect of compressing the path of entry and shaping the pattern of circulation around its volume. It also creates a soaring verticality.

The existing building had to be reinforced to meet L.A.'s stringent earthquake standards. Morphosis tied the exterior walls to an interior tension ring braced by tie rods to an asymmetrically rotated column that sits in the middle of the small internal building. The column is small and squat to contrast with the long thin steel column on the same axis that serves as one of the supports for the aging exterior arcade. The new column is sheathed with a copper piece etched with figures by sculptor Robert Graham.

Both food and building are founded on a fascination with the artistic transformation of the ordinary into the extraordinary. Just as there are no exotic materials, Leonard Schwartz's food is simple and straightforward. His culinary roots are in American cooking with touches of the French and Italian.

His dishes are not far removed from what people might prepare for themselves using family recipes with off-the-shelf ingredients. There is, for example, a meatloaf made with "a multiplicity of peppers" (green, yellow, and red bell peppers; jalapeno, cayenne, black, and white ground peppers). It contains a mixture of beef and pork and is served with mashed potatoes fluffed with heavy cream and a flourless gravy made with wine and fresh herbs.

In all, the restaurant is a personal statement on the part of owners, architects, and chef—but made without the customers feeling an alien will is being imposed on them.
Angeli
(the name comes from “city of angels”) is a tiny but distinctive café/pizzeria designed by Morphosis and project architect Michele Saie. The idea is the product of the vigorous minds of chef-entrepreneur Evan Kleiman and co-owner John Strobel. Kleiman is an engaging and energetic woman who studied Italian literature and film while “catering her way through college.” After working in the “designer food” business for some time she wanted an unpretentious café without expensive truffles and radicchi where people could be happily fed with exceptional food for under $10, a place informal enough to “hang out” in (“the pizza cooks bring their baby every day” Kleiman says).

The cuisine is “rustic Italian home cooking” from Rome and the south of Italy “with a touch of Tuscany,” and, “not a translated food.” There is no “nouvelle presentation” (garnishing the plate with small pieces of the herbs used in preparing the sauces). Kleiman says “there is nothing on the plate you don’t eat.” Obviously, this is not average pizza or they would not have up to 400 people per day paying up to $8 for an eight-incher. Big sellers are the Pizza Margherita (tomato-basil sauce, mozzarella, fresh basil, parmesan) and Calzone al Forno (stuffed with mozzarella, ricotta, spinach, mushroom and black olives, parmesan).

The two-room restaurant is located on the eastern end of Melrose Boulevard, a spontaneously evolved retail district in a deteriorating area that came into being as a result of the mutual stimulation of young retailers with a penchant for strong, shoutingly artistic merchandising strategies.

In this city with no past, new layers are stuck on top of the old without effort to disguise the discontinuity. The fragmented Angeli facade is suspended over the old storefront. The Cor-ten-steel broken pediment is made to look like a ruin and is now covered with what owner Kleiman fondly refers to as “velvet rust.”

The restaurant evolved in two phases: The original 36-seat, postage stamp-size store was to resemble a “church with niches and candelabras,” says Kleiman, and a second that was added only four months later, more than doubling its size. The first half was functionally constrained but the second gave Morphosis the freedom to improvise. Here the wine rack is tilted 15 or 20 degrees implying that the bottles of expensive nectar are rolling off some cosmic Coke machine. Partial beams are thrust gleefully around at similar angles, creating a drama overhead that is quite pleasing. They rest gingerly on one another like oversized pizza cutters, looming like elements of the environment in Disney’s “Fantasia.”

To enter the main original room you walk under a sexually aggressive projective wood beam that thrusts through and out of the facade announcing the main axis of the simulated central aisle of the church like interior. In proper liturgical fashion to get into the building you have to move off-axis (to the left) and through a door that calls to mind the crowded opening of European cathedrals. Once inside, the gravity-defying wood beam hangs preciously in space and is matched by its opposite member, a similarly shaped HVAC duct, which completes the main axis ending at the bar counter (simulated “altar and pizza oven (“apse”). The side aisles are graced with wall niches filled with bread sculpture figures and lit with specially designed “dynamite pack cluster” candelabras that hang above them.

From the day the doors opened, Angeli has had tons of loyal customers, regular from the neighborhood who come for coffee in sweatpants and others from different parts of Los Angeles who dress up for i night out at a really hip night spot. When asked how she evaluates the result, Eva Kleiman waxes about how they got real solid architecture for their limited funds. She pauses and breaks into a broad, uncharacteristic smile and says, “We have a really hip space... a really hip space...
Border Grill

is a small Mexican-inspired restaurant designed by Josh Schweitzer and David Kellen. The owners, Mary Sue Millikin and Susan Feniger, had met in Paris as apprentice chefs and had subsequently founded the successful City Cafe. City Cafe moved to larger quarters, and the original became the Border Grill.

Platters are served on oversized, heavy oval dishes with an inch-plus border to frame the food. At one end they have three vegetables, all absolutely fresh: “rajas,” strips of roasted Poblano chiles and peppers swirled with cream and Monterey Jack cheese; “chilaquiles,” fried tortillas with red salsa and range cheese baked together; and corn. At the other end is the “entree.” They feature rib-eye steak with roasted garlic, tongue stew with oregano, and 10 other dishes.

The partners serve what they have come to like in their travels. They particularly enjoy the assertiveness of the food and hope others will respond to its clarity. “Sometimes in French food things get lost, covered up,” says Milliken, “they are too diluted and transformed.” People have responded in droves.

Schweitzer-Kellen was given a free hand to provide an environment to match boldness of the cuisine. Simple shapes pop out from the wall plane, providing in relief the feelings of abstract plateaus of the Mexican desert landscape. Daylight from above gives the lightly colored surfaces a sun-faded patina.

The color palette itself (light green and lavender accents for the walls and the reddish-orange bar) was selected to recall the boldness of colors used in street architecture in Mexico, and at the same time to reflect the harmonic use of these colors by Luis Barragán. The black, polished-granite tabletops provide an elegant counterpoint to these light traces of color, as do the precise lines of the Ron Rezek lamps. These themes are reinforced by such subthemes as oversized lapels on waiters’ white jackets, thin leather ties and black tux pants with Stan Smith Addidas white running shoes. The colors have a stark, absorptive quality, are not easy to adapt to. When the food and beer arrive the colors come to life. The food colors gain added strength and clarity from the surroundings.

Clearly, the architects appreciate food as an art form and have created a gallery for its consumption. But Mary Sue Milliken warns us not to take it too seriously. “It’s just food,” she says. “Remember, you just have to eat again tomorrow!”

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Chaya Brasserie

belongs to the Tsunoda family which has been in the restaurant business in Japan for 300 years. When it wanted to open some restaurants in Los Angeles it sent Yuji Tsunoda to buy three sites. He then set about to transform European cuisine through Japanese use of fresh, barely cooked ingredients, and startling presentation. Japanese influence had been felt in the formulation of the lighter "new cuisine," but the results were still within the constraints of what is acceptable to French xenophobia.

Prior to opening the first of the three restaurants, La Petite Chaya (Chaya means "tea house"), chefs were dispatched to study in France for several years. The restaurant opened on a remote street in an eastern part of Los Angeles advertising itself as "a nouvelle cuisine Franco-Japonaise restaurant and bar." It immediately caused a stir. Now the second restaurant, Chaya Brasserie, has opened and this time a contingent of chefs was sent from Japan to Los Angeles by way of Italy.

Grinstein/Daniels, Inc. is the architect that transformed what was a Packard showroom in the decorator district of Los Angeles into Chaya Brasserie. Elyse Grinstein is an art collector. She and partner Jeff Daniels just completed a house for artist David Hockney. It fell upon them to express, in architectural terms, this hybrid and sophisticated combination of Japanese teahouse and European brasserie along the lines of La Coupole.

One way to have approached the task would have been to collect a series of contrasting images from Europe and Japan and then to juxtapose them. Instead, Grinstein/Daniels started with the experience of convivial dining and focused on how the elements of the environment help to support that experience. They began to introduce elements that recall Japan (blond wood, joinery) and Europe (wainscoat, tilted mirrors).

The bowstring trusses of the old warehouse building were retained and cut through by the large new central atrium that provides natural light (the Los Angeles ingredient) focused on a Japanese bamboo garden ("the bamboo grew like hell," says Grinstein). The four octagonally shaped pine columns, expressive of Japanese joinery, were fabricated and then chambered at top and bottom to express the meaning of capital and base. This same detail is picked up at the entrance in a study in France for several years. The restaurant quickly exposed a large than expected demand for high quality food and service. The existing myth about Los Angeles as a casual unsophisticated town had failed to recognize this latent need.

The success of this combination of elements gave developer Ratkovich confidence to try it again when the 12-story Fine Arts Building became available a few years later on a nearby site. The Romanesque building by the same architects as the Oviatt was carefully restored by Brenda Levin of Levin & Associate.
Inclusion the construction of another first restaurant, this time in association with Joachim Splichal, an eminent French chef who has since left and turned over reins to Laurent Quenioux. Unlike the formal restaurant in the Oviatt, the Seventh Street Bistro has the informality of an ordinary French cafe and the high quality food one would expect to find in a society that deems itself to have a significant “food culture.” For Quenioux, a combination of informality and quality presages a trend that will spread through the entire region.

