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Mar. 16-17: Course on Gas Turbine Performance, Design, and Development, Houston. Contact: John White, American Society of Mechanical Engineers, 345 E. 47th St., New York, N.Y. 10017.


Mar. 24-28: American Concrete Institute Convention, Denver. Contact: Convention Manager, AIC, 22400 W. Seven Mile Road, Detroit, Mich. 48219.


Mar. 27-29: Pacific Design Center International Contract Furniture Design Symposium, Los Angeles. Contact: Judi Skalsky, PDC, 635 Westbourne Drive, Los Angeles, Calif. 90069.


Mar. 29-31: Earth Systems Exposition, Albuquerque, N.M. Contact: Robert Proctor, Earth Systems Development Institute, P.O. Box 1217, Corrales, N.M. 87048.

Mar. 29-31: Ninth Annual Associated Landscape Contractors of America Student Field Days, Mississippi State, Miss. Contact: ALCA, 405 N. Washington St., Falls Church, Va. 22046.


June 9-12: AIA Annual Convention, San Francisco.

LETTERS

Monumental Twin: A very nice job with the Washington Monument (Dec. '84, page 74). A solution to the misalignment that you didn't include was one drawn in 1901 by George Keller (below) that proposed an additional flanking obelisk (same height, same distance off the north-south axis) as per the Egyptians at the entrance of the Temple of Luxor. (Perhaps a George & Martha Washington Memorial?) The 1901 McMillan Plan did resolve, I thought, this urban planning problem very successfully, and probably much more realistically than the twin obelisk. Burnham provides a good lesson in Beaux-Arts theory in this exercise.

Roger L. Schultze, AIA
Chairman, Department of Architecture
Arizona State University

Attention to Small Towns: Your Kaleidoscope article entitled "Small Town Bank is a Collage of Indigenous Details" (Nov. '84, page 80) was very surprising and encouraging. I left La Grange, Tex., in 1971 to continue my architectural education at the University of Texas at Austin. I remained in Austin after receiving my degree and obtaining my license, but I travel back "home" frequently.

William Cannady & Associates did a very fine job in fitting the building into the context of the town. Every time I traveled back to La Grange to visit my parents, I made it a point to go by and see what progress had been made on the building. The finished product is very handsome, and I hope to see more examples of this type of architecture in future issues. Please keep the small towns in mind.

James A. Reeck, AIA
Austin, Tex.

Lighting Vaults: Nora Richter Greer's article in the October 1984 issue (page 56) implies that lighting designer Marlene Lee designed the vaults and lighting of Republic Bank, Houston, when in fact they were designed by Gensler & Associates as a means of extending Philip Johnson's 16th century Dutch Renaissance architectural expression into some very special areas of the building interior. Given the vault as a design element, Lee proposed a continuous uplighting metal tube mounted at the radius point of the vault (ceiling height) to run from end to end and hang from a series of pendants. This scheme intruded into the space and was subsequently rejected.

Gensler then designed a curved perforated metal panel (not concrete) to (1) provide a fixture with no visible connection to the vault; (2) provide a wash of the vault as a visual relief of its bulk; and (3) utilize the perforations as a down light for general illumination. The inspiration for this was twofold. One, as noted in the article, is the interior of Le Corbusier's Ronchamp Chapel, France. The other is the glass dome of the U.S. Capitol dome in Washington, D.C., from the project's inception in 1980 until completion in 1984 (see Nov. '84, page 67).

Correction: John Milner Associates served as restoration architect for the Sears House in Washington, D.C., from the project's inception in 1980 until completion in 1984 (see Nov. '84, page 67).
the first presidential design awards were presented last month in Washington for 3 federally sponsored projects and programs. Administered by the design arts program of the National Endowment for the Arts, the awards encompass the fields of architecture, engineering design, graphic design, interior design, landscape architecture, product/industrial design, and urban design and planning. It is the first program encompassing the entire federal government.

The 13 projects range from scattered infill public housing in Charleston, S.C., to a tax incentive program that encourages historic preservation, to an artificial hot. A report by the jury, chaired by I.M. Pei, FAIA, noted that "presidential enforcement of good design...help[s] create a better climate with the federal government to strive for design excellence, resulting in a higher quality of life for all."

In addition to Pei, who serves on the National Council for the Arts, NEA's residentially appointed advisory board, the jurors were architect-urban designer Stephen Carr of Cambridge, Mass.; graphic designer Colin Forbes of New York City; interior designer Maria Giese of Los Angeles; landscape architect Richard Haag of Seattle; engineer Marvin Joss of New York; Henry Millon, dean of the Center for Advanced Studies at the National Gallery of Art in Washington; George Nelson, FAIA, of New York; structural engineer Mario Salvadori of New York; Adele Santos, chairman of the department of architecture at the University of Pennsylvania; Columbia Broadcasting System Chairman Emeritus Frank Stanton; Donald Stull, FAIA, of Boston; William Turnbull Jr., FAIA, of San Francisco; and industrial designer-architect Lella Vignelli of New York.

The winners were:

To date, the program of infill housing has created 113 housing units on 14 sites in five diverse neighborhoods, including sensitive historic districts of the old city. The architects' approach to meeting current energy standards resulted in the return to a century-old Charleston house design. The juror's report: "The choice of a vernacular house type, the Charleston 'side-house,' proved to be appropriate contextually and climatically.... These examples are exemplary in their social, architectural, and urbanistic goals and set an important precedent for future public housing projects."

As a result of the new units, the city reports both new construction and rehabilitation on the upswing in the affected neighborhoods.

This complex of 186 one-, two-, and three-bedroom apartments is sited on a hillside bounded by a sunken freeway, a community of single-family houses, and a commercial district and is bisected by a public thoroughfare. The architects designed a high density complex based on pedestrian circulation spaces and private gardens. Peripheral parking structures were built a half-story below grade, and the space above them became buildable sites. Broken one- and two-story roof levels harmonize with adjacent single-family housing. The jury called the Gardens "a refreshing solution" in a difficult site.
- Lowertown redevelopment, St. Paul: HUD; Lowertown Redevelopment Corp., Weiming Lu, executive director; City of St. Paul; Port Authority of St. Paul; McKnight Foundation; and the architectural firms of Bentz, Thompson, Rietow of Minneapolis, Rafferty, Rafferty, Mikutowski, Roney & Associates of St. Paul, and Miller, Hanson, Westerbeck, Bell of Minneapolis.

In 1978, the McKnight Foundation helped establish the Lowertown Redevelopment Corp. to revitalize a neglected portion of downtown St. Paul that included abandoned railroad yards, ramshackle buildings, and a neglected riverfront (see Nov. '85, page 72). Today the corporation serves as an urban design bank to aid financing of individual projects, as a design center to help the city plan the area, and as an information and marketing office. Said the jury: "This ongoing project shows how urban design should be done and what it can do for American cities."
- Franklin Court, Philadelphia: National Park Service and Venturi, Rauch & Scott Brown, Philadelphia.

This is a monument to Benjamin Franklin and his ideas on the site where he once lived in the center of a historic block in downtown Philadelphia. Franklin Court, winner of a 1977 AIA honor award, was completed nine years ago for the U.S. bicentennial. The designers avoided an imprecise replica of the house, torn down in 1812, but rather spatially evoked an impression of it and Franklin's print shop with a steel framework that isometrically continued on page 16

AWARDS AND COMPETITIONS

NEA INAUGURATES PRESIDENTIAL DESIGN PROGRAM WITH 13 AWARDS

Unless otherwise indicated, the news is gathered and written by Allen Freeman, Tara Ritchie Greer, Michael J. Crosbie, and Lynn Nesmith.
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Awards and Competitions from page 11 represents the two buildings. Concrete hoods within the outlined buildings at ground level shield glass-covered “peepholes,” letting visitors see the remains of old foundation walls. “Franklin Court achieves a blend of restoration, imaginative recreation, and contemporary design while honoring the requirements of each,” said the jury.

- Art-in-architecture program, GSA.
- Over a 10-year period at a cost of about $6 million, some 200 art works have been commissioned and placed, primarily in federal building lobbies and plazas, funded by set-asides of .5 percent of the general contracts. The jury commended the program for its “intelligent willingness to sustain potential risks in the selection of artists through the solicitation of nominations from peer groups appointed by the NEA.”
- Charles River Project, Boston: U.S. Army Corps of Engineers (New England division) and the Waltham, Mass., engineering firm of CE Maguire, Inc.
- This ambitious project encompassing flood control, navigation, pollution abatement, and the encouragement of wildlife on an earthfill dam and pumping station between Charlestown and Boston’s North End. Said the jury: “The Charles River Project is a major public works program of the highest order, moving beyond a narrow technical mandate to complement the larger social, physical and visual qualities of its city.”

This segmentally assembled, cable-stayed bridge, completed in 1978, was the first of its kind in the U.S. It is built of precast, 300-ton elements using locally produced concrete. Said the jury: “The Intercity Bridge is not just a great technical accomplishment; it is a work of art. The use of steel and pre-stressed concrete in striking white color, the simplicity of the connections of its components, the elegance of the bridge lines, and the clarity of its structural behavior enhance the beauty of the utilitarian structure in ways that can be perceived by both experts and laymen.”

- Transportation symbol signs: Department of Transportation; American Institute of Graphic Arts and the AIGA signs & symbols committee; and the Princeton, N.J., design firm of Cook & Shanosky Associates.
- DOT’s 52 transportation-related symbol signs were recommended by a committee of designers, intensively promoted, widely distributed, and are now predominant throughout the nation’s transportation-related facilities. The cost of the effort was $65,000.
- Historic preservation tax incentives program: National Park Service.
- Under the program, a taxpayer who renovates a certifiably historic building may qualify for a tax credit equal to 25 percent of rehabilitation costs providing the property is used for income-producing purposes and its rehabilitation is consistent with its historic character. The jury noted that as a result more than 9,000 historic buildings nationwide have been rehabilitated and reused “in a variety of innovative ways and with a high standard of design.” The program has “brought about a philosophical change by demonstrating that the old buildings of America can be as serviceable, economical, and important as the new,” said the jury.
- Linn Cow viaduct, Blue Ridge Parkway, North Carolina: National Park Service; Federal Highway Administration; Riggs & Muller engineers of Tallahassee, Fl., and Jasper Construction Co., Litchfield, Minn.
- This final link in the 469-mile Blue Ridge Parkway is a concrete viaduct, 1,243 feet long and 37 feet wide, cast in 153 pieces, trucked to the site, and lowered into place by a crane anchored near the edge of the advancing viaduct. Foundation holes were drilled from above, and precast segmented post-tensioned piers then lowered into place. The jury praised the construction techniques for being “respectful of the environmental situation.”