When they took over the building the place contained the Cap 'n' Quill restaurant, with red acoustic tile ceilings, red wallpaper, and built-in Naugahyde booths. As they removed these effects they discovered beneath the turmoil a series of barrel vaults, molded plaster beams, and corbels, much of which had been riddled with holes by previous generations of ducts and wiring.

The presence of daylight—a Los Angeles first—is made possible through large shed windows that were uncovered by restoration efforts.

The architects had to focus on subtle background effects, an architecture of pastime pleasure, rather than creating an “object environment” to stimulate or tantalize the mind. The basic elements are a sequence of stepped walls that link the front to the rear of this awkwardly narrow space, a sequence of subtle arch forms that relate to the Romanesque background elements without mimicking them. The palette—shades of cool grays for the walls, neutral grays for the stepped forms, and pink for the arches and original corbels—was selected to create a flowing, lyrical setting. The design neither features nor overwhelms the preserved elements of the past; it allows them to remain as background.

This design philosophy seems to work in response to the food, which is so tied in taste and visual presentation that any major visual distraction would inure the senses to its magic. In the past, a “grill” might have had pictures of wild boar adorning the walls to stimulate the appetite. In contemporary cuisine the food takes responsibility for stimulating the mind by virtue of its own internal “construction.” For example, venison is thinly sliced, sauteed, placed in a fan pattern on a large white platter, served with a slash of green peppercorn sauce along one edge, and garnished with a delicate fan of sliced yellow papaya. Squab is served baked, boned-breasted on a squab shaped puff pastry shell with black peppercorn sauce, and also as a “pizza” with wild mushrooms and rosemary sauce. The menu is changed daily and tests the versatility of the chef since it is dependent upon the availability of ingredients that may be imported from as far away as New Zealand.

Desserts have a particular architectural flair. The gratin of oranges is a crisply baked, wafer-shaped mouse containing orange sections that sit on a lake of light orange sauce dotted with small curls of freshly toasted basil. The petite flan is served with poached pear and is garnished with a little pouch made of a crepe filled with chocolate sabayon and held together with a string-tie of orange rind.

Perhaps the exploration of this combination of food and environment will offer insight into an architecture, without polemic, that challenges the mind while accepting people as they are, including their “dark side,” and makes them feel once again their presence is desired in environments designed for their use.
Spokane is a robust city in the interior of Washington State near the point where the Rockies begin to flatten into plains. It is a modern city, but it retains remnants of the past and a frontier quality reminiscent of another time.

Thus, when Review Tower, proudest landmark of its historic district, reopened last year after remodeling and additions, a commemorative book of essays was issued by Cowles Publishing Co., its owner and principal occupant.

"When C.B. Seaton designed the Review Building, he worked under a mandate that it be the most conspicuous building in Spokane," one essay read. "He achieved that goal through the unique shape of the building and the unusual height of the tower. His design isolated the tower in such a way that no competing structure could ever block the clear view of the sky achieved at its apex. Unlike the skyscrapers of a later period, the tower cannot be diminished, but it is rather enhanced by the presence of adjacent structures."

The 1891 tower rises on a tapered corner from a brick building described as Victorian Romanesque by the architects of the recent work, Adkison Leigh Sims Cuppage of Spokane. The first task was to remodel the Review Building and its 1929 neo-Gothic neighbor and insert an addition larger than either behind the older building. The addition, also of brick, follows the curve of the street, gracefully swooping up to the tower.

The addition stands quietly in the shadow of its venerable neighbor with intentional humility. It is devoid of ornament, its deep arched and vertical openings have an affinity to the original building.

In the course of the project the architects created two pleasant new open spaces: one a roof terrace on the addition, the other a ground level courtyard at the juncture of the addition and the 1929 neo-Gothic building.

Inside, the program was very direct: to whatever extent possible in three very different buildings from three widely separate periods, make the spaces seem part of a single structure. The unification was pursued by standardizing detailing, component and systems on upper floors.

The ground floor of the original Review Building was preserved as built. Details and materials from it were used elsewhere in the building "to continue a thread of historical significance," say the architects. In all, the project is a skillful blending of periods. Donald Canty, Hon. AIA
Review Tower in its remodeled majesty. Below, pre view. Right, courtyard behind addition and landscaped terrace on its roof.
Bringing Color and Light to 'A Rich Background Building'

Architect Atlee B. Ayres' buildings amply flavor downtown San Antonio, notably the twin-towered Municipal Auditorium of 1923, a Spanish-eclectic feast suggestive of Bertram Goodhue, and the 1929 Tower Life Building, a deco wedding cake that is easily the city's best skyscraper.

Ayres' enduring contribution was the forging of regionalist themes. His buildings today seem fresh, simple, clear; they belong to this place.

Very early in his long career (he died in 1969 at age 96), Ayres designed what is now 110 Broadway, a five-story, U-shaped office building that handsomely turns the corner at Broadway and Houston just a block from the Alamo. The materials are Spanish yellow brick with cornices and medallions of red and cream terra-cotta. In 1907, 110 Broadway gained an Ayres-designed sixth story and six-floor addition that extended the building by four bays to the east and turned the U-plan into an O around an odd-shaped, quadrilateral light well.

A circa 1910 photograph shows the building as fashionable and thriving; its windows are shaded by striped fabric awnings and a bank occupies the corner storefront. But by the early '80s, when a Tulsa developer acquired 110 Broadway, a tattoo parlor and a pornographic book store were installed at street level; only pigeons inhabited the floors above. The light well—a jungle of air handlers, ductwork, and fire escapes—was ankle-deep in debris floating in water from a stopped-up artesian well. The roof leaked, windows were broken out, and brick surfaces were covered in grimy, cracked, white paint.

Along Houston and Broadway, the original linear awnings over the sidewalk were long gone, while only fragments of the cast iron storefronts remained. In designing replacements, the renovation architects, the Urban Design Group of Tulsa, walked the familiar line between the needs of budget and requirements of the diligent San Antonio Conservation Society and demanding Texas state office of historic preservation, with mixed results. The new metal awning seems lifeless and a shade too dark. But the storefronts, with a delicate ellipse silkscreened on the inside of each transom light, are beauties.

It was a natural to enclose the light well as an atrium, but execution proved structurally challenging, says partner Jack W. McSorley, AIA, principal in charge of the renovation. Absent original working drawings, test borings revealed the 1904 main section's floor slabs as cinder concrete (with the consistency of mud, quips McSorley), most likely supported by a mesh laid over a series of flat bar straps slung as catenaries between interior steel beams and eyebolts in load-bearing walls. The atrium renovation required the precarious feat of closing some masonry openings and enlarging others at ground level without compromising structural integrity.

The light well had always opened to the basement level, and the owners insisted that street level circulation pass through this high space, so the architects bridged the atrium at that level, positioning an oversized knuckle exactly under a circular skylight of like circumference. They studded the surface of the bridge with glass block pavers, lit from underneath, and placed a mosaic on the basement floor alluding to the course of the San Antonio River through the city core.

Painted a creamy white, the small atrium is more a quiet court than a dramatic space. And that seems appropriate to Atlee Ayrs 110 Broadway, which is more a rich background building than a stellar landmark. A.F.
The renovated facades at the intersection of Broadway and Houston. Corrugated metal between the fourth and fifth and sixth stories are terra-cotta; the top one is metal painted to match. Near renovated storefronts and a ‘before’ photo. Above, round holes under top floor late atrium. Right, glass pavers in a leading from entrance to elevators t from below.
Indianapolis Gets a Movie
Palace Made Symphony Hall

The Circle Theater, a neoclassical revival style vaudeville and movie house designed by Rubush & Hunter, opened in 1916 in a prominent location on Monument Circle, the symbolic center of Indianapolis. Considered for years the city's grandest movie palace, the theater had fallen on hard times by the 1970s and was closed in 1982.

The Cleveland firm of van Dijk Johnson & Partners and the local firm of Archonics Design Partners were commissioned to convert the theater into a performing hall for the Indianapolis Symphony Orchestra. Although the theater had undergone "modernizations" in the '40s and again in the '60s, the interior had retained much of its original character.

Conversion called for two major space alterations—a larger stage and a larger lobby. The architects extended the stage back 14 feet into an alley and added a shell with splayed maple walls and seating for chorus or concertgoers. Several rows of seats at the rear of the theater were eliminated, and a solid wall closer to the stage was added to make the lobby incorporate the existing oval opening to the mezzanine above.

The original proscenium arch would have hidden 20 percent of the musicians and would have trapped sound behind the opening. The architects removed the inner portal to create a new proscenium 50 feet wide and 33.5 feet high and duplicated the original relief detailing on the inner surface of the new opening.

Interior restoration also included repair of the original bas-relief detailing, replication of box seat balconies, and repair of elaborate mirror panels. The color scheme of grays, rose, and ivory was drawn from newspaper accounts that described the theater during its opening, said architect Peter van Dijk.