- The roadway results in an elegant curving ribbon that caresses the terrain without using it as a support.”
- “The strong visual identity achieved by NASA shows the effectiveness of an appropriate design standards manual and its implementation,” the jury commented.
- The visual communication system truly captures the spirit and vitality of the space program.” The manual, developed in 1976, is the basic reference for all of the agency’s designers.
- Unigrid design program: National Park Service and the New York City design firm of Vignelli Associates.
- Unigrid is a design system employed by park service designers that is intended to establish an identity for park service publications, reduce development time, cut costs, and provide a clear way to coordinate the work of editors, designers, and contractors. The jury said that the program “demonstrates sensitivity to the wide variety of subject matter and attention to the finest detail.”
- The Seattle Foot: Veterans Administration; Prosthetic Research Study, Dr. Ernest M. Brugess, director; and Model & Instrument Works, Inc., Donald L. Poggi, engineer, both of Seattle.
- Developed during 1983 at a cost of $38,000, the Seattle Foot is the result of a rare collaboration between doctors, engineers, and designers. It is “a prosthetic device of great mechanical simplicity, high efficiency, and modest cost that opens up such dynamic exercises as running and ball playing to the amputees,” noted the jury.

News continued on page 10
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Phased Master Plan Chosen For Jacobs Pillow Campus

A joint design by architects Stephen Furnstahl and Kenneth L. Warriner Jr. was selected from a field of more than 100 entries to receive the $10,000 first prize in a design competition for a master plan for the historic Jacobs Pillow Dance Festival campus in the Berkshire Hills of western Massachusetts.

The competition resulted from a 1981 study that identified several problems relating to the facility's overall plan—the haphazard location of all 27 buildings utilizing only 8 of 70 acres and the need for several new buildings.

The program called for a phased master plan and site renovation—including housing, rehearsal and performing space, visitor amenities, and parking—while preserving the "small village" atmosphere of the 50-year-old campus.

The plan relocates visitor parking facilities to reduce vehicular traffic through the festival's symbolic center. Curving paths provide pedestrian access.

The proposed visitor and conference facilities are arranged to form a linear arcade loosely connected by a covered walkway. Student cottages would be relocated to a relatively distant site west of the festival entry road to provide a more secluded "village" atmosphere, and an outdoor amphitheater would be added just north of the 1942 Ted Shawn Theater.

The plan calls for some trees to be cleared to permit panoramic views, and picnic areas and gardens would be sited around the main performance area to define the different activity zones and to provide small-scale green spaces. A man-made lake, from drained wetlands, would provide a fire emergency water supply and recreational facilities.

Warriner is an associate professor of architecture at Rensselaer Polytechnic Institute, and Furnstahl is a principal of Design Group F.O.S. in New York City.

The $3,000 second prize was awarded to a joint design by Wesley Wei and Patricia Kucker of Philadelphia. A design by Daisy Sanchez, Raimundo Fernandez, and Monica Ruffing of Coral Gables, Fla., was selected to receive the $2,000 third place.

Jury members were Edward Larrabee Barnes, FAIA; Michael Graves, FAIA; Arthur Drexler, director of the architecture and design department of the Museum of Modern Art; Laurie Olin, chairman of Harvard's landscape architecture department; Michael Pittas, dean of the Otis Art Institute; Cora Cahan, executive director of New York's Feld Ballet; and John Fontaine, David Sykes, and Liz Thompson from Jacob's Pillow.

News continued on page 21
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First Phase of Pension Building Renovation for Museum Finished

One hundred years ago Grover Cleveland's inauguration ball was held in the great hall of the unfinished Pension Building in Washington, D.C. (it was completed in 1887). Last month the spruced-up Pension Building was one of nine sites where President Reagan celebrated the beginning of his second term in office.

The renovation of the Pension Building is a public/private effort (estimated at $30 million) to turn it into a national building museum. Designed by Gen. Montgomery C. Meigs, the building is loosely modeled on the Palazzo Farnese in Rome. Its focal point is a 316-foot-long, 116-foot-wide, and 159-foot-high atrium that is dominated by eight enormous Corinthian columns. Arcades edged by 44 Doric and Ionic columns overlook the central atrium.

Architect for the restoration is Keyes Condon Florance of Washington, D.C., with Giorgio Cavaglieri, FAIA, of New York City, associate architect. According to Mark Maves, AIA, KCF's project manager, the recently completed first phase of the work involved cleaning and repointing the brick and terra-cotta facade, restoring three of the four entry vestibules, and restoring the second floor commissioner's suite, which will be used as the building museum director's office. In that three-room suite is the only

continued on page 32

Below, view from the second floor arcade of the 30,000-square-foot great hall. Across page, eight Corinthian columns dominate the great hall. Right, one of the giant Corinthian capitals.
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Preservation from page 27
intact decorative ceiling, which has been cleaned. All but the tile floor and fountain in the great hall has been restored, and the federal government financed a $2 million replacement of the badly deteriorated two-acre roof. The great columns have been remodeled, although the color scheme of the columns, as well as that of the entire hall, are different from the original. The new colors are gold, orange-yellow, and rose. KFC also began the conversion of the rooms off the great court into museum space—seven rooms in the northwest corner of the first floor—and provided temporary conference space.

The second phase will involve converting the rest of the side rooms into more exhibition space, a permanent conference facility, offices, research facilities, and a library. Museum support functions, storage space, and an archives will be housed in a new underground addition to be placed on the east side of the building.

Meanwhile, the building museum is redying its first exhibitions on topics including the Brooklyn Bridge and federal architecture. One room has been set aside for a permanent exhibition on the Pension Building's history—the building was originally built to house the post-Civil War offices of the federal pension system. The building museum was mandated by Congress in 1980 to commemorate and encourage the American building arts.

Government

Billboards Remain Despite Highway Beautification Law

Twenty years after the enactment of the Highway Beautification Act of 1965—a favorite pet project of Lady Bird Johnson—the nation's Interstate highways are still studded with billboards, according to two recent government reports. In fact, while nearly 600,000 signs have been removed, new signs are being erected at a substantially faster pace. In 1983 alone, one study found, three times as many new signs went up as old ones were torn down.

The Highway Beautification Act mandated compensation of "nonconforming" signs (those signs legally erected before the program became effective), with the federal government paying 75 percent and the state paying 25 percent. Removal of signs erected illegally either before or after the program began does not involve compensation. Noncompliance with the law by a state can result in the federal government withholding 10 percent of the state's annual federal highway funding.

Over the years the act has been substantially weakened. A 1978 amendment required that monetary compensation be paid to sign and site owners for signs that are removed because they do not conform to local laws or ordinances. Prior to '78, no such compensation was mandated. And while $200 million has been spent since 1965, federal funding has declined from about $27 million in FY 1976 to about $2 million in FY 1984. No new money was appropriated for the program last year, and only $15 million remains in the program's budget.

According to the General Accounting Office's report, the Federal Highway Administration's oversight of the state programs has declined as federal funding has decreased. This finding is backed by a study conducted by the Transportation Department's inspector general that concluded the outdoor advertising control program has had "little impact on enhancing the scenic and recreational value of the highways." The study found that in many cases money paid to billboard owners to demolish signs was simply used to put up new signs at other locations, often on the same highway. Both reports cite frequent occurrences of billboard operators cutting down trees and shrubbery to make their advertising signs more visible.

The General Accounting Office estimates that it would cost approximately $427 million to remove all of the remaining billboards on federally funded Interstate and primary highways. The Transportation Department report recommends that the act be rescinded.

News continued on page 15
January was a very Presidential month, bringing not just the inauguration but announcement of the first Presidential design awards, as reported in our lead news story. The awards were evidence of a continuation of the concern with federal design quality that began a quarter century ago when another President rode down the inaugural parade route and was appalled by the tawdrieness he saw. Then followed not just the first commission on the renewal of Pennsylvania Avenue but a forward-looking set of architectural guidelines for the government and the selection of several renowned architects for federal buildings.

In those days the traditionalists still were fighting a rear-guard action against modern architecture in Washington, and the choice of big-name modernists was seen as a sign of progress. Today the choice of a classicist might be regarded in some quarters as more progressive. Evidence is the design chosen for the next major phase of work on Pennsylvania, a multi-use project called Market Square that apes the heavy neoclassicism of the Federal Triangle across the avenue (see December issue, page 14). Runner up in the competition for the site was neo-Romanesque.

The Presidential design awards jury, for its part, traced federal design concern back to Washington and Jefferson, whom they said “recognized that the success of the nation was linked to the vision that the people had of themselves and the buildings that housed their institutions.”

The jury expanded upon this “value architecture” theme, saying: “It should be recognized that the benefits of design excellence also have economic implications. The vast majority of advanced industrial nations have national design programs, and their business and government leaders have recognized that good design is good business. As part of our effort to improve the nation’s competitiveness in world trade, the federal government’s leadership in improving American design standards is both timely and important.” D.C.
AT&T: The Tower, The Skyline, And the Street

The Johnson/Burgee landmark is more proper than audacious. By Donald Canty

When the design was first unveiled (on the front page of the New York Times) it seemed the apogee of Johnsonian audacity. Philip was playing the ultimate game, with the stakes a great deal of money from the ultimate client.

Then, as construction proceeded, the cliché became that the most arresting thing about the building was not its so-called hippendal top, fully visible only from afar or on high, but the lobby and loggias, the play of solids and voids at its base.

Now that the building is a functioning part of midtown Manhattan, it is apparent that the whole is more notable than any of its parts. It is not at all audacious, but, on the whole, polite, phisticated, even a bit conservative, and impeccably clad in textural tan granite.

It has a bottom, a center, and a top, all distinctly articulated—a fact emphasized by its contrast to the mutely modern IBM building across 56th Street.

There is much that is arbitrary here, a clear penchant for the flamboyant gesture, but much can be forgiven when viewed against the utter blandness of IBM and most of the other towers of the era that it represents.

AT&T itself is not totally divorced from the modern era. Trump the base and top off the crest and you have a building no more distinctive (or distinguished) than many in midtown built postwar years. Nor are the bottom and top hard-core postmodern. The base is vaguely classical but not really historicist in terms of directly imitating the past. And the top, which reads the famous rendering as a two-dimensional pediment, is formed of two flat plates flanking a circle that, Johnson points out, is a large and efficient exhaust for the mechanical systems. (Forms fumes?)

AT&T viewed from the west in the context of other recent midtown towers. In the left foreground, the Trump Tower Swanke Hayden Connell, basically modernist but with interlocking staggered cutaway walls. In the right background, the bruted Citicorp building by Hugh Stubbins, which provided precedent to AT&T as a modern tower that avoided a flat roof, right above. AT&T from the east flanked by the dark, sternly modernist IBM building by Edward Larrabee Barnes. Right, roaching AT&T on Madison.
The base is bold in both scale and posture.

AT&T is a chesty building, thrusting itself farther into Madison Avenue than its neighbors to the south. This further exaggerates the already extreme scale of the base elements, notably the 65-foot-high entry arch. These elements are artfully composed, but Madison is simply not wide enough to provide a vantage point from which to read the composition head-on. Johnson says, seemingly not in jest, that he tried to persuade his client to buy the block to the east, and raze the buildings on it, to provide a proper forecourt for his tower. If the base confounds the passerby visually, it provides an exceedingly welcome new haven along the avenue. This haven is in the loggias and covered plazas on the front and sides of the building. They are stocked with (slightly funky) chairs and tables for a respite from the battle of the midtown sidewalks. And here the exaggerated scale of the base elements produces a sense of space that partakes of nobility.