The original decorative white terra-cotta on the facade was repaired, while the thinner profile of the restored 1916 marquee allows for the re-creation of an original painting on the front facade. Lynn Nesmith

Clockwise from above, restored mezzanine lobby and new entrance lobby below: lavish performance hall with enlarged proscenium, new box seats, and restored dome and chandelier; marquee before; restored marquee with friezes and row lights.
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if books on cities there is no end—and good reasons. Cities are, were, and be where the people who create, nge, or disturb gather; where the best acts of art and craft are made, shown,ributed, or hoarded. So I suppose ks on cities will continue to be writ-since there is no end to the things can be said about them.

his book is pleasantly different from y. As the dust jacket says, it is “lively sumptuously illustrated,” so sumptu-that it can easily be taken for a cof-able book where the gray stuff in veen pictures is disregarded. But Mark guard’s gray stuff is not stuffing. It is asy-going prose filled with facts, apt tations, telling examples—an antithe-doctrine. Right off, he announces he had “no particular theory or mes-in mind” when writing this book. I d agree there is little theory, but I a message: Money is the fuel that the complicated engine called the This is not exactly original, but a t wit and sharp eye take the book years away from the customary dull ts and pedantic jargon endemic to ar books.
is a book for enthusiastic ama-i, casting a net that attempts to cover uries and cities everywhere. It is a -bag, a browsing sort of book, writ- a genial, extraordinarily well in-cicerone not in a hurry who often supply a seemingly small fact that s the culture of a time and place. instance, in 1423 Venice had a popu-n of 120,000, and out of this number 0 serviced the fleet and were housedingle work force building. Suddenly e the power of this great trading that flourished for 700 years—we ow it maintained and defended itself where the riches came from. Girouard us that the Piazza San Marco was named the Piazza del Broglio (intrigue) use that was where the deals were he tells of the money-changing hts at the foot of the Campanile, of heese and salami shops opposite the
Books from page 85

Girouard takes a subject and, if it pleases him, digs into it and sometimes tells us more than we want to know. Then the opposite. For instance in the chapter “America and the Birth of the Skyscraper,” we are told that American hotels began to lead the world around 1830 in size and appointments. “... One curious reason for their size was that from early on a large number of people, including entire families, lived all year round in them.” But we are not told why. The why in this case explains a great deal about early life in the U.S. First, there was the mobility of the general population, extraordinary in all but nomadic societies, and, second, there was a scarcity of domestic servants in the North that led people, especially the younger ones, to the boarding house and the hotel. And, I don’t doubt, to the rapid development of labor-saving domestic appliances from central heating to dishwashers.

Girouard has a last chapter on “Babylon or Jerusalem” in which he sneaks in everything he didn’t say about the city, the suburb, and the garden city movement, but ending, of all things unexpected, with a 14-page essay on California. The main emphasis is on Los Angeles, which he, like most Britons I’ve known, finds fascinating in a morbid sort of way as being filled with “surf boards and sunsets, palm trees and Coca-Cola, Philip Marlow and Charlie Chaplin, of Mickey Mouse and Frank Lloyd Wright, of weirdos, professors, gangsters, gurus, millionaires, nice ordinary people, a failed Jerusalem, a low density Babylon.”

Part of the charm of this book is its randomness—one minute we are speeding over the centuries in our time warp machine, the next we are strolling down a Paris street windowshopping in the belle epoque, but best of all we can imagine sitting in Mark Girouard’s second floor living room, “where within 10 minutes walking distance are four good restaurants” (in London?) listening to him talk while we look at the pictures.

Pericvaii Goodman, FAIA

Mr. Goodman himself has added to the piles of books on cities, having written Communitas and The Double E, both on community planning. He is professor emeritus, school of architecture and planning, Columbia University.

Architecture in the Real World: The Work of HOK. Walter McQuade. (Abrams, $40.)

The first 50 pages of this chatty book are devoted to a general discussion of the architectural firm of Hellmuth, Obata & Kassabaum, while the remainder of the 231 pages is given over to photographs and comments on the firm’s projects. Architect/journalist Walter McQuade says that the firm’s workload substantially comes from three specialties: health care facilities, correctional institutions, and transportation projects, including airports and subway stations, but the firm, headquartered in St. Louis, with 12 offices around the U.S., has designed virtually every building type, from chapels to computer centers.

McQuade says that what he wanted to do in this book was “to go past the facade into the business” of a firm. The principals are said to have wielded no editorial blue pencils—small wonder since the book heaps praise upon the firm for its design talents as well as its business policies. McQuade is an entertaining writer (he received AIA’s medal for architectural criticism), and he makes the characters in this book come alive.

He describes, for example, Gyo Obata’s clothing (“pale Italian tweed jacket, unbuttoned, over a black knit polo shirt, tieless”); his working days, arising at 6 A.M. for a competitive game of tennis before going to the office where he’s in charge of design; jetting all over the world to job sites; expressing thoughts on design (architecture, he says, “must be like Ella Fitzgerald’s singing—really smooth and supple”).

George F. Hellmuth is described as the salesman par excellence and is quoted as saying, “What I love is making the kill, packing it in, and throwing it on the floor.” He’s the firm’s member who “stalks business.” His “aura,” according to McQuade, “is very down-home, and the older and more successful he has grown, the more he has come to resemble an Ozark possum in manner.” One of his greatest challenges came when he heard there was a chance to build a university in Saudi Arabia. He bought a plane at once to Beirut, hired a Lebanese lawyer as an adviser, then flew on to Riyadh where he started making friends. After many a cup of tea with university officials, he got the commission to build the university on a 2,400-acre site on the outskirts of the Saudi capital, obtaining a $3.5 billion commission under a 10-year contract. Meanwhile, on the other side of town, HOK is building a huge airport.

McQuade also writes about the late George F. Kassabaum, AIA’s president in 1968-69, who died in 1982. At the time of his death, he was working on a book on Marcus Aurelius. McQuade sees Kassabaum’s “steady hand” still visible “in the firm’s smooth operation.” As the firm’s chief administrative officer, he had responsibilities that required great skill. Since his unexpected death, things have changed, of course, and proven architects have moved up. Jobs are now more of a team effort, with a project manager responsible for the total endeavor, working closely with a project designer, under Obata, and a project architect.

To read this book is rather like listening in at, say, a dinner attended by AIA fellows who are swapping anecdotes. For example, one learns of how the HOK proposal documents for the Riyadh University were presented in magnificent fold- ers made of Moroccan leather dyed in the royal green of the Saudi monarchy; how Hellmuth hopes to raise ginseng (which grows wild in the Ozarks where he has a farm) commercially, hoping it will bring a fancy price in China where it is considered an aphrodisiac; how Hellmuth does like to use slides in a presentation to a client, preferring to fan out magazine tear sheets of published jobs; how the principals in HOK made $215,000 each in salary, plus bonuses, in 1981; how the firm plans to go on even beyond its founding principals, having granted stock options to some 80 employees.

McQuade ends his comments in the first section with a quote from George Kassabaum, who a few weeks before his death said: “There’s a tremendous personal satisfaction that comes from looking back at a building you were part of 25 years ago. It has influenced people—people have enjoyed it, lived in it, worked in it, may gotten well in it. And there it stands. One thing that architects have, that no too many other people can do.”

Mary E. Osman, Hon. AIA

Computer-Aided Design for ConstructiStanley Port. (Wiley, $32.95.)

Stanley Port is a British consulting c ong and structural engineer who was formerly head of research and development in London engineering firm and more recently has had construction managem experience in the Middle East. He has been in practice as a consultant since 1980. His book is a thorough, in fact, very thorough, introduction to the hardware, software, and techniques of computer-aided design and drafting. Except for minor digressions into such related areas as highway design, ground modeling, and concrete detailing, the text is largely with architectural applications.

The chapters at the end entitled “Is There a Need for CAD?” “The Option and “Assessment and Selection of Tuc key Systems” are worth the price of admission. Port carefully outlines a detailed process for answering an architect firm’s key questions: “Do I really need CAD?” and “How do I get it?” Wisely does not answer these questions but ra provides checklists of the issues.

One word of caution: Most of the references are to British manufacturers, o zinations, procedures, systems, and vocabu. Peter Piven, FAIA Mr. Piven is a partner in the Philadelphia firm of Geddes Brecher Qua Cunningham.
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A Second Opinion on the Lessons of Riis Plaza's Fate

By Sinton Breines, FAIA

Although Allen Freeman’s observations of Riis Housing Plaza’s current condition are accurate enough (“Evaluation: Neglect­ed Relic of the ‘60s,” Dec. ’85, page 48), his conclusion about what went wrong are wide of the mark. In misunderstanding the economic and social forces operating against good urban planning and the effect of this process on the design professions, Mr. Freeman moved me to offer some opposing comments. (Incidentally, he also misspelled Pomerance & Breines.)