Left, the entry presses against the street, the tower having been thrust forward to preserve the solar access of the building behind. Johnson acknowledges that AT&T crowds the street, but points out that ‘important buildings on narrow streets are an ancient tradition.’ Below, one of the covered outdoor spaces that are among AT&T’s principal urban amenities.
Golden boy rules in his voluminous vestibule.

One reason for the success of the loggias’ scale is their openness. There is not such relief in the lobby itself. The relation of height to area is overwhelming. Standing here, one feels like an ant at the bottom of a box for a bottle of champagne. This is not a universal reaction: A security officer, asked about the lobby, said, “All the people love it and all the architects think it’s too high.”

Dominating this looming volume, and making it seem all the more claustrophobic, is the 22-foot-high statue “The Genius of Electricity” by Evelyn Beatrice Longman that graced the roof of AT&T’s former headquarters. Known within the company as “the golden boy,” the statue stands on a tall podium beneath a golden ceiling canopy in front of a huge halo of light. The golden boy’s presence is a little bit threatening and more than a little bit kitsch.

It is in this lobby, however, that the architects draw the most richness from the granite, in terms of both finish and detailing. In front of the neo-deco brass elevator doors runs a handsome row of columns and arches, making a series of vault-like spaces. And on the south wall are two arched panels where the granite has been highly polished, contrasting wonderfully with the thermal-finished surfaces everywhere else.

Right, the golden boy in all his outsized glory. Johnson calls the voluminous street level lobby ‘a vestibule to hold the statue.’ Below, among this lobby’s most pleasant experiences in the finely detailed transverse passage across the elevators. In plan, the tower is paralleled at its rear by a low companion building.
A glaring ‘sky lobby’ and varied office space.

There is no seating in the street-level lobby: It is merely a checkpoint and passage. The working lobby (termed the sky lobby) is just above it. Here too there is contrast to the textural granite — but contrast of a glaring, blaring, blatant sort. Every surface is marble, morgue white with spidery black veins. The marble appears again in the sweeping stairways that lead from this lobby to dining rooms and other common-use spaces and in a stairwell linking the two executive floors.

These are the 33rd and 34th floors, and between them and the sky lobby are 27 floors of general offices. (Interior designer for all but the lobbies was ISD Inc.) The general office space is in rectangles around a central core, with private offices and conference rooms on the perimeter and “secretarial corridors” flanking them. The former have marvelous views, but the fenestration pattern clearly caused some planning difficulties. The corridors are open landscapes notable for their almost total reliance on task lighting, both fluorescent (in brass tubes) and incandescent (in little domestic-looking lamps). There is only a single strip of ambient lighting along the core wall. One visiting architect found the effect “like being in a more conventionally lighted office building on Saturday.” The executive floors themselves are appointed and detailed like a 19th century gentlemen’s club. There is carefully crafted wood paneling everywhere, and much of the furniture might have come out of a wealthy grandmother’s attic.

Left, the dead white, eccentrically veined marble of ‘sky lobby and grand staircases. Across page, above, an elegantly traditional executive floor; below, a ‘secretarial corridor’; below right, perimeter office with a window problem.
A welcome new network of public spaces.

Yet to be occupied is a galleria across the back of the building with a glazed canopy joining the tower to a separate three-story building. The galleria is on axis with the IBM building's "winter garden"—a large, tree-filled glass room with ample benches for public use. This leads, in turn, to the atrium of the Trump Tower—a soaring, opulently appointed space where water splashes down a six-story red marble wall into a pool. Together, Trump, AT&T, and IBM have provided a network of public spaces, open and enclosed, that is a most welcome gift to the people who use not just these buildings, but this entire precinct of the city.

Right, the galleria, with its glass canopy linking the tower and the small appendage. Below, the spare IBM greenhouse. Below right, the Trump atrium where nothing was spared. Across page, the handsomely detailed granite of an AT&T loggia.
San Antonio is Texas' most fragile city, an intricate web of small buildings and narrow winding streets spread out along the meandering course of the San Antonio River. Compared to Houston and Dallas it has long been an economic backwater, and even though development has increased dramatically in the last three years, it remains a comfortable, intimate working city in which modern high-rise office towers generally seem out of place. A notable exception is the new 28-story InterFirst Plaza, designed by Richard Keating, AIA, of SOM/Houston.

In form, materials, and detailing it is unmistakably a San Antonio building: modern but also decorative and respectful of local architectural precedents. Its sloping mansard roof and stairstep profile recall two nearby buildings that are products of a late 1920's burst of Gothic revivalism in San Antonio. It is eclectic and fanciful, a building of style and presence that doesn't upstage its neighbors.

It is also a bold exercise in formal geometry. The north and south facades (the long sides) are skillful combinations of modern and historicist detailing. One half of each facade is flat, with broad window bays and thick spandrels found on dozens of SOM buildings. But on the other half the flat wall suddenly breaks up into a series of deeply faceted bay windows that ripple down the facade, like a zipper being undone, to the third level. The building's four corners are out on a 15-degree angle, while its narrower east and west facades have full-length beveled recesses that culminate in dramatic rounded arches. The function of all this nipping and tucking isn't merely the creation of a piece of skyline sculpture, though it does that as well. San Antonio is a city of mellow, Mediterranean light, the product of its latitude and its native limestone, and any architect of sense would want to take advantage of it. InterFirst Plaza is finished in a rosy precast granite aggregate, with bronze glass and burgundy window mullions. The combination of warm materials and intricate faceting creates an exceptionally animated facade that changes character continually as the sun travels around it. It is a 28-story light show that the entire city can enjoy.

Along the street, where San Antonio traditionally is most alive, InterFirst Plaza is somewhat less inviting. A tight site, combined with stiff regulations governing the design of buildings in the San Antonio River flood plain, have produced some paltry public spaces. The plaza along E. Martin Street is little more than an overgrown planter; its companion on Convent Street is hard and cold, with a large multi-tiered area below grade that is completely inaccessible. Flood plain regulations demand that positive volumes be offset by negative ones, and this is the result.

The same regulations initially prohibited occupied space on the building's ground floor. Consequently, InterFirst Bank sits
A sequel enriches the Dallas skyline.

grandly on the second level, connected to an expensively finished but utterly vacant lobby by long escalators. These regulations were subsequently modified to allow for shops on the first level. Unfortunately, there is no direct access to them from the street. The large arched recesses on the east and west ends of the buildings, which seem to promise street entrances, lead only to large windows.

The parking garage is the least happy feature of InterFirst Plaza, looking more like an afterthought than an integral part of the overall design. Its one virtue is that, in keeping with San Antonio tradition, it has lease space at street level. Keating says that if he had it to do over again he might have put the arcade on the other end of the site.

"I knew that black building [One Riverwalk Place] was going up next door and I wanted to get away from it. But maybe I should have reversed the garage and the building," he says. InterFirst Plaza was the second building Keating designed for the Dallas-based Trammell Crow Co. and virtually the first building on which the company received critical acclaim, including an award from the San Antonio Conservation Society. The consequences are apparent in Keating's next building for the Crow company, the 52-story LTV Center in Dallas. LTV Center is a conscious evocation of the romantic skyscrapers of the '20s and '30s, a continuation of the tradition of Rockefeller Center and the Fisher Building in Detroit. It combines the smooth surfaces and crisp hard edges of orthodox modernism with a cruciform plan and a three-part classical division into base, shaft, and top. The top is a rather sporty continuation of the series of bay windows that are the logical version of the bay window design in InterFirst Plaza. It is an elegant, superbly proportioned building, dominant from every direction. LTV Center is the dominant new form on an otherwise crew-cut Dallas skyline, a heady dose of romanticism for a city that has long taken pride in being pragmatic. It is just the kind of building that Dallas needed. InterFirst Plaza, in its way, performs the same function. It does not try to dominate the skyline of San Antonio. It is in fact slightly shorter than the Tower Life Building, an act of respect that has not gone unappreciated by San Antonians. In attempting to fit in rather than take over, InterFirst Plaza provides a useful paradigm for the other architects and developers who come not just to San Antonio but to other older, essentially low-rise American cities. □

Below, LTV Center creates a bold, dominant profile on the otherwise crew-cut Dallas skyline. LTV's tower is a classic tripartite division and suggestive of the skyscrapers of the 1920s and '30s.

Right, InterFirst Plaza in contrast to LTV does not seek to dominate the San Antonio skyline, but fits into this lowrise city.
Five years ago, critic C. Ray Smith called Kevin Roche John Dinkeloo & Associates the "most esthetically daring and innovative firm" working for large corporate clients. Shortly afterward, the firm completed two corporate headquarters that gave new dimension to Smith's assessment: Union Carbide in Danbury, Conn., which was finished three years ago, and General Foods in Rye, N.Y., which was occupied in 1983.

"What I have never understood," says Roche, "is architects who write the same poem over and over again, in the same meter and style, even though the subject matter has changed." Union Carbide and General Foods are as different as they can be, but each marks new directions not only for Roche, but perhaps also for corporate architecture, in standardizing work spaces yet offering employees more opportunities for personalizing and controlling them, accommodating the automobile, and responding to varying concerns about image. General Foods is a departure mainly because of its image and composition, while Union Carbide is a *tour de force* in planning—a building truly designed from the inside out, whose starting point was an attempt to radically democratize the workplace.

Union Carbide's previous headquarters at 270 Park Ave. in
New York City was one of the first completely modular post-
World War II buildings designed by Skidmore Owings & Merrill. 
In interviewing almost 200 employees there Roche discovered 
that many of the concepts on which it was based and some es-
blished conventions of corporate life were arcane, costly, and 
plain foolish. In SOM's building Carbide had adopted a system 
requiring, for purposes of demonstrating position in the corpo-
rate pecking order, no fewer than nine office sizes and a range 
of furnishings and accouterments. The result, Roche found, was 
dissatisfaction and distraction from real business concerns. "Here 
were these mature, honorable people," he says, "being subjected 
to and administering a kindergarten system at costs that were 
sapping their finances and energies." Just moving partitions, 
furniture, and electrical equipment cost $1.5 million annually.

"I argued," says Roche, "that the guy who joins the corpora-
tion as a trainee and the man who retires as board chairman 
basically do the same job, meeting with people, answering phone 
calls, making decisions; they don't really require different sized 
spaces." By averaging the size of Carbide's New York offices, 
Roche came up with a standard 13.5-square-foot office that 
would do for everyone and allow employees to move up the
Cars and views are always close at hand.

ladder without ever moving physically. The only exceptions are 17 executives at the top, each of whom has two or three of the standard spaces, making Roche's architectural egalitarianism less than complete.

Because he also discovered, as had sociologists before him, that employees resent regimentation and want a measure of control over their own space, Roche chose as the model for the typical Carbide office the residential study or den and gave everyone a broad choice of furnishings, plus their own switches for lights, heating, and airconditioning.

From interviews, Roche also found that people disliked high-rise office buildings, in part because of the time wasted in waiting for elevators; that everyone wanted an office with windows; and that since the Danbury building's 6,500 acres would be in a virtual forest 60 miles away from New York City, everyone would want convenient parking. Roche's problem, then, was to accommodate over 3,000 employees in a low-rise building with window offices and parking without creating a two-mile-long building surrounded by a sea of cars. Among Carbide's directives to Roche was to disturb the landscape as little as possible and to create a building that would convey a benign, modest image.

Roche's solution was a 1.3 million-square-foot, four-story headquarters with parking at its center for 2,850 cars on four levels. At each level bridges link the building's corridors with the garage, so that employees' cars are only about 150 feet from their offices, which radiate from the main corridors in snowflake shaped clusters. There is no "room," as Carbiders call the offices, without a view. Though most offices are square, some are wedge shaped to reduce the amount of exterior wall. At the core of the building the garage has been interrupted to make room for reception spaces, dining facilities, a library, medical services, a store, video center, bank, and other amenities. In effect, this headquarters is a self-contained city. No one need ever set foot on the ground, and one of the criticisms of the building has been its resemblance to a scaled space capsule, albeit one tailor-made for its surroundings.

In fact, it has been bent to conform to the terrain, lifted onto tree-like columns whose height follows the landscape's dips and bumps, and covered with a matte gray anodized aluminum skin and glazed horizontal screens. It could easily be mistaken for an apartment building hidden in the woods.

Because it is so hidden, so huge, and impossible to see all at once from ground level, writers invariably describe it as seen from the air. From there it has been variously characterized as a "Galactian space station," a "sprawling metallic beast," "an Aztec frog sunning itself." Let's add to that a dinosaur-sized, many-legged, splay-toed lizard, with a winding highway as tongue issuing from its head, a curving road configuring its tail.

Each of the offices in these splay-toed appendages has a wood floor border and inset carpet of the occupant's choice plus furniture employees chose from full-scale mockups. (The furniture ranges from Chippendale to modern.) Between offices and corridors are built-ins that can be used for files, books, whatever, and operable office windows are screened by angled 16 percent transmission glass rather than blinds. For as Roche says,
Left, only indication of Carbide's huge size, as seen from neighboring meadow, is four-level approach ramp. Below, angled screens reduce heat and glare; third floor bridges link extremities of 'snowflake' pods. Bottom, to allow growth under building and accommodate irregular site, structure was lifted onto columns. Matte siding with chamfered panel edges makes the building resemble a huge apartment complex.
When you put in Venetian blinds you don’t have windows you have Venetian blinds.” Lighting comes from floor lamps and a splayed fixture above each desk that throws light both downward and up. The absence of ceiling illumination allowed Roche to use an eight-foot, three-inch ceiling throughout, reducing the height of the building and therefore construction and energy costs.

Reportedly, the building uses only half as much energy per occupant as did Carbide’s New York City headquarters. The great energy saver is a sophisticated heating/cooling system that takes use of a “tank farm” of 10 huge water tanks. Each holds 0,000 gallons that are circulated to fan coils throughout the building, chilled or heated at night or during other off-peak hours, and stored in tanks for use the next day. The system also units to recapture warmth created by people and mechanical and electrical equipment, and the whole apparatus is continuously monitored and adjusted by computer. You may have guessed that those operable windows are now kept locked except for window cleaning.

More troublesome tradeoffs for energy savings are the low ceilings. They make the building’s broad corridors feel dreary, a sensation that is amplified by dark green carpeting, a parade of dark brown, vinyl-clad fat columns, and a matching laminate for doors and trim. Particularly where the view consists of barren, covered courtyards and the gray aluminum panels of the garage in the core area, the feeling brings to mind pictures of prisons.

But also in the core are some of the building’s most inventive spaces. Though the first floor reception area, which resembles a hotel lobby, is uninspired, the varied dining rooms show Roche at his most imaginative. There is formal seating around a fountain, also a low “club room” with fireplaces at each end, and a many sided, three-story latticed gazebo. There are private alcoves, public counters, and booths separated by glazing. And there are so many mirrors, a hallmark of Roche’s interiors, that it’s often hard to know whether you’re looking through a glass darkly or into one. And most everywhere are wide windows giving long views of the soft, surrounding hills and woodlands, which remain remarkably unspoiled by Union Carbide’s gigantic new world headquarters.
While Union Carbide's informal, almost nonexistent exterior image emerged from requirements of program—following the principal tenet of modernism—and from the corporation's wish to downplay the vast building to the point of camouflaging it, at General Foods, form preceded function.

The shell was the starting point for General Foods' design and is by far the most striking and controversial aspect of the building. Classical and formal in its symmetry, axial approach, and hierarchy of elements, General Foods is an eye-stopping, gleaming white image resembling a Beaux-Arts palace with two equal wings flanking a central rotunda, which is penetrated by a roadway and garage where one might expect a grand entrance. At the same time, the building recalls a huge, 21st century, otherworldly object that an extraterrestrial executive director might have parked on a meadow just off I-287 in the village of Ryebrook, N.Y. Unlike Union Carbide, which harmonizes to the point of fading into its surroundings, General Foods quite deliberately dominates its suburban residential setting, looks far too large for its site, and dwarfs the carefully landscaped trees and rocks. Roche admits that the corporation did not look for such an assertive monument. The idea was his.

He explains that "Carbide is essentially an engineering, scientific group and wished to have something pragmatic and technologically current, while General Foods is more marketing and consumer oriented, and so should make a strong, more flamboyant statement."

In an interview not long ago with another writer, Roche also called on European feudal history to bolster his analogy between castle and corporation. "The great castles in the Loire Valley," he said, "were in a manner of speaking headquarters buildings. They were administrative centers in the socio-political scheme of things." This would seem to more accurately describe the role of government, and Roche admits that "General Foods' ascendant, regal presence" would not be suitable for a center of democratic government.

Why did Roche choose an expression based on classical models, which is a decided departure from what Charles Jencks has termed his late modernist style? Roche answers, "The current interest in history is an influence as is almost anything else going on. Classical references, an axial composition, formal approach, a central element that looks like a cupola, are references that people connect with important buildings, and important buildings are always headquarters of some sort. Also, the signals that you get in the few minutes you have to see it are familiar. It is a sort of billboard advertising the company."

Above, front entrance as seen from roadway and right, below, as reflected in manmade pond, is only for visitors. Top right, rear elevation where employees enter is planned for future extension. Of this 'upstairs downstairs' situation Roche says, 'employees see the building from the inside looking out and are well aware of what it looks like.'
Designing for 'the princes of our day'.

C. Ray Smith might have been referring to the as yet unfinished General Foods when he wrote some years ago, "The work of Roche Dinkeloo realizes, it seems, the utopian dream of the industrial revolution when, as now, corporations have progressed from manufactories to management headquarters. The dream seems in their work realized, expanded to a superscale, ordered to a glittering tidiness, and suggesting the overbearing authority ... of corporate existence. Roche Dinkeloo design appropriately and consummately for the princes of our day."

And, it probably isn't inappropriate for the makers of Tang, Dream Whip, and Country Time to bring us a spaceship-like vision with allusions to a palace and to sheath it in quasi-residential aluminum shingle. Asked to describe GF's image, the company's director of communications said it showed "pride and professionalism. It's like our food—clean, and white. No mention of castle or space ship."

Despite its bulk, the exterior of the 560,000-square-foot, seven story building appears oddly impermanent, something like a stage set, in part because it is inherently theatrical, in part because it looks like it is floating on the manmade pond surrounding it.
The egalitarianism that guided Union Carbide’s plan was not of primary interest to General Foods where Roche had less latitude in programming. But client and architect were able to use some of the features of Carbide. For example, there are only two standard office sizes, 12x14 and 14x18 feet (plus a 24-foot-long office for top executives). As at Carbide, offices have a domestic feel, and employees were allowed to choose one of the three types of furniture that proved most popular at Carbide.

Carpeting, rose-colored with inset tan corridor runners, is standard throughout the building, except on the seventh floor. As at Carbide, built-ins, in two tones of gray rather than Carbide brown, raddle between corridor and perimeter offices. Above these cabinets are clerestories bringing light into hallways and secretarial work spaces, which are pleasant and well planned. The same is true of the offices, which have no ceiling lights and relatively low ceilings, as do the hallways. But at General Foods corridors are not dreary or oppressive as they are at Carbide, mostly because of the clerestories and the use of warmer and lighter colors.

Also different from Carbide is the special treatment given to top executives, who occupy the dome’s seventh floor “tiara” as it is sometimes called, where ceiling heights rise to over 11 feet, wood trim is darker, finishes finer, amenities plushier, offices larger, and the choice of office furniture and accouterments almost limitless.

Like Union Carbide, General Foods has a reception area that looks like a luxury hotel lobby and gracious public spaces for meeting and eating. But unlike Carbide, General Foods has a genuinely grand space at its center—a 95-foot-high, domed atrium. The space has spectacular views, a rather Baroque grand stair, adjacent dining room seating for 400, trees encased in mirror-clad pots, and a dome lined in a sound absorbing glittery mirror finish.

Mirrored surfaces are omnipresent in the public spaces, reflecting refracted, ever-changing images. They have become something of a signature for Roche, whose architectural images have changed as radically from one commission to the next as visions reflected in glass.
A Benediction For Contradiction

Venturi, Rauch & Scott Brown Wins the AIA firm award.
By Michael J. Crosbie

Complexity and contradiction. Ugly and ordinary. By now the phrases are well-worn, at this date even a bit nostalgic. But no other architecture firm in America today can command such immediate recognition of its ideas and buildings with such cryptic phrases. Venturi, Rauch & Scott Brown will receive this year’s AIA firm award at the Institute’s convention this June in recognition of its “collaborative practice, which has so profoundly influenced the direction of modern architecture and urbanism,” to quote the statement of the awards jury, chaired by Robert Geddes, FAIA.

Robert Venturi, FAIA, a native of Philadelphia, received his master’s degree from Princeton in 1950, then studied in Italy in the early ’50s as a fellow of the American Academy in Rome. He and John Rauch, FAIA, who studied architecture at the University of Pennsylvania, graduating in 1957, started their own firm together in 1964. Two years later, Venturi’s Complexity and Contradiction in Architecture appeared, christening a debate on modern architecture that continues to rage in myriad forms. Denise Scott Brown, a native of South Africa, graduated from Penn with two degrees—a master’s in planning in 1960 and a master’s in architecture in 1965. She began her collaboration with Venturi in the early ’60s, and in 1967 they were married. A dozen years later her name was added to the firm.

Venturi, Rauch & Scott Brown embodies many of the qualities identified with its architecture. The firm is contradictory, ironic, iconoclastic, unpredictable, ordinary. Its office is located in the Manayunk section of Philadelphia, a working class neighborhood near the Schuylkill River. The firm moved here in 1980, occupying a three-story, 1880s commercial building on Manayunk’s Main Street. This particular Main Street is just right, with Venturi, Rauch & Scott Brown surrounded on all sides with delis, video arcades, gin mills, and furniture stores. It’s comforting to find these architectural sympathizers of the honky-tonk in the very midst of it.

The building itself is ordinary, with high ceilings and big windows. “It’s been used as a factory and at one time was a roller rink,” explains Steven Izenour, one of two senior associates (the other being David Vaughan, AIA). The principals’ offices, conference room, reception desk, and a drafting room are on the top floor. On the next floor down are two large studios sand-whiching a photo lab, and on the bottom floor are work spaces for building models and casting ornament that the firm designs.
Also on this lower level are Texaco signs and the golden arches the greater part of the "Signs of Life" exhibit that the firm did (or the Smithsonian in 1976) and a roomful of drawings and models waiting to be organized by an archivist. "We just hired one," says Izenour.