The article makes the point that Riis Plaza was taken over by drug users, vandals, and grafitti artists because it is not on the street where it would have been visible to passers-by. Freeman concludes with “Riis Plaza was a Band-Aid that would not hold. Fortunately, the lessons of Riis, both project and plaza, have been learned and absorbed.” By “lessons” he indicates he means Jane Jacobs’ and Oscar Newman’s theories about the role of street life in big cities.

But Freeman’s own report refutes his argument. For several years Riis Plaza worked as designed. The amphitheater, seating 1,000 and modeled on Shakespeare’s Globe Theater, accommodated theatrical, music, and dance productions by local amateurs and occasional professional groups. Funds and direction were available, and project management, actively involved at that time, provided dressing rooms and toilets in an adjacent basement. In those days, the extensive play facilities were crowded with kids and their parents, and the quiet areas were used for chess games and teenage bull sessions.

In my opinion, Riis Plaza eventually failed not for architectural or landscape design reasons but because of political, social, and cultural problems. Government funding for supervision and security were withdrawn. Without these supports, a public space, no matter how designed or located, cannot survive.

What about the role of street life in the viability of open space? As a result of the original success of playgrounds at Carver House and Riis Houses in New York City, the sponsors (Brooke Astor, Mary Lasker, and Lady Bird Johnson) commissioned the same design team to do a similar playground in a one-acre sand lot adjacent to the Buchanan School in Southeast Washington, D.C. The facilities were almost identical with Riis Plaza, viz: amphitheater for entertainment and basketball, equipment for children and adults with the addition of a sturdy masonry pavilion with supervisor’s office, snackbar, and toilets.

This time the space for the project was not in an interior courtyard; it was right on the street. In fact, it was a corner site with two streets. If Jane Jacobs and Oscar Newman are right, Buchanan School Plaza had the design qualifications for success. But it happened that Buchanan was completed in the period of the Watts riots, and the troubled District of Columbia was seething with unrest. Buchanan lacked the social and organizational resources to withstand this reality and, in a short time, was literally destroyed right there on its two streets. Was design at fault or the real world of politics and culture?

On the other hand we can record a small but significant success. At the time we were involved with Riis and Buchanan Pomerance & Breines with Zion & Breines as landscape architects was designing a highrise public housing project for the

Below, Buchanan School Plaza, Washington, D.C., soon after it opened.

Mr. Breines is a principal with Pomerance & Breines, New York City, architect of Riis Plaza with M. Paul Friedberg.

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tressed Ocean-Hill Brownsville area of Brooklyn named Glenmore Plaza. Instead of orienting the towers to the surrounding streets, we created a large, inner-block space for the recreational use of the tenants and from which the buildings could be entered. In most other respects, Glenmore Plaza was similar to Riis Plaza with water-sprinklered, sunken space suitable for music and theater and with quiet areas for children and elderly. To achieve the open space we proposed closing the intersecting streets that ran through the site to vehicular traffic. We reasoned that tenants going to and from the building entrances would always be in view of those entering the plaza; being more involved with each other would make them feel more secure. All this was accomplished in 1967 with extra funds for this purpose from HUD. According to Freeman-Jacobson, Glenmore Plaza, being away from the streets and in a high crime area, could have been a stage set for disaster. Since completion, however, we have not had a murmur word from the housing authority, in project management, and from social workers that Glenmore Plaza is one of the bright examples among the city's public housing projects with respect to tenants' morale, use of the open space, and actual absence of graffiti, vandalism, and crime. These cheering reports were confirmed by my own occasional visits to the project. When I read Freeman's criteria of Riis Plaza my confidence in Glenmore Plaza was shaken for the first time. I put in a call to Ethel Boulten, the current manager of Glenmore Plaza, expecting to learn the worst. Instead, she was able to assure me that the public spaces were in good shape and intensively used.

"Water sprays are in action all summer so that the kids feel they are at the beach," she said, and she told me that of the fact that the designs, the uses, and the streets in urban design have to be looked at more closely. Jane Jacobs has contributed to the thinking and understanding about public space in large cities. But there is more to streets, parks, and plazas than their physical space. How used, how maintained and policed, traffic congestion, air and light pollution, and the frustration and alienation of large numbers of residents—these also are factors in how streets affect people. And, in turn, how people in urban cultures affect streets and other public space. It is not so much a matter of "defensible space" as "defensible people."

What can be learned from this? To begin with, theories about the role of streets in urban design have to be looked at more closely. Jane Jacobs has contributed to the thinking and understanding about public space in large cities. But there is more to streets, parks, and plazas than their physical space. How used, how maintained and policed, traffic congestion, air and light pollution, and the frustration and alienation of large numbers of residents—these also are factors in how streets affect people. And, in turn, how people in urban cultures affect streets and other public space. It is not so much a matter of "defensible space" as "defensible people."

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CHOOSING A SOLUTION

BY ROLAND LOUIS

Who's buying computers? Your competitors, that's who. And they're using their computers to work faster and smarter, offering clients better service as well as lower fees. That's the positive side.

Here's the negative: By 1990, practicing architecture without a computer is likely to become difficult, if not impossible, because vendors and clients will start to assume that the architect not only has a computer but knows how to use it effectively.

This supplement will explore applications by beginners and experienced computer users to improve their service, productivity and profitability, and will offer a glimpse of what the future may hold during the next 12 to 18 months.

Although architects as a group have been slow to automate, there is no longer any question that the so-called "critical mass" has been reached. Computers have crossed the boundary between fad and necessity in the architectural office.

McGraw Hill, which has been surveying computer penetration in construction so it can plan its delivery of product information, reports that the number of architectural firms using computers has grown from 28% in 1981 to 60% last year.

One of the few comprehensive computer surveys of architects in an area is conducted by the Northeastern Illinois Chapter of AIA. The chapter surveyed all of its members in February 1984 and again in February 1986. Most members practice in suburban Chicago. The largest firm has 35 employees. The chapter currently has 87 members.

The surveys show that computerization of member firms has grown to 53% from 33%. And the number of applications used by the firms has grown from three—word processing, accounting and engineering—to nine. Of the firms not now using computers, 21% say they plan to buy.

The most popular computer applications that northeastern Illinois architects say they are planning to buy are, in order: spreadsheet, graphics, CAD and database management.

For a copy of the survey report, write the chapter's president-elect, Charles Grant Pedersen, AIA, Suite 322, 4515 Harrison St., Hillside, Ill. 60162.

Regardless of which survey is used, it is clear that (1) architects have been slow to automate and (2) they are starting to catch up. Vendors now recognize that architects represent a tremendous marketing opportunity, not only for their sheer numbers but also for their leadership.

The latest surveys show 55,000 to 60,000 practicing architects and about 14,500 architecture or A/E firms. Although large, sophisticated owners often dictate the choice of computer and program, most other owners and a host of specialists take their cue from the architect who retains them or directs their work. Equipment choices made by an architect are likely to influence the buying decisions of 10 to 15 other design consultants.

All this spells good news for the architect because it signals the emergence of a significant market for software applications specifically designed for use in architecture.

WHAT ARCHITECTS PLAN TO BUY

<table>
<thead>
<tr>
<th>Plans to buy</th>
<th>Already own</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>34%</td>
</tr>
<tr>
<td>Non-CAD Graphics</td>
<td>32%</td>
</tr>
<tr>
<td>Engineering</td>
<td>28%</td>
</tr>
<tr>
<td>Specifications</td>
<td>18%</td>
</tr>
<tr>
<td>Database Management</td>
<td>22%</td>
</tr>
<tr>
<td>Accounting</td>
<td>18%</td>
</tr>
<tr>
<td>Project Management</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: Northeastern Illinois Chapter, AIA, February 1986/Based on 51 firms that own or intend to buy a computer.
WHICH SYSTEM IS BEST?

Some questions generate more opinion than fact, in part because definitive answers cannot be found. Although firms might come to different conclusions, experienced managers agree that it is important to consider these issues carefully before taking the plunge into computers. Here is a selection of 10 great issues in computerization:

1. Which system is best? That’s like asking which restaurant is best. There’s no substitute for reaching your own conclusions for your own reasons.

2. Should we proceed on our own or get a consultant? Again, the decision is yours, but don’t get a consultant to avoid becoming involved in planning.

3. Is it better to buy from a discounter or a local dealer? This one comes down to the question of which is more important: your money or your time. The discounter probably has the better price and the dealer probably offers better service.

4. How much should we spend? The price of a professional level system starts at $5,000 for the most basic applications, everything included. You ought to spend more. For CAD, equipment that can do serious work starts at $13,000 (list price) plus plotter. Spending more would be worthwhile.

5. Is it better to buy more but less powerful computers or fewer but more powerful computers? The experts disagree.

6. How should computers be introduced into our office? There is no formula. Even asking for volunteers does not guarantee that employees will not change their minds. The best advice is simply to consider the question and involve the office in discussions.

7. On what basis should we charge for computer time and how much? No standards have settled out so you’re free to innovate. Rates generally range from $5 to $50 an hour, plus operator time.

8. Should we buy only the top sellers in each field or should we consider other alternatives? The top seller got to be No. 1 by being a good value, and it probably has set the standard for third-party support. But newer products might offer lower cost or higher performance or both. If you had bought the industry standards four years ago you might still be running VisiCalc on an Apple II.