The office is populated by a group of surprisingly young people, about two dozen in all, who appear to be in their late 20s or early 30s. Most of them come from local architecture schools such as Penn, Drexel, and Temple, with a few from points beyond. This fact seems to account for the graduate design studio atmosphere in the office, with its "messy vitality" spilling off tack boards and desk tops, littering the floor with racing paper, cardboard, and material samples. The image gives credence to Izenour's observation that "in most places, you'd have to pay for the kind of education you get here; it's in awful darn good post-graduate education."

A number of these young folks are project managers for work currently on the boards or just coming to fruition. Among these projects is the site planning, landscape design, and exterior design for a new molecular biology laboratory at Princeton University (now being closed in); a natural habitat primate exhibition facility and visitors center at the Philadelphia Zoo (now starting construction); restoration and adaptive use of the same zoo's Antelope House to include children's exhibits scheduled to open in April; an art museum for Austin, Tex., now completed in schematic design and awaiting approval of a local bond issue. And as an indication of the breadth of the scale of work, a new tea service is currently under design along with a center city development plan for downtown Memphis and a $20 million art museum for Seattle.

In and around the office dart Venturi, Rauch, Scott Brown, Izenour, and Vaughan—discussing a drawing here or clarifying an idea there. You might say that the firm is extraordinary in its ordinariness, to borrow a Venturi phrase, generating exceptional work (which has won three national honor awards and over 50 local design awards) out of everyday surroundings and circumstances. "They don't do their own working drawings, do they?" asked a friend of mine who considers himself a nuts-and-bolts architect. As a matter of fact they do, including a lot of other seemingly mundane things such as writing specifications, using the Sweet's Catalog, and, yes, even marketing, all of it running counter to the romantic notion of lone geniuses sprouting buildings as easily as thinking about them.

"All of us deal with management issues," says Venturi about the three principals and two senior associates. "John Rauch from the beginning was more technically oriented, and I was more design oriented, but I still rely on John very much for architectural criticism; he's a very insightful critic. Denise is an architect as well as an urban designer, and a critic in many other fields. David Vaughan has lately been getting more involved in management, and Steven Izenour has been leaning toward exhibition and communications work. But we're all designers," he stresses. Scott Brown adds that the firm's growth has sharpened the interaction of the five. "In one month a couple of years ago we grew by 15 people," she explains, "and that suddenly threw into high relief a lot of management questions. We thought that if we hired a full-time manager we might kill what in high-falutin terms you might call the 'culture' of this place. That's a very special thing to us—the way we all work together and the kind of organization that comes from within."

In describing what he considers the most important asset of the office—the people who work there—Vaughan says that "we attract people who are interested in design, and we search for those who are looking at all the aspects of the process of architecture . . . all the things you need to do to make a good building." Because the office takes a multidisciplinary approach to design, many of those in the office have backgrounds in economics, social science, or art. "There are a lot of people who do research and a lot of people who design buildings," says Izenour, "but very few have gotten to the point where they can put the two together," which, he adds, the office has gotten very good at. Scott Brown's experiences at Penn in the 1960s, where architecture was allied with other fields in common pursuit of a design problem, is very much a part of how the firm designs today, "moving around a large-scale problem from many different people's point of view," says Izenour, "but keeping the focus on design."

A variation on that theme is what many people associate with the writing of Venturi and Scott Brown—namely learning from as many sources as possible, although at times there is a tendency to overdo it. "We sometimes overpower quite a small building with too many ideas," explains Scott Brown, which springs from a wealth of knowledge about urbanism and history, or an
appreciation of the building’s context. “We go through our environment with swivel heads,” she says, “looking around us all the time.”

Venturi has been quoted as saying that he considers himself not a theorist by nature but more a “pragmatist and a craftsman,” and this seems to personify the firm itself. The books and the ideas are secondary to a shared concern with the thoughtful making of architecture. “You should never design buildings to prove points, to justify your theory,” Venturi cautions. “I remember what Jean Labatut, one of my great teachers at Princeton, referred to as ‘creative forgetfulness.’ To be really creative, when you sit down to start a job you forget all of your ideas and your theories and concentrate on the thing at hand. Somehow your generalizations and the ideas take care of themselves. Very often we'll be struggling away at something, working on it, and I’ll look at it and say, ‘Ah, that is complexity and contradiction, isn’t it?’”

There is also a great pride taken in the pragmatic nature of the firm in regards to its work. “We're real hardnosed on that score,” says Izenour, “holding budgets and meeting deadlines. We're not a wishy-washy group of people who indulge ourselves with our own ideas.” The pragmatism, in fact, appears to be part of the theory, part of the appreciation of the ordinary and the celebration of the complex. “Each project is done in a way that’s as sane as a hammer handle,” says Rauch. “It starts with the obvious and accepts the obvious—square is square, two stories is two stories. Some architects seem to get so panicked when they're faced with those realities and attempt to distort them rather than deal with them.”

Perhaps this is why, on balance, the work is consistent without being predictable. The consistency comes from a way of looking at the world, an openness to learning from anything from Lutyens to Las Vegas. “We’ve been very influenced by Herbert Gans’ Popular Culture and High Culture and view ourselves in a society where there are many different tastes,” says Scott Brown. “For a time it looked as though architects would be more open and hang looser about other people’s values,” she adds, “but the way postmodernism has gone, it’s just achieved a new set of fashionable values.”

Consistency with unpredictability is also reflected in the clients that Venturi, Rauch & Scott Brown attracts. “If you took a profile of our typical client,” says Scott Brown, “whether they’re an urban bureaucrat, a president of a university, a developer, or a young poet living in the woods, they all have an entrepreneurial character to them and they're kind of testing themselves. They like to match wits with us, they like to tease us. They egg you on, laugh at you, laugh with you. They become friends, but you fight them or occasion too, in a very personal way.” From these observations Scott Brown has developed a self-revealing theory: Clients tend to choose architects who are very much like themselves.
With everything from furniture to city plans to their design credit, what project would Venturi, Rauch & Scott Brown want to work on next? "We'd like to do a highrise," Venturi perks. The irony of the highrise is that it's the simplest program that exists—simpler than a house, simpler than a museum, it's simpler than anything. And yet, the developer who gives these things up says, 'Oh, you can't do a highrise because it's too complicated for you.' Meanwhile, we've been doing these much more sophisticated programs all along." Scott Brown reports perplexity on the part of colleagues when they hear of this yearning.

The architects do them say, 'Why would you want to do highrise when you can do Wu Hall or the Seattle Art Museum?' you'd get bored by it." She smiles and then adds, "It would take about five or ten of them before I got bored."

The distinction of the firm award may or may not deliver a highrise project, but it surely indicates a change in the climate of architectural recognition. "I guess it's one of the number of gns I've seen that we're no longer to be regarded as potentially intimidating or frightening or out of the mainstream as we once were," suggests Rauch. Izenour also reports a different attitude on the lecture circuit. A decade ago he was viewed as "bomb thrower" whose audience would usually respond with that's interesting, but you don't expect us to take it seriously, do you?" Now there is an "obvious respect," he says, "a deference and interest that was not there before."

An appreciation of the impact of Venturi, Rauch & Scott Brown's ideas and architecture reveals the source of the changed attitudes. In a paradoxical way, the work is more acceptable today because its effect on architecture over the past two decades has been so dramatic. "Complexity and Contradiction in Architecture is a seminal document," says Ada Louise Huxtable, hon. AIA. "It was the right book, the right theory at the right time. It was an eye opener for the profession, a refreshet and a reminder that there was much to be learned from history at a time when history was becoming acceptable again. I think a great deal of Venturi's theory has entered and transformed professional practice to such a degree that it would be very hard for it not to be part of the mainstream by now," she says.

Rob Gutman, hon. AIA, who has studied the profession as a sociologist, sees acceptance of Venturi's ideas and work as an indication of a shift in taste. "A change in taste about that is considered acceptable architecture doesn't occur very often. Venturi getting the firm award after being rejected for IA Fellowship only nine years ago is certainly a sign of it."

At the same time, Gutman perceives a contradiction in the man that gives the firm its own special character. "Although he's an avant-garde architect he doesn't have an avant-garde personality," says Gutman in describing Venturi. "In terms of life style, behavior, and attitudes he's a very conservative person. I think that conservative side of his personality, as distinguished from his ideas, is symbolized in his practice."

The way that much of Venturi, Rauch & Scott Brown's architecture responds to ordinary situations in extraordinary ways continues to impress Cesar Pelli, FAIA. "It is very responsible in a fantastically witty way," he remarks. "Their capability is to take mundane work—the type of work that important architects tend not to get involved with—and do it in a way that does not transform the project into what it is not, without overlooking it." Pelli pauses for an example. "I'm thinking of their fire station here in New Haven. It's a delight to see that work because it's done with such simple means. They deal with the nature of the site, pinpoint what is essential about a place, and do their best to respond to it."

Many who are less than delighted about the state of architecture today, in terms of its stylistic imbraglio, have identified Venturi and his colleagues as the progenitors of the current state of confusion. Robert Maxwell, dean of Princeton's school of architecture, doesn't see it that way. "Although Venturi started off a movement that in a way is hedonistic, self-indulgent, and undisciplined," he explains, "his own designs are not of that character. They have an inner discipline." Maxwell also lauds Venturi's work for its integration. "There aren't many architects who can speak theoretically and then give in their own work the evidence that clinches that theory," says Maxwell. "I think that's a measure of his greatness."

Architectural historian Vincent Scully, who wrote the introduction to Complexity and Contradiction in Architecture, remarks simply that Venturi has "certainly been the most influential architect of his generation, both here and abroad." Scully identifies Venturi's greatest contribution as bringing symbol back into architecture, because "it's through symbols that human beings live. There were a lot of people, from the 1950s on, who were doing all kinds of 'formal inventions.' They were standing buildings on one finger, turning buildings inside out, and generating shapes that were never dreamed of before. But it turned out to be empty." From the very start, says Scully, Venturi considered architecture in fundamentally symbolic terms, "and that is what changed everything." He cites Venturi's mother's house in Philadelphia, completed in 1962, as the perfect example of Venturi's ability to embody architecture with "sweetness and goodness, gentleness and wonderful kind of innocence."

Perhaps Robert A. M. Stern, FAIA, best sums up the impact of Venturi's ideas and the importance of the firm's work today. "It's impossible to recall," says Stern, "without both the blood boiling and the giggles rising, how incredibly hostile and neurotic the reaction of the architectural profession was to these very ideas 20 years ago. I first and foremost have always thought of Robert Venturi and his colleagues as building architects. That they have a theory is fantastic, because it energizes the buildings. But that they have enormous talent is more important, and their buildings are wonderful for that reason. Now," Stern quips, "Bob Venturi should get the gold medal."
Evaluation: Kahn's Powerful Presence At Exeter

His library and dining hall transcend time. By Annette LeCuyer

Phillips Exeter Academy could boast about several nationally known architectural firms that have recently designed buildings on the campus. However, Louis I. Kahn is the only architect cited in the current school catalogue, and his library is featured on its cover. Kahn's aura still glows in this idyllic New Hampshire prep school community, although during the 14 years since the completion of his library and dining hall, architectural tastes have shifted. That Louis Kahn's reputation endures at Exeter is evidence of the academy's philosophy, which, in matters architectural as well as educational, avoids fashion and clings to what its perceived as enduring in value.