9. Where can we turn for help? The options are your dealer, the manufacturer, a consultant, a user group and your colleagues.

10. Is it better to lease or buy? Bigger systems are more likely to be leased, but firms make different decisions at both extremes. Leases usually run from three to five years. Leases are hard to arrange for the purchase of small, single-computer systems.

THE ARCHITECT’S COMPUTER: POSITIONED FOR GROWTH

A productive computer for an architect assumes a graphic capability. The equipment shown here is the minimum generally recommended, with prices quoted at list. Upgrades in each area should be considered. Budget also for software, cables, installation, training and furniture with storage for manuals.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
<td>$6,200</td>
</tr>
<tr>
<td>Graphics card and monitor</td>
<td>$1,600</td>
</tr>
<tr>
<td>Math coprocessor</td>
<td>$375</td>
</tr>
<tr>
<td>Input device</td>
<td>$600</td>
</tr>
<tr>
<td>Printer</td>
<td>$800</td>
</tr>
<tr>
<td>Plotter</td>
<td>$3,300 and up</td>
</tr>
</tbody>
</table>

Computer. The magic words in micros are “IBM or compatible” and technology based on the 80286 processing chip. Include at least 640K RAM and a 20 megabyte fixed disk, a floppy disk drive, two serial ports (for input device and plotter) and a parallel port (for printer). If you’re planning to run CAD, consider whether a microcomputer will suffice for you.

Graphics card and monitor. Buy them only as a matched set to avoid flicker. Get at least 16 colors and a resolution of 640 by 360 pixels. The Hercules card is a best buy if you can manage without color. For渲染s, 256 colors is the minimum.

Math coprocessor. This chip sits inside the computer and improves the speed of the computer. It handles the mathematics necessary to display geometric figures on the screen. It also improves the performance of some spreadsheets and other programs.

Input device. You choices are a digitizer and a mouse. The latter is less expensive ($175) and satisfactory for many CAD programs, but it can’t make use of the templates some programs require. Digitizers come with a puck or a stylus. The choice is a matter of personal preference.

Printer. Most architects will prefer a printer with a 24-pin printhead and the capability for Letter-Quality output and graphics. A wide carriage is handy for some financial reports but not necessary. A laser printer offers greater speed, higher quality output and quiet operation at two to four times the price.

Plotter. Most CAD programs require a device that draws rather than prints for output. Sheet size options for CAD are 24 by 36 and 36 by 48 inches. Most architects will prefer more pens, more speed and greater resolution than $3,000 will buy. The best pen plotters cost up to $15,000. Architects with heavy production needs are starting to look at electrostatic plotters. They start at $30,000.
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CHUCK NEWMAN, AIA, AND JOHN VOOSEN, AIA

Newman and Voosen seem to generate more controversy than usual between architects. Voosen practices in downtown Chicago; Newman prefers the suburbs. Voosen likes Compaq computers; Newman sticks with IBM. Voosen picked Autocad; Newman’s choice is Versacad. They meet, but so far neither has gotten the upper hand.

Like the other people quoted in the interviews that follow, they disagree on details but see eye-to-eye on one basic principle: The computer can help make an architect’s practice more successful. Naturally, they define successful in different ways. Newman is adding volume, whereas Voosen is getting pickier about the jobs he takes.

Both suggest that their fellow chief executives analyze the purchase of a computer and its applications on the basis of profitability. This comes primarily, they say, from the reuse of data, faster completion times and the higher quality of documentation.

Newman, who has analyzed his applications, says the most profitable are, in order, word processing (including specifications), spreadsheet, accounting and CAD.

In selecting hardware, they urge buyers to stay with equipment that can be updated as technology changes. Neither considers it a good idea for a small firm to dedicate any computer to a single function.

Newman currently has eight well-digested programs in his office. Voosen has 11 programs and utilities.

INTERGRAPH MANAGER TOM FEAZEL, AIA

The wave of the future is full integration of CAD, specifications and cost estimating.

Architects are finding themselves the owners of vast amount of information, permitting them to expand their services and to develop continuing relationships with clients.

Systems that don’t create a readily accessible database from this information will become less useful and thus less competitive. If the computer can handle the volume of data necessary to develop good planning models and to play “what if” games, the architect will have available to him a degree of analysis unheard of in the past.

Small firms should start to think of big systems, now that the total price has dropped below $100,000. A sole practitioner with an intergraph is a money-making machine. The major bottleneck in CAD speed is the decision-making capability of the operator. If the architect-in-charge is operating the system, his productivity would boggle the mind.

One week of training will make an operator as productive on an Intergraph as on an Autocad.

AUTOCAD PRESIDENT JOHN WALKER

The competition in CAD is between general purpose design tools, like Autocad, and packages addressed to a specific market, like architecture. I believe the first will succeed because it’s easier to address the whole building process than to build specific tools for each profession and have them work well together. A specific program may be 5% or 10% more efficient, but does it make sense if a contractor or facilities planner down the line must re-draw or re-enter information? You’re going to see a major effort to provide CAD that thinks the way a designer works.

The era of CAD being synonymous with lines and arcs has ended. The central issue in CAD currently is the capture of information into a database. Today you can pull a door schedule off a drawing, but you can’t change all 6 foot doors to 7 foot doors by another manufacturer, highlight recent changes and find conflicts.

Designers work on projects, not drawings. The drawing is just one part of a database that represents a project. The next leap will be to the project level. Buyers should give some thought to how they will interface drafting, database, scheduling and estimating.

A major effort is going into making CAD easier for the first-time user. “Powerful” and “easy” need not be mutually exclusive.

Within 12 months, Autocad will make use of RAM above one megabyte in machine addressable space for program memory.
The cry of beginners and experienced computer-users alike is the same with database programs: Help me get started! Of all the common computer applications, database management has been the slowest to catch on because you had to be a programmer to use the early versions.

Then came the second generation, easy enough to use but not good for much more than maintaining a mail list—a function now being taken over by the new word processing programs.

Current database managers, like R:Base 5000, offer ease of use, power, speed and the ability to make changes. Finally, it's OK to start looking at their ability to maintain and analyze some of the vast amount of extremely valuable information that an architectural office assembles.

Start by asking yourself what information you want to track, what information worth keeping and how you want to retrieve it. Utilities in the new programs will help you organize the data and enable you to type questions in English to get at it. If the program doesn't recognize a word, it will ask you to explain and then remember the next time you ask.

MICRORIM CHAIRMAN WAYNE ERICKSON

Computerized bookkeeping is essential to be competitive in business today. But don't let anyone tell you it's going to be easy or fast. Once your files and procedures are set up, though, the pay-off will be dramatic.

Accounting should be your first computer application because everything else flows to it. And, because bookkeeping is no labor intensive, no other application will pay for itself so quickly.

Good accounting software should include an architect-specific module as good as our AEPLEX for project management and for time and billing. The rest of the modules can be generic, but they should be integrated so data must be entered only once and all modules that use that information, such as payroll, will be updated automatically. The software also should be simple to use and provide management with accessible, timely and pertinent summaries.

Install the General Ledger module first. It will give you a financial picture of where you are.

If your present system is pinching you, don't delay conversion.

Perhaps the most important consideration in choosing software is support. Good support can cover up a bad package but even a good package needs some support.

TIMBERLINE PRESIDENT JOHN GORMAN

The architect of the future is going to be a data merchant... the keeper of the system... the one with access to the marketplace. Computers offer a way for the architect to rebuild his role. It's a mistake to assume that contractors know the market better; they go to manufacturers they're familiar with.

But the trouble with computer technology is that it's hard to assimilate right away. Even those who know the computer and the programs still must learn how to apply them to the architect's special needs.

The best solution may be Archibus, a drop-in crib course in computers for architects. It offers (1) tutorials in word processing, database, CAD, spreadsheet and the transfer of files between those applications, and (2) help in integrating them into an architect's office. The three volume set costs $2,000, including nine diskettes with architect-specific examples.

SYSTEMS INTEGRATOR BRUCE FORBES
TIPS FROM THE TOP

ENTRE PRESIDENT
BERT HELFINSTEIN

The difference between success and failure in computers often is the dealer.

My advice to first time computer users is to find a store you trust to help you identify the right hardware and software, to install the system smoothly, to help in training and finally to provide after-sale support.

Prioritize your needs. Set realistic goals. Make sure your own employees are receptive. Early productivity requires an investment in planning time and learning time.

Pick a dealer that is dedicated to CAD and authorized by manufacturers to inventory and support the necessary equipment.

Afra id you’re too small for a computer? Challenge a dealer to show you if the computer will pay for itself.

Worried by the rapid pace of change? Challenge the dealer to show you a respectable return on your investment.

My advice to experienced computer users is not to look at features—only at a straightforward capital equipment investment analysis on improved productivity. Consider networks and a better plotter.

For the future, I see a personal computer in every workstation. The power already available for only a few thousand dollars is mind-boggling.