The completion of the library and dining hall in 1971 culminated 10 years of activity. After several years of work on the library with another architect, the academy realized its directive to create edifices in keeping with the surrounding neo-Georgian buildings was producing bland, undistinguished architecture. Under the leadership of Richard W. Day, then principal of the academy, the emphasis shifted from making neo-Georgian look-alikes to achieving the finest possible contemporary architecture. This led to the decision to commission a new architect for the library, culminating in a short list including Kahn, Paul Rudolph, I.M. Pei, Edward Larrabee Barnes, and Philip Johnson. The brief, which reads as if destined for Kahn, described the library as "...no longer a mere depository of books..." but as a building which "...would affirm the regard at the academy for the work of the mind and the hands of man." The selection committee's visit to the Salk Institute of Biological Studies clinched the decision.

Kahn's library was commissioned in 1965.

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and the dining hall shortly afterward. The two buildings were designed and built concurrently. They are located on neighboring sites, share a central mechanical plant, and are built of the same materials. In spite of all they hold in common, the buildings are not perceived as a pair, but individually to the extent that each has armed its own place in the academic community: The library is much loved. The dining hall, although considered a one-building, is less highly regarded. In this respect, it is significant that Kahn worked with two client committees from the academy, having been initially selected by the library committee only. Although overseen by the academy trustees, the two committees did not meet jointly with their architect. In client terms, therefore, the library and dining hall developed quite independently.

Conceptually, the two buildings might be seen as variations upon a single theme, as a study in contrasts. The library, built on the site of the former principal's house, is a high profile building occupying a prominent position on the original campus quadrangle. The dining hall, situated immediately to the southeast, is single-storied, tucked in among other buildings, and hardly visible from the quadrangle. The library is surrounded by footpaths, trees, and lawn. Its counterpart is flanked by a vehicular service yard to the south, Elm Street to the east, and a small parking area on the northeast. Only the northwest corner is connected to the network of footpaths crisscrossing the campus.

Both buildings are square and nearly the same dimension in plan. While the library is organized concentrically, the dining hall has a central north-south spine that includes the kitchen, servery, and dishwashing areas, and the stairs and toilets. Its spine is flanked by dining rooms to the west and east. The central focus of the dining hall is the servery, a functional space with a low ceiling, which is surrounded by the more lofty volumes of the dining rooms. The heart of the library, by contrast, is Rockefeller Hall, a two-story-high ceremonial space surrounded by the densely stacked study floors.

The eroded corners of the library building contrast with the semiprivate eating areas at the corners of the dining hall that are articulated as towers, points of positive emphasis. While the library is symmetrical within its square geometry, one corner of the dining hall is inexplicably enlarged, introducing asymmetry to the composition. With more glass than wall, the library is an extrovert building that makes full advantage of superb views across campus by day and glows like a lantern at night. The dining hall is introverted and without windows, except at the corners. Both buildings are entered on the north via understated entrances. However, the library's colonnade, a magnet that draws people in from all directions, has no counterpart in the dining hall. The gracious curved stair that effortlessly connects the colonnade to the dramatic Rockefeller Hall contrasts with the dining hall's no-nonsense entrance onto a blank brick wall followed by an unremarkable route past the dishwashing area to the servery.

Kahn's Exeter buildings do not have the same seemingly inevitable relationship with their site as, for example, the Salk Institute. Built to provide workplaces for 400 students and to house a 250,000-volume general collection as well as special periodicals, rare books, fiction, and

Across page, library (left) and dining hall. Below, the dining hall. Bottom, library and early campus building.
reference collections, the library is visually the dominant building on campus and the tallest in rural Rockingham County. It therefore assumes an air of monumentality among comparatively modest buildings. Commanding such authority, the library might be expected to be the termination of a major cross-campus axis, the appropriate focus of a formal plan like Jefferson’s rotunda library at the University of Virginia. But the Exeter building, neither axial nor central, is placed along one of the long sides of the quad with its east elevation protruding into the green space without respect for the existing building line. Thus, the library — like a boulder in a stream — disrupts the movement of students along the edges of the quad, forcing them to walk around the structure and drawing them into the ground level colonnade. It therefore appears willful rather than effortlessly inevitable in its disposition. The placement of the dining hall, turned askew relative to adjacent buildings, is an equally self-conscious gesture.

The scale of the library is difficult to grasp. On the one hand, Kahn wanted to make the building appear smaller than it is because of an Exeter ordinance limiting building height to four stories. From the exterior the library indeed appears to be a four-story structure on a piano nobile. It in fact rises eight stories above ground with alternate mezzanine floors set back from the perimeter so that all openings in the external walls are double height. On the other hand, the bricks of the library are smaller than standard, a device that increases the apparent size of the structure. Amusingly, Kahn’s skillful manipulation of scale is also confounded by the high school students of the academy who, although appearing to be mature adults, are perhaps seven-eighths full size. Like Alice in the looking glass, the scale of the library shifts relative to the measuring stick.

The library is instructive about how it is made. While the dining hall is comparatively mute. The library’s loadbearing walls of local, richly textured waterstruck brick are a lesson in construction logic. The brick piers become slimmer and the jack arches shallower as they move up the building and have less structural work to do. Openings in the wall, which are equal in width to the structural piers at ground level, become correspondingly wider with each story. The brick walls are buttressed internally, creating a thick skin that wraps around the concrete structure, which is itself wrapped around the central void. The concrete structure also makes arches, but of a much greater scale than the bricks so as to emphasize its utility over greater spans. The internal organization of the building in both plan and section is reinforced — even dramatized — by the layers of structure.

Unlike the library, the dining hall does not indulge its materials, seldom allowing the bricks to be what they “want” to be. Although made of the same fine masonry and concrete, the dining hall is a restrained, thin-skinned building lacking the structural virtuosity and spatial drama of the library.

Since its completion, the library has become more than a storehouse of books, though its collection is still growing into its new building, currently filling just under half of the available shelf space. As anticipated by the program it is the intellectual and social focus of the campus. A number of staff have established offices and run seminars in the building. “Some of the students literally live here,” says librarian Jacquelyn Thomas. The study facilities are so popular that, at one point, it was discovered that students were entering the library after evening closing via the mechanical services tunnel from the dining hall. The study carrels, some of which are assigned to day students, show clear signs of homesteading, with
assisted by student prefects. There are no remote surveillance systems or security checks at exits. To date, problems with vandalism or theft of books have been negligible.

The variety of study facilities in the library contributes greatly to its success. In addition to the carrels at the windows, which were significant in generating the scheme design, there are enclosed rooms, large tables, and, most popular, homes-away-from-home in the form of upholstered sofas and leather armchairs grouped around fireplaces and windows. Monumentality has been cunningly mitigated by domesticity so that the building feels more like a literary club than a high school library. As well as serious study, the lounge atmosphere encourages the equally important casual encounter with knowledge. The anti-institutional ambience is strengthened by paintings, sculpture, and model ships displayed throughout the building, and by the Oriental carpet in Rockefeller Hall. The 2 percent of the construction budget reserved for the acquisition of works of art has been well spent.

Critics might say that Kahn made his buildings difficult to change. However, the library, which would appear to be fixed, is proving to be very flexible. Rockefeller Hall, in addition to functioning as the reception and control point for the building, also fulfills many unanticipated needs. It has hosted film festivals, rock bands for school dances, concerts, weddings, and receptions. Alumni dinners are even held in this space, catered from the dining hall and served buffet style from the circulation and card catalogue desks. The wallwashing downlights mounted at low level around the perimeter enhance the atmosphere for evening functions. Acoustics are judged to be excellent so that a grand piano has become a permanent part of the space. "When I became librarian, I thought I would devote my time to preparing learned papers," reflects Thomas. "Instead, I have spent a lot of time entertaining." This expanded job description for the librarian is, incidentally, whole-heartedly endorsed by the academy's administration.

The library is also changing to accommodate new modes of learning. For example, part of the mezzanine, formerly divided into private offices, is now being converted into a micro-computer suite by the removal of the timber bookcases that infill the jack-arched buttresses of the perimeter brick wall. The simple choice of full- or half-height timber storage units in the arched openings or, alternatively, the omission of these units has enabled many areas of the library in addition to the computer suite to be adapted to new uses. Kahn has demonstrated that it is possible to have ranges of small rooms, intercon-
necting partially screened spaces, and large open work areas without suffering the anonymity of neutral column grids, bland suspended ceilings, and lightweight demountable partition walls.

Although spatially adaptable, the electrical modification that has been carried out to accommodate the computers is less successful. Unsightly conduits have been face fixed across timber panels and brick walls alike. The required electrical capacity might have been added, albeit at greater cost and disruption, to the conduits cast into the floor screed under the carpet.

Complaints about the library are minor. Some bookstacks have been removed in the ground level periodicals room that, without benefit of the top-lighted central void, depend on the penetration of daylight from the perimeter. Yet, because the periodicals room is recessed behind the arcade on all sides, it remains a relatively dark and less satisfactory space than the study areas on the floors above.

Library staff feel that the building’s single elevator makes it difficult to move both people and books through the library efficiently. A second shaft is ready and waiting, but its installation was omitted in cost cutting during construction.

Students complain that the head-height brick balustrades with their narrow vision slots totally block views of the campus from the top floor seminar rooms and terraces. Kahn originally intended to make low balustrades but was instructed by the client to build high barriers to ensure student safety. The obscurity of the main entrance to the library, mentioned by many critics when the building opened, remains a concern today. This is no hierarchical distinction between the front, back, and sides of the library, and the entrance is marked externally only by the subtle glazed infill of four bays of the colonnade on the north elevation. Kahn might have countered the criticism by defining “entrance” not as the location of the front door but rather as a complete sequence of movement starting on the campus footpaths and ending in Rockefeller Hall. Part of the problem may stem from the fact that Kahn’s landscape scheme for the library has not yet been fully implemented. A brick and granite forecourt surrounded by stone benches and a low hedge was originally intended to distinguish the north entrance elevation from the library’s other facades.

The library has been well maintained by the academy. Maintenance staff say that the interior lighting is difficult to service, with access proving particularly difficult to the fittings in the soffits of the bookcases that form the balustrades around the central void. Likewise, external window washing becomes a chore due to the requirement for scaffolding. In spite of standing rain and snow and extremes of temperature, the flat roof terraces have performed well. There is, however, evidence of water penetration through the walls of the corner stairs. The exposed duct system is showing signs of wear and tear, with decoupled sections of ducts no doubt contributing to the balancing problems experienced with the HVAC system.