TEXAS INSTRUMENTS’
JOHN MANDELL

A beginning computer user today can’t go too far wrong by buying a quality product with a reputation for good support.

Once you've gotten familiar with word processing and accounting, it's time to step into CAD. New technology is having a greater impact on CAD than on business functions.

Since TI makes both micro and mini computers, people often ask us what we recommend. For business applications, the decision can be based on the number of users. With fewer than 15 users, a micro is sufficient. With CAD, it's more a function of the applications a firm needs and its growth plans. If the firm needs that last 5% of possible features and full 3-D, a mini computer is worth the cost. Otherwise, we suggest starting with micros and after 8 or 10 link them to a compatible mini.

ARCHITECT
BRYCE HASTINGS, AIA

H astings & Chivetta, a 35 person architectural firm in St. Louis, started with word processing on a Wang in 1982, moved into CAD with Cadplan on two IBM XT's in 1984 and moved up to HOK Draw on two DEC Microvax II workstations last November.

When our clients started getting CAD and more design capability than we had—and we were professing to be the experts—we decided it was time to launch. We're still using our microcomputer but it lacks a 3-D capability and we found that it doesn’t take a very large building to reach its capacity.

We wanted to get our designers working earlier on the computer. We were attracted initially to HOK Draw by the price, but we were hooked by its performance. We have been able to manipulate shapes, play with things and look at options—all in 3-D. Drawings for a gym, for example, always show a basketball court and track; there’s no point sketching them every time.

Two workstations, including software and training, cost us $82,000 plus plotter. A third terminal is on order. Although we’d like to put a computer on everyone’s desk, we must be careful not to go overboard. Any equipment we buy must be used 100%.

We’re still using our three XT's for Cadplan, Harpear and Shuman’s financial management program, the Society for Marketing Professional Services’ AMS-1 for lead tracking and F. W. Dodge’s Design Estimator. The Wang runs word processing and MasterSpec.
The secret of a successful architectural practice is combining good design with good financial management. Unfortunately, many design firm principals find themselves stretched thin trying to do both—and not doing their best at either.

Harper and Shuman, Inc. can help—with CFMS, the most comprehensive, fully integrated computer-based financial management system for architectural firms. CFMS was created by, and specifically for, design professionals, and is sponsored by the American Institute of Architects.

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APPLICATIONS

MOVING UP IN APPLICATIONS

Computers once were criticized for being a solution in search of a problem. Remember when it seemed that their primary application was sorting punched cards for television game shows?

Perhaps all the whizzing and whirring captured the popular imagination because the blinking machine with the room full of tubes was then embraced as the solution to all our problems. "Hal," who was smarter than we were, would lead us to the new Promised Land.

Today, both extremes seem naive, although some people seem to remain fixed at one or the other of those stages of development. Young architects now accept the computer as simply a helpful tool.

The available help is becoming progressively better, as represented in both the number of applications and the number of competing software products for each application.

WORD PROCESSING

Of all applications, word processing is the cheapest, quickest and easiest to computerize. Another friendly aspect is that it enables the small office to produce professional-looking correspondence, proposals and specifications without a secretary.

Typical architectural applications are correspondence, proposals and specifications. MasterSpec, for example, has 4,000 subscribers; about 40% also receive the text on disk and the percentage is growing.

A word processor drastically reduces the volume of typing. All programs have a "boilerplate" function so that an architect preparing a proposal, for example, can use stock paragraphs and formats, adding only that text that applies to the current prospect.

The program everyone knows is WordStar ($495) by MicroPro. It is widely supported by related programs and can do almost anything anyone can ask of a word processor. It is criticized for being difficult to learn and use.

Lately it has been replaced on the Best Seller lists by Word Perfect (equal or greater power), pfs:File (simpler) and Microsoft Word (adapted to the new laser printers). Dozens of other programs have their champions.

ACCOUNTING

Computers have revolutionized bookkeeping. The process now can be totally integrated, automatic, simple, accessible, accurate, fast and current. Timely access to information enables a manager to act while it's still possible to influence the outcome.

Automated bookkeeping offers architects the fastest return on their computer investment. Maintaining ledgers is labor-intensive and prone to expensive errors. Perhaps most important, the computer will help get out the bills on time.

The functions architects need most are job costing, time management and accounts receivable. All three should be integrated (so re-entry of data is not necessary) and should follow the AIA accounting guide. They, in turn, should feed a general ledger program.

All but the smallest firms should consider buying payroll and accounts payable modules.

Five firms dominate the architectural market. They are Timberline, Portland, Oregon; Data Basics, Cleveland, Harper & St. Gobain, Cambridge, Mass.; and ACCI, Houston, and Micro-Mode, San Antonio, which offer the same program. With all modules, their software costs between $5,300 and $6,300.

ELECTRONIC SPREADSHEET

Number-crunching operations are what spreadsheets do best. Once a series of assumptions are entered, including formulas for how some result should be calculated, the architect can sit back and play "what if" games and the program will make the calculations.

Architects use spreadsheets to budget, to analyze the probable profitability of a project, to schedule staff needs, for basic engineering calculations.

Spreadsheet templates, or overlays, usually are exchanged between friends like freeware at a computer club, but occasionally the templates are good enough to acquire commercial value. An example is Enercalc Engineering Software by Michael Brooks. Enercalc, priced at $795, is a library of structural design and analysis routines for timber, steel, concrete and masonry. It comes with detailed, well written instructions.

For years, the best selling computer program of any kind has been a spreadsheet—currently Lotus 1-2-3, at $495. Whether it is the best is another subject. Various shoot-outs have rated Framework II and SuperCalc 3 higher. Multiplan, another winner, is priced at only $195. The Smart spreadsheet is faster and has better graphics. All perform essentially the same functions.

COMPUTER-AIDED DESIGN

Affordable systems now are available to draw plans, elevations, renderings and models faster and, some say, better than by hand. The drawings generate a database that can
How does the Hartsfield Atlanta International Airport manage 45 football fields of facilities?

With CADVANCE. The PC-based professional architectural Computer-Aided Design system.

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Achieve impressive gains in productivity also gave high marks to Cadvance by $3,500. But a panel of 24 architects preferred Datacad by Microtecture. They chose the Graphics Design System by McDonnell Douglas.

The run-away best seller is Autocad, a 2-D program by Autodesk. It costs $3,500. But a panel of 24 architects preferred Datacad by Microtecture. They also gave high marks to Cadvance by Microtecture, by Philip Johnson. They chose the Graphics Design System by McDonnell Douglas.

The non-CAD graphics, analytical graphics and presentation graphics. Analytical graphics are for internal study; presentation graphics are intended to persuade. Presentation graphics include still applications (for slides, transparencies, charts) and motion (for display on computer or television screens). The best program aimed at still presentations generally cost $400 to $500; those intended for motion start at that level.

Top-rated presentation graphics programs include ChartStar by Micro-Pro, Overhead and 35mm Express by Business & Professional Software, Energraphics by Enertronics, Graphwriter by Graphic Communications, Sound Presentations by Communication Dynamics and Diagraph/Picture Perfect by Computer Support Corp.

Most of them have drivers for the Polaroid Palette, which makes prints or slides directly from the computer.

Although programs that include motion tend to be expensive, IBM makes one of the best and most affordable: PC Storyboard.

Database

Two capabilities are expected of a good database program: information management and information analysis. The less expensive programs are easy-to-use list managers. More money buys the opportunity to analyze the information, change the data base and generate specialized reports.

Architectural uses include change orders, certificates for payment, transmittals and the like. The architect enters the project number and the computer pulls the rest of the information from a file and fills out the form. Specialized databases can produce a bill of materials from a CAD drawing.

The most popular database program is dBase III, which lists at $695. R:Base 5000 by Microrim is at least as powerful as dBase but faster and easier to use. It costs the same.

Other well regarded database programs include Power Base and Cornerstone. Paradox, Q&A, Nutshell, Reflex and V-P Planner are good new programs unencumbered by the programming complexities of dBase.

Integrated Combinations

This category normally combines a spreadsheet, word processor, database and communication applications in a single, integrated family of programs designed to exchange data easily. For example, part of a spreadsheet could be inserted in a letter without jumping through the hoops necessary with unrelated programs.

The survivors are starting to do well. Most are marketing their modules separately to gain recognition for them. And ability to exchange data files readily is important in networks.

The leader is Lotus's Symphony at $695, but reviewers generally credit its sales to a strong spreadsheet. The PFS family might be generating more sales, but Software Publishing, the vendor, reports each module separately.

The Smart series by Innovative Software is more powerful than PFS and better balanced than Symphony. It costs $895.

Other contenders are Enable and Framework II.

Software Utilities

Utilities include keyboard macros, desk organizers, DOS file managers, report generators, multi-tasking environments, copy protection breakers, spelling checkers, thesaurus programs, text enhancers and many more. Several handy programs will take a spreadsheet that is too wide to fit on an 8 1/2 by 11 sheet and rotate it 90 degrees.

The best selling utility vendor is Borland, its products include Sidekick and Superkey. They become instant staples on the best-seller lists when they were introduced. Sidekick, a desk organizer, is a veritable magician's bag of tricks. Superkey generates macros (linked series of commands).