The most serious concerns about the building’s performance have been related to the exterior timber infill panels. Presumably, because of Kahn’s desire for the pure expression of materials, the exterior teak was untreated and cavity panels were originally uninsulated. The building was designed prior to the era of energy consciousness. However, the bitter New England winters made the private offices draughty and uncomfortable and the window study carrels—so fundamental to Kahn’s idea of the building—virtually uninhabitable. The problem was compounded by the failure of the electric heating units that were originally in panels between the outer leaf of teak and the inner leaf of white oak. These units became inoperable because students dropped bits of plastic onto the heaters that, when melted, spread noxious fumes through the HVAC system.

In some areas of the library, selected panels have been removed and insulated with polystyrene batts. It has not been possible to insulate throughout the building because of water penetration through the panels. It is particularly unfortunate that many of the bookshelves designed as integral parts of the window panels cannot be used because of risk of water damage to the library’s collection.

Although teak is generally considered to weather well au naturel, the exterior timber of the library developed a healthy growth of fungus and black mold that, combined with the effervescence from the masonry mortar, made the exterior of the building unsightly. Finally, in the summer of 1983, high pressure water treatment was used to cleanse the brick, and the teak was scoured with oxalic acid. Both brick and timber were subsequently sealed. As a measure of their respect for Kahn’s intentions, the academy searched for and found an invisible wood sealant, a bleaching oil that has not altered the natural weathered appearance of the teak panels.

The dining hall, in contrast to the standard American high school cafeteria, provides a civilized setting in which to eat. Students and staff alike acknowledge the superiority of their facility. Just as the library holds its books for all to see, Kahn felt that the dining hall should enable its users to enjoy food preparation. His philosophy has not been readily accepted. The nature of the dining hall, originally conceived as a tough, functional facility for a boys’ school, may have felt too brutal when the academy became coeducational shortly after the building.

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n completion. The location of the open plan kitchen and dishwashing areas on center stage was deemed tasteless, and kitchenutter combined with the sound of human voices created a din exacerbated by large areas of brick and exposed concrete. The kitchen and dishwashing areas have been enclosed, and steps have been taken to dampen the noise. Intrusive orenge, green, and yellow felt-covered sound sorption panels have been fixed to the ceiling; pendent lighting system, and crude pieces of white acoustic ceiling tile have been fixed to the soffits of the sloping concrete roofs. As well as absorbing sound, it is clear that the panels' colors are intended to brighten up a space that proved too dark and dreary. The fireplaces, which could have provided warmth and cheer, are now rendered virtually unusable due to the lateral expansion of the services into the dining areas. A mezzanine range and inglenook fireplace overlooking the dining areas are devoid of furniture and bear no signs of use. This wasted resource could become a vital space with creative building management. It is unfortunate that the shortcomings of the dining hall could not have been resolved in a manner that improved the building both functionally and esthetically. While a measure of Kahn's library at Exeter is that the architectural idea has sustained the client to tackle the building's problems creatively, this appears not to have been so in the case of the dining hall.

Considering the current preoccupations of the architectural profession with complexity, symbolism, and wit, perhaps the most impressive aspect of Kahn's buildings in retrospect is their simplicity, abstraction, and awe-inspiring solemnity. The Exeter buildings are taut and spare; only a few rich details are savored. The library's travertine and concrete stair and oak study carrels are all the more satisfying because they are emphatic in ascetic surroundings. Yet, the library and dining hall—unlike many recent buildings—do not bear the scars of budget cuts and too-fast construction programs. The austerity is intentional, not circumstantial, and thus bears the hallmark of quality rather than deprivation.

Because Kahn's self-imposed austerity avoids the gimmicky trappings that currently seem to define the architectural "style" of buildings, the library and dining hall do not look dated. The ambition of Phillips Exeter Academy was to achieve the finest contemporary architecture. What Kahn gave them instead was a timeless vision—at once classical and contemporary—of institutions that form the very foundation of human culture.
**Historicist Natatorium**

**Appended to a Gymnasium**

The new Leonard Natatorium at St. Paul's Macalester College is postmodern architecture at its best: arresting, yet subtle. So subtle, in fact, that it's ambiguous. Is it really a new building, or has the neo-Georgian gymnasium next door simply sprouted a new stem?

Designed by the Minneapolis firm of Leonard Parker Associates and named for George and Wilma Leonard, its benefactors, the 10,500-square-foot addition to the liberal arts college athletic complex houses a 25-meter, six-lane, competitive and recreational pool and seats up to 360 spectators on surrounding bleachers. The project also included remodeling of the existing gymnasium, basement locker room, racquetball courts, and energy improvements.

The objective was to design a contemporary building compatible with the adjacent gymnasium. The resulting $2.8 million structure is at home in its context, and yet adds to it. Integration is accomplished with large arched windows, a compatible cornice line, and the choice of matching exterior brick. But the architect went further.

Crowning the facade is a decorative frieze in Moorish geometry of precast concrete inlaid with bright blue tile. The vertical precast ribs that connect, but also bisect, both the frieze and the Palladian windows are like bars on a musical scale. They rhythmically punctuate and segment an otherwise horizontal composition. The result, from a distance, is a graceful reinterpretation of the adjoining gymnasium's Georgian arcade.

Inside, the original stone entrance to the gymnasium presides like a classical orator on the balcony over one end of the water. On either side of the interior, the monumental windows are both decorative and functional; their Palladian pattern is striking, and their translucent glass, while admitting abundant light, prevents condensation and minimizes glare on the water surface. Large translucent skylights over the laminated maple bleach-
Housing a 25-meter pool, this addition blends with and reinterprets existing neo-Georgian gymnasium by use of arched openings, exterior matching cornice lines, brick facing, decorative frieze. Subtle departures of burgundy, terra cotta, and beige plaster and ceramic detail the interior. Laminated wood structural beams and exposed metal ducts articulate, but do not dominate, the space. The resulting combination of shapes, forms, and colors gives Macalester not just a swimming pool but a reflecting pool.

Macalester’s Leonard Natatorium is a clear departure from the modernist utilitarian tradition of so many college athletic facilities constructed in the last half-century. In this lively and delightful composition, Leonard Parker Associates has reinvoked an ancient Greek ideal: the association between athletic prowess and beauty. Joanna Baymiller

Ms. Baymiller is deputy director for planning and development for the Minnesota Museum of Art, St. Paul.
According to William Morgan, FAIA, of Jacksonville, Fla., earth is the most natural building material, and man should mold the landscape to create unobtrusive architectural forms.

The Gildorn Savings Institution wanted a design sensitive to the landscape of central Illinois and specifically the region's immense pre-Columbian geometrical earthworks and large pyramidal Indian mounds. In these two suburban, drive-in branches, Morgan was able to combine daylighting with earth berms to deflect winter winds and increase energy efficiency. Light baffles and reflectors compensate for the changing angles of the sun to admit controlled natural light through high windows and clerestories.
The larger of the two modular offices, located on a 327 x 370-foot field of a former farm in Mt. Zion, is surrounded by a circular, seven-foot-high earth enclosure that defines a semicircular parking lot and access ramp to drive-in windows, in addition to providing a buffer from a busy highway.

Each facility is designed for possible future expansion. The basic module is 40 feet wide and expands axially in eight-foot increments to meet varying interior space and drive-in teller requirements.

The Pawnee branch is exactly one half the size of the Mt. Zion office and located on a much smaller site adjacent to houses and small scale commercial buildings. It employs a truncated earth mound design that integrates several large existing trees.

Gildorn Savings maintains a policy of trying "to be a good neighbor to the community," and each facility has a public community room that is used after business hours. Each branch has an entrance vestibule with a stairway that leads down to the community room but prevents entry into the banking area. All functions necessary for the community room to operate (toilets, kitchen, and storage space) are separated to allow the two spaces to work independently.

Exposed laminated beams provide a column-free interior, and the buildings' exteriors are wood decking with sandblasted exposed concrete. **Lynn Nesmith**
One of the biggest eyesores in Prentiss, Miss., was a 1927 jail and fenced-in prison yard that shared a site with the 1907 county courthouse facing the town square. When the county decided to provide office space for the sheriff's department and increase detention space for up to 22 prisoners awaiting trial, the decision was made to integrate the existing buildings and the addition into a cohesive complex.

Dean/Dale & Dean Architects of Jackson, Miss., set the new two-story, Jefferson Davis County jail away from the street to lessen its apparent mass and provide a landscaped public area. The neutral stucco walls of the front facade are set back behind a brick screen that recalls the color, textures, and forms of the 1907 courthouse.

The connecting linkage is interrupted by a brick archway that announces the new jail's public entrance and echoes the side doorway of the courthouse. The connector's lower level is the main passageway, and the upper level provides direct, secured prisoner transfer. Design principal Doug Dale, AIA, says the area where it hits the old courthouse was filled with glass to admit light and show how the old and new come together.

An outdoor prisoner's visitor and recreation area was added away from pedestrian traffic along the backside of the complex between the addition and the old jail that was converted to offices for the sheriff's department.

On the lower level, holding cells for juveniles and women and the intake/booking area circle the "nerve center," a two-level guard station vertically connected by a circular stairway, to extend surveillance to the male detention cells and dayroom on the upper level and to encourage cooperation between the two floors.

Cool colors (blues, light greens, and lavenders) were used throughout the interior. Dale said soft colors were chosen throughout to brighten the tight and small spaces and tone down the harshness, dictated by the functions and restrictions of the small facility, and to try to give something to the prisoners. The architects were successful, based on one comment by a local woman during an open house tour of the facility. "This is so nice, too bad it's a jail," she said. L.N.
Child Care Center Scaled for
The Comfort of Its Young Users

Central to the design of the Cathrine McCauley Child Care Center in Ann Arbor, Mich., was the welfare of the future occupants—104 children ranging from infants to kindergartners. The architect's approach was to “look at the building through the children's eyes” and to design a structure that “would not overwhelm them.” As explained by Jim Menghini of Herrmann-Holman-Menghini-Overhiser, of Ann Arbor, “There was a strong concern that the building reflect childlike qualities and be very homelike in feeling.”

To create a domestic esthetic—rather than an institutional one—the 10,000-square-foot facility is divided into eight buildings that are clustered together and connected by an enclosed pedestrian street. (Located on this hallway are a kitchen, director's office, and lobby.) To further heighten this homey feeling each segment has its own character: Window treatment, interior layout, colors are unique for each structure. For example, the infants' room has an eight-foot-high, flat ceiling; in contrast, the kindergarten has a cathedral ceiling. The general playroom is also full height, but this time the attic guts—air-conditioning and heating pipes and ducts, lights and wiring, and wooden structural supports—are left exposed. Each room can be entered from the exterior of the interior hallways, through the color-coded doors. The doors are mostly glass to allow views into rooms, as well as outdoors. The windows are placed lower than usual on the walls, and openings are small so that the scale is more congenial to children than adults. Views out the windows are deliberately varied as much as possible to relieve potential boredom. Menghini describes the design of the redwood-sided facility as “midway between traditional and contemporary.”