Norton Utilities is bag of different but equally indispensable tricks. The most useful will help recover a file inadvertently deleted.

1Dir (pronounced Wonder) by Bourbaki permits DOS commands to be executed simply by pointing to function names. It's salvation for all those users with less than perfect mastery of MS-DOS.

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Circle 38 on information card
EQUIPPING THE HIGH-TECH OFFICE

D ecisions about hardware purchases are relatively easy, once the software has been selected and a budget established. The manual for most programs has an appendix that lists the equipment it supports. Trying to work the other way—finding out what software will run a specific piece of equipment—is more difficult.

Nevertheless, if you are aware of a superior new printer, for example, and your software does not support it, you might want to reconsider your choice. The program might lag in other respects, too.

COMPUTER

E quipping the high tech office starts with the computer.

The powerful CAD systems run on relatively few brands. One of the most prominent is Digital Equipment Corp. Its VAX line, including the popular MicroVAX II, is widely used.

McDonnell Douglas, for example, runs on Digital and Prime computers. Intergraph also uses Digital equipment but modifies it to the firm’s own specifications. Sigma Design and Computervision support the Sun computer. Both Prime and Computervision also have versions that run on their own computers.

In the microcomputer arena, IBM has one-third of the market, the IBM compatibles have a third and all others have a third.

The best of the IBM compatibles are made by such highly regarded companies as Compaq, Texas Instruments, Radio Shack, Hewlett Packard, Zenith, Wang and AT&T. There are many more. They compete by offering superior performance or lower price or both. One way the compatibles achieve superior performance is to run the computer faster—at 8 megahertz (mHz) compared to 6 mHz for the standard IBM AT.

Among the non-compatibles, Apple cannot be overlooked, especially if the applications will include presentations or business graphics.

More speed is the major demand by architects who are upgrading or expanding their computers. They are tired of waiting while the computer redraws the CAD screen or recalculates a big spreadsheet.

How fast the machine runs depends primarily on seven parts that can be replaced or bypassed simply, either by pulling out the original part and plugging in a new part, or by installing a switch.

The IBM AT is blissfully open to such tinkering. In other IBM micros, resoldering would be necessary instead of just re-plugging.

Alterations described here will not cause the AT to blow up, although they could cause a program to crash and they could raise eyebrows in the service department if the AT needs repairs in the future. No guarantees can be made. Keep anything you remove. Save your data files frequently. If the tinkering works, great; if not, most firms supplying the replacement parts offer a money-back guarantee.

1. Replace the original 16 mHz timing crystal with a faster crystal built to military specifications. (The computer operates at one-half the rated crystal speed. This means that a 12 mHz crystal will run the computer at 6 mHz.) Ariel Corp., Flemington, N.J., studied how 500 otherwise unmodified IBM ATs reacted to a faster crystal and found that 99% accepted a 16 mHz crystal, 95% accepted 17 mHz, 87% accepted 18 mHz, 84% accepted 19 mHz and 66% accepted 20 mHz.

Ariel sells the crystals for $25.95, guaranteed to work. Brian Roemmele, the president, recommends buying 16 and 18 mHz crystals and returning one. If 18 mHz works, try a higher speed. If this sounds risky, Megahertz Corp., Salt Lake City, sells a device with 12 and 16 mHz crystals and a switch to choose between them. The price is $69.95.

2. IBM, evidently distressed at the growing use of speed-up crystals, last October altered the AT’s BIOS chip. If it finds a crystal operating faster than 6 mHz, the current version of the AT will not work. The peripheral industry took just four months to overcome this hurdle. Ariel and Megahertz now offer crystal devices that run initially at 6 mHz to satisfy the BIOS chip and then shift into overdrive—user-selectable up to 12.5 mHz. The price is $89.95 from Ariel and $99.95 from Megahertz. They also work on pre-October ATs.

3. If the computer won’t run faster than 8 mHz, consider replacing the Intel 8086 microprocessor chip. At least two firms now build a faster version. The price from Ariel is $299.95. With an improved 80286, the success rate of a 20 mHz crystal climbs to about 90%. Roemmele said, and he would recommend trying a 22 mHz crystal. Processor chips should be handled carefully according to directions to avoid damage from static electricity.

4. If a faster processor doesn’t solve the problem, try replacing the RAM chips. Standard chips are rated at 150 or 200 nanoseconds. A better bet would be 120 or even 100 nanosecond chips. The price of 512K of memory in 120 nanosecond chips is $153 from Ariel. The 100s cost $250. RAM chips should be
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handled carefully to avoid damaging their legs or driving them into an uneven thumb.

5. Memory boosting boards that take RAM above 512K currently present a bit of a speed limit. AST, a leading manufacturer of the boards, says its Advantage board is more likely to accept the higher speeds than the Rampage, forcing buyers to choose between expanded and extended memory.

6. The graphics card also must be capable of handling a higher speed. Vermont Micro Systems, for example, guarantees its card for 10 MHz.

7. Replace the original 80287 coprocessor chip, which runs at an effective speed of 4 MHz, with one that runs at 8 MHz. Microway Corp., Kingston, Mass., sells an assembly that plugs into the original socket for $395. The 80287 chip performs the mathematics required of a speed limit. AST, a leading manufacturer of the boards, says its Advantage board is more likely to accept the purchased with a backup system, often more expensive.

We tried running Datascope on a pre-October AT at the higher speeds. The Megahertz and Microway devices running at 8 MHz presented no problem. A 20 MHz crystal from Ariel caused Datacad to throw out stray vectors and eventually crash. We then replaced the 80286 processor and substituted 120 nonsecond RAM chips from Ariel. This enabled us to draw satisfactorily. A 22 MHz crystal would not run the IBM diagnostics program properly and the computer would not work at all with a 24 MHz chip.

But the speed of the AT operating at 10 MHz and refreshing the screen at 8 MHz was breathtaking. Crowds gathered to ooh and aah. Reporting the price to the kibitzers sent them scurrying for pencil and paper to write down phone numbers of the vendors.

**PERMANENT STORAGE**

The architect needs a hard disk. Relying solely on floppy disks is not recommended, even for the sole practitioner, in part because it is too slow. Hard disks of 10 megabyte and up are widely available, but they should be purchased with a back-up system, often tape.

Another option is a Bernoulli Box by Iomega Corp., Roy, Utah. It provides dual removable cartridges with 10 or 20 megabytes each and combines the advantage of floppy and the hard disk. The dual 10 megabyte system lists at $3,700 or the dual 20 at $4,700.

**GRAPHICS DISPLAY**

The monitor and its controller card should be purchased as a matched set to avoid flicker. The IBM enhanced graphics display (EGA) with 16 colors and a resolution of 640 by 350 pixels lists at $1,600 and is adequate for today's needs. The next step up, which offers 256 colors and slightly better resolution, positions the architect for the advent of solids modeling and rendering routines. The list price is about $3,500. Don't buy a color screen without comparing the Autocad "Chroma" file in 16 and 256 colors.

Leading in professional-grade displays include Vermont Micro Systems, Winooski, Vt., and Verticom of Sunnyvale, Calif. CAD software programs like Personal Architect by Computervision also are starting to take advantage of VMF's build-in routines for 3-D modeling.

**PLOTTER**

Plotters also are a necessity for architects. Plotters have two uses: production drawings and presentation graphics. Printers are starting to erode the presentation graphics market and electrostastics are attracting interest on the upper end.

The market leaders in pen plotters are Hewlett-Packard, Houston instruments and CalComp. IBM Instruments makes splendid small plotters for presentation graphics. Prices range start at several hundred dollars for small plotters to $13,000 for a 36 by 48 inch model.

One of the newest entries in the field is a 36 by 48 inch plotter from Houston Instrument for $5,995. This single-pen plotter is called the DMP-56.

**PRINTER**

Every computer needs a printer. Early printers produced only text, much like the output of a typewriter. New printers do graphics or color or both.

Options today are laser, ink jet and dot matrix. Daisy wheel printers are becoming obsolete and thermal printers aren't far enough advanced to recommend.

For black and white output, the lasers may make everything else obsolete. The Hewlett Packard laser has about 70% of the laser market. Its Plus model lists at $3,900. The Apple laser is superior in most respects but it also is more expensive.

The run-away best selling dot matrix printers are made by Epson. Other well regarded dot matrix printers are made by IBM, NEC, Brother and Toshiba. Leaders in ink jet technology are Diablo, Quadram, Xerox and IBM.

**INPUT DEVICE**

An additional input device is required for CAD. Architects must choose between a mouse and a digitizer.

Those who choose a mouse next must decide on the number of buttons and whether they want an optical or mechanical mouse. Two or three buttons are the usual options. In digitizers, the choice is between a stylus and a puck as pointing devices. And pucks come with 1 to 16 buttons.
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Circle 41 on information card
DEATHS

Minoru Yamasaki, FAIA: Best known for the twin towers of the World Trade Center, Yamasaki won five AIA honor awards and was featured on the cover of Time in 1963. Many of his early buildings were heralded as architectural triumphs, while his later work received mixed reactions. Born in Seattle of Japanese immigrants, he worked in New York City in the '30s and joined the Detroit firm of Smith Hinchman & Grylls in 1945 before forming his own firm in Troy, Mich. He died in early February at the age of 73.