Nora Richter Greer

Above right, from a distance the child care center looks like a cluster of single family homes. Above, the center as seen from the multilevel playground. The scale and the design of each room is deliberately different, as seen in the general playroom, far right, and the kindergarten, right.
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**Personal Appraisal of Aalto's Beginnings**

**Alvar Aalto: The Early Years.** Göran Schildt. (Rizzoli, $35.)

Göran Schildt has spent 30 years of Aalto's life in close study. Since Aalto's death in 1976, he has been chairman of the Alvar Aalto Foundation. In two previous books he has rescued Aalto's writing from the barrier imposed by the Finnish language and revealed the richness of his artistic heritage in hundreds of sketches. This, the first of a projected three-volume biography, has its supremacy assured because Schildt has had unrestricted access to a surprisingly large mass of personal and professional papers and because long years as an art critic and historian (as well as the writer of engaging travel books) have superbly equipped him for this task. The distinctive character of this enterprise is thus its combination of biographical and critical elements.

The present volume concludes in 1927, which date Schildt has identified 109 architectural projects covering the entire range of building types. Aalto was then, virtually unknown outside Scandinavia, and had not yet embraced international modernism in his design for the Viipuri Library (1927), the Turun Sanomat newspaper plant (1928), or the Paimio sanatorium (1929)—buildings that defined his distinctive brand of architectural humanism and propelled him onto the international stage.

Here is Schildt's credo: "I do not intend to concern myself with that side of Aalto's life to which his family relations, ve affairs, enmities, bank business, and ting and drinking habits belong. On the other hand, I do consider it meaningful to try to recapture his personal essence, temperament and mannerisms, however little they may have to do with the appearance of his buildings. His personal arm and his ability to make other people listen to him was one of the basic conditions for his entire work. Without magic power he had as a human being he would never have got either the signatures he needed for the freedom from grudgingly accord to architects, skillful collaborators who understand him and know how to carry out his ideas or foreign contacts that put him in the center of international architecture."

With this candid enunciation of his mission as a biographer, Schildt launches his work to make Aalto, the man, the central element of this book. "That role belongs to his work, in all its universal greatness," Schildt asserts. Let me quote him further to explain how this was accomplished: "In the first part of this book I discussed the external framework of Aalto's life, his working arrangements, collaborators, travels, and human contacts in general. In the second I shall take up what to me seems the central themes in Aalto's work and try to set them in more general ideological context. The book closes with a concentrated descriptive list of works..." The success of this strategy lies in the author's ability to bring together the biographical evidence and thematic analysis in a mutual illumination. And it is a notable success, couched in the easiest reading, even chatty, style.

Earlier works on Aalto—particularly Paul David Pearson's Alvar Aalto and the International Style and Malcolm Quantrell's Alvar Aalto: A Critical Study—have given barely 50 pages to what Schildt covers in his entire volume. What is new relates to Aalto's childhood and education; family background; early life in the woods of central Finland; his surprisingly well-developed career as a painter, caricaturist, journalist, humorist, and critic; his relationships to other architects in Finland and Sweden; his practice in Jyväskylä and Turku; and his initial success as a designer of exhibitions and exhibition pavilions. We perceive his deep roots in Finnish national culture, indigenous architecture, the national romantic style strongly related to the international Jugendstil or art nouveau, and the powerful elements of classicism and Palladianism and Mediterranean culture—all of which contributed to Aalto's individual expression.

Schildt has made all this a more fully documented and more significant synthesis than any earlier writer. And he has presented it in more human terms, with pointed anecdotes and sharply targeted facts. Not the least attractive feature of this presentation is the profuse illustration, especially the color plates that offer convincing evidence of Aalto's abilities as a serious painter, portraitist and family photographer, travel sketches, architectural drawings of many earlier projects and competition entries, photographs of student days and activities, and, of course, many early and unpublished projects.

The book, at once more lively and profound, more scholarly and directly perceived than previous studies of Aalto, adds to what has been previously known more than it reinterprets; and it charges previous accounts with new vitality and meaning. Schildt is especially qualified to disentangle the currents of Swedish and Finnish linguistic, ethnic, and cultural factors and their political significance, and to make us aware of their architectural importance—as in his account of Östberg versus Asplund, or the still finally unresolved relationship to Eliel Saarinen. He makes clear the special geographical character of Jyväskylä, deep in the forests of central Finland, the region to which so many of Aalto's major buildings have been related. He provides the essential social, economic, and cultural context, lacking until now, for appraising Aalto's father's work as a surveyor. He makes it believable that Aalto might have become a Jaeger rather than an architect—with the photos to prove it. He even makes something important of Aalto's military career and his activities, or inactivity, in the Finnish Civil War. And for those with a taste for psychobiography, he includes a fascinating evaluation of Aalto by his psychiatrist son-in-law Yrjö Alanen, centered on Aalto's remarkably extroverted personality.

The general effect is to enlarge our understanding of Aalto by another 15 years, scores of new buildings and projects, and to greatly expand the agenda of historical biographical and stylistic issues. This, and the succeeding two volumes (not to mention Schildt's earlier monograph on Aalto's sculpture), will provide the definitive work on Aalto and a monumental continued on page 94.
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example of what the art of biography can contribute to architectural criticism.

The usefulness of this book would have been improved had it included an index, a chronological table, and a table of illustrations. The analytical table of contents and the 30 pages of chronologically arranged notes on the 109 buildings (1912-27) are useful, but more is needed that may be supplied for the entire triple series. One eagerly awaits the following volumes of this magisterial account.

From this book we learn of the relationship between life and creative architecture. The last of the great masters of the modern movement, Aalto was the one who most designed in human terms. He did not reject building technology but used it for human ends. He succeeded where others like Le Corbusier and Gropius, even Wright, did not. At the time of his death, it was widely said that this era closed an era. With the understanding offered by this interpretation, we might better consider—certainly hope—that it marked the opening of a succeeding era. If he were alive today, surely Aalto would be environmentally concerned, applying his anarchism, his Goethean and Dionysian character to the problems of our times, as he was doing as early as 1924.

Frederick Gutheim, Hon. AIA.

Mr. Gutheim is author of Alvar Aalto in the Masters of Modern Architecture series.

Architecture as Art: An Esthetic Analysis. Stanley Abercrombie. (Van Nostrand Reinhold, $25.50.)

Stanley Abercrombie, architect and editor of Interior Design, has written a book that is primarily a thoughtful introduction to architecture for the layperson or the beginning architect but which also can bring new insights to an architect at any level of sophistication. The task of the book itself is the more or less impossible one of identifying the criteria by which we may understand why some buildings are works of art while others are not.

As happens with most such attempts, the process of searching for so large a truth is more interesting than any final formulations the book achieves. Architecture as Art is like a civilized series of conversations held by Abercrombie with himself, or perhaps with an imaginary tutor, as he sits through his slides and memories and asks himself the basic question about art and architecture. The result is a feast of observations, grouped loosely in discursive chapters around such general themes as scale, shape, function, and meaning. The categories have perhaps no great importance, but the observations are always wise and often epigrammatic. Typical is Abercrombie’s description of the exaggerated rustication of the Pitti Palace in Florence, Italy, shadowed in deep chiaroscuro by the Tuscan sun, as “climate made visible.”

Unlike many theories of architecture in this century, this is no tense polemic nor compulsive thrust of insight. It is a quiet, extremely well written book of relatively low voltage, based on much experience and cogitation, that needs to be closely read and savored. So treated, it will yield treasures of wisdom and perception. Robert Campbell

Palladian Studies in America I: Building by the Book. 1. Edited by Mario di Valmarana. (Published for the Center for Palladian Studies in America by the University Press, Charlottesville, Va., $20.)

In 1976-78, an exhibit of models of Palladio’s buildings in Italy toured this country. The interest stimulated resulted in the creation of the Center for Palladian Studies in America. This handsome little book of 114 pages contains papers delivered at the center’s annual conference in 1982, with other books in the series to follow. The present volume contains for papers, the first by Lionello Puppi who gives an account of Palladian influence on European countries and America. Calef Loth’s essay on Palladio in southern Virginia is followed by William B. O’Neal’s discussion of pattern books and William M. S. O’Neal’s essay on Palladianism in Tidewater Virginia.

Books continued on page
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Books from page 94

Drawings and Plans of Frank Lloyd Wright: The Early Period (1893-1909). (Dover, $7.95.) The Early Works of Frank Lloyd Wright. (Dover, $7.50.)

These books, now published by Dover in affordable paperbacks, will surely delight Wrightian scholars who may have had difficulty in consulting the original volumes published by Ernst Wasmuth in Berlin in 1910 and 1911. Drawings and Plans of Frank Lloyd Wright is reproduced from the rare first edition of the Wasmuth portfolio of drawings. Changes in the Dover edition include the omission of the German translation of Wright's introductory essay. The Early Work of Frank Lloyd Wright omits an introductory essay by C. R. Ashbee, which has been replaced by a new one by Grant Carpenter Manson. This book is a photographic album of Wright's work during the Oak Park, Ill., period, and among the 207 photographs are those depicting some of Wright's destroyed work.

Alfred C. Bossom's American Architecture, 1903-1926. Dennis Sharp. (Book Art, 4 All Saints St., London N1 9RL, England, $9.50.)

The pioneering American skyscraper architecture of British architect Alfred Charles Bossom (1881-1965) has been ignored in his homeland due to the fact, it is suggested, that he is known there primarily for his political career as a member of Parliament. Aiming to redress the situation, the exhibition "Building to the Skies" was mounted in London in April 1984, taking its title from a 1934 book by Bossom called Building to the Skies: The Romance of the Skyscraper. This catalog for the exhibition (which will also travel to this country) re-evaluates Bossom's work, describing and depicting his bank structures, office buildings, housing projects, and other work in the U.S.—from New York and New Jersey to Louisiana and Texas.

Born and educated in London, Bossom came to this country in 1903, intending to stay here only a few months while working on the design of workers' housing for the Carnegie Steel Works. He remained here, however, until 1926, leaving Pittsburgh in 1918 to set up what turned out to be a lucrative practice in New York City.

Although skyscraper construction had reached maturity before he came here, he is remembered for his efficient implementation of existing techniques and his advocacy of neoclassicism. In 1926, at the height of his architectural career, he returned to England and never practiced again, devoting his energies to politics.

This catalog includes a memoir by his son Sir Clive Bossom; an account of the skyscrapers by Dennis Sharp and Peter Wylde; and a discussion of his bank designs by Martha B. Caldwell.


First of all, advises architect Jim Morgan, get over your attitude that marketing does not matter for the small design firm. He explains how to analyze your practice and set marketing goals, also giving practical information on the shaping and recording of a marketing plan. Focus your efforts, he admonishes, and try to make contacts, prepare for interviews, follow up, and close the deal.

Morgan discusses the choice of visual materials, the creation of printed materials, and the use of promotional materials to get jobs. His suggestions are aided and abetted by detailed profiles of 16 design firms, underscoring the proven advice that it is applicable to any small firm's marketing needs.

This useful manual also contains checklists, charts, and forms, and there is an appendix on marketing with the microcomputer.

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Letters continued from page 6

article, was Louis Kahn's Kimbell Art Museum in Fort Worth, Tex., and the other
was a series of commercial lamps that utilize a perforated metal shade.

Lee's implementation of this revised design concept utilized cold cathode lighting to achieve a continuous light source as opposed to the intermittent shading generated by butting fluorescent fixtures together. Unfortunately, the cost of the fixture and its cold cathode illumination was too expensive, so Gensler turned to a local neon outdoor