William Benn, AIA, Santa Monica, Calif.
Carl W. Clark, FAIA, Syracuse, N.Y.
Chandler C. Cohagen, FAIA, Billings, Mt.
John D'Orsi, AIA, Boston
Ronald G. Faleide, AIA, Blacksburg, Va.
Samuel B. Mayo, AIA, Nova Scotia, Canada
H.G. Holderness, AIA, Texarkana, Tex.
Ronald G. Faleide, AIA, Blacksburg, Va.
Carl W. Clark, FAIA, Syracuse, N.Y.
A.D. Janssen, AIA, Carmel, Calif.
F.M. Labouisse Jr., AIA, New Orleans
Samuel B. Mayo, AIA, Nova Scotia, Canada
W. Platt, FAIA, New York City
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James P. Skala, Cleveland
Robert Stanton, AIA, Carmel, Calif.
Charles M. Stotz, FAIA, Ft. Myers, Fla.
William F. Thomas, AIA, Salt Lake City
Alfred Visioni, AIA, Santa Barbara, Calif.
James E. Whiteaker, AIA, San Antonio
G.M. Williamson, AIA, Berea, Ohio
J.A. Wilson, AIA, Ann Arbor, Mich.

Correction: Mark F. Pfaller II, AIA, of Milwaukee was mistakenly listed as deceased in the February issue.

CREDITS


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The Kavanaugh sconce (1) from Ron Rezek Lighting + Furniture has a support arm in white or black with a triangular shade in white or custom colors. The fixture, available in incandescent, fluorescent, or halogen lamping, measures five inches high, seven inches deep, and 12 inches wide. (Circle 201 on information card.)

The Colore collection of Italian bath and kitchen fittings by Watercolors (2) has a stain-resistant, baked enamel finish in three pastel colors—pink, light blue, and gray. All faucets fit standard plumbing and can be installed without special tools. (Circle 202.)

Haworth’s ES system of freestanding computer support furniture (3) has tables with either continuous or incremental height adjustments from 24 to 32 inches and eight work surface sizes in light or medium oak, mahogany, or high pressure laminates. Triangular, square, and curved transitional surfaces are used to connect tables to incorporate work stations with panel-mounted furniture systems. Draw-
ers can be hung from either side, and standard features include an integrated wire management system and adjustable leveling glides. (Circle 203.)

Jack Dollard/DuBose Associates chose custom steel windows by Hope Architectural Products for the Aetna Training Center in Hartford (4). The windows have intermediate, hot rolled section profiles, urethane and polyvinyl finishes, insulated glass, and integrated groove weatherstripping. (Circle 204.)

The QQ office chair (5), by Robert Taylor Whalen for Corry Jamestown Corporation, has a contoured seat and back of molded polyurethane foam and a thermoplastic base with dual casters. Five seating models are available all with swivel/tilt or posture back options. (Circle 205.)

In the renovation of the 1895 Bourse building (6) in Philadelphia, architect H2L2 installed 23,000 square feet of American Olean Quarry Tile. Six-inch-square tiles in varied colors were used to create floor patterns. (Circle 206.)
Architectural Panels.
Custom-Form composite aluminum panels are designed for exterior and interior applications in industrial and commercial buildings. Panels are available in a variety of high-temperature baked enamel or anodized finishes. All finishes, which are applied after forming, fabricating, and welding, are completed to allow panels to be curbed, welded, and ground smooth. Built-in mounting clips are designed to provide easy installation. (Indasco, Inc., Santa Fe Springs, Calif. Circle 209 on information card.)

Bath Fixtures.
The Jakarta handcrafted teak lavatory has an intricate starbust pattern and a rich grain finish. The oval-shaped lavatory measures 23 by 19 inches and is treated with a patented protective coating designed to withstand temperatures up to 180 degrees. (Eljer Plumbingware, Pittsburgh. Circle 210 on information card.)

Restoration Materials.
Hand split shingles, beaded clapboard siding, window glass, doors, bricks, and oyster white mortar are recreated with the materials, designs, and methods used in colonial days. (Colonial Restoration Products, North Wales, Pa. Circle 211 on information card.)

Lighting Fixture.
Zero adjustable desk or wall lamp (above) has a flexible neck that can extend up to 21 inches from the base center and can bend as tightly as a one-inch radius. The cylindrical shade is a clear acrylic disk that rotates 360 degrees. The fixture uses a 5.5-inch-long, color-corrected fluorescent bulb. (Lumanetics, Emeryville, Calif. Circle 208 on information card.)

Skylights.
Horizonlite skylights have welded caps and frames, deep sloped condensation gutters, and specially designed extrusions. Designed to fit standard modular roof beam spacing, skylights have either curb mounted or self flashing. Units are available with glass or acrylic. (O'Keefe Inc., San Francisco, Calif. Circle 212 on information card.)

Kitchen System.
Residential kitchen fixtures have a matte finish, seamless doors, stainless steel countertops and shelving, and chrome silver, tubular metal railings running along the worktops. The doors and drawers have softly rounded edges and are available with chrome bow handles or angled handles. For quiet and tight closures, doors and drawers close against cushioning dust seals. (SieMatic Corporation, Santa Monica, Calif. Circle 213 on information card.)

Flooring System.
Norament synthetic rubber flooring has pattern of slightly raised pastilles grouped in one-inch-diameter circles. Designed for high-traffic institutional installations, this flooring resists chemicals, burns, scuffs, and stains. (Nora Flooring, Madison. In Circle 225 on information card.)

Ceiling System.
Woodtech ceiling panels are made of solid hardwood and measure two feet wide by a maximum of 10 feet in length. Panels are backed with a permanently mounted...
er of one-inch-thick acoustical and insulating material. Designed to fit into a standard galvanized steel grid, the system is suitable for vertical or horizontal installations or as a wainscoting or soffit. (Wood-Panel System, Marion, Iowa. Circle 48 on information card.)

broom Fixtures.

The Houston lavatory set has a lift knob that lays flat within the spout for an interrupted line flow. The geometrical surfaces are available in polished brass with one, polished brass with satin gold, or all one finish. The set is adaptable for k tubs, wall tubs, showers, or tub and shower combinations. (Paul Associates, Island City, N.Y. Circle 214 on information card.)

Durock Film.

tch tint Plus window film is designed to reduce heat gain by 60 percent and to heat loss by 40 percent. The year-round film also provides improved shatter resistance of the glass and obstructs percent of ultraviolet light. (3M Corporation, St. Paul. Circle 226 on information card.)

Durock System.

na-Shield circle top window unit, available in white or terratone, is designed to be used with Andersen's casement, Narro-line double hung, and awning windows. Units can be glazed with insulating glass, solar glass, or clear double pane insulating glass. Made of laminated white maple, windows have interior surface that can be stained or painted to match various wood surface treatments. (Andersen Corporation, Bayport, Minn. Circle 215 on information card.)

Building Board.

Durock tile backer board is a cement mortar panel reinforced with glass fiber mesh wrapped completely around the edge of the board to provide better nailing strength and to reduce edge damage. The backer board is designed to be used as an interior substrate for ceramic and quarry tile, lugged tile, gauged slate, thin marble, and thin brick. The board has five different one- and two-hour fire rated wall systems and is U.L.-listed for use as a floor protector and wall shield. (U.S.G. Industries, Inc., Chicago. Circle 221 on information card.)

Furniture System.

Delos furniture collection is comprised of four-leg and cantilevered sled base arm chairs, tilt-swivel desk chairs, and lounge chairs. They are made of polished chrome frames, black molded rubber arms, and seats and backs upholstered in leather or fabric. (Fixtures, Kansas City, Mo. Circle 222 on information card.)

French Doors.

In-swing door in two heights and two panel widths are sized to replace metal sliding doors or to fit Pella sunrooms. Frames are made of wood, and head and jambs are clad with aluminum finished in white, dark brown, or custom baked enamel finishes. The extruded aluminum sill has a solid hardwood threshold, and double weatherstripping is designed to reduce air infiltration. The double glazing system has removable interior panels of clear, Solar-cool bronze, or type E high performance glass. (Pella Windows & Doors, Pella, Iowa. Circle 223 on information card.)

Building Blocks.

Olympia Bloc is a wall facing system designed with the appearance of stone. The aggregate is molded with transparent polymer with a smooth facing that is integrally bonded to a standard concrete masonry unit. Blocks are available in six standard stone facings as well as custom designs and may be scored either horizontally or vertically for a variety of scales and patterns. (United Glazed Products, Baltimore. Circle 224 on information card.)
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<td>30</td>
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<td>8</td>
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<td>United States Gypsum Co. Cov.2- Marstrat</td>
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<td>15</td>
<td>Weyerhaeuser Doors Jacobson Advertising</td>
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<td>47</td>
<td>Wilsonart Co. McKone &amp; Co., Inc. Co</td>
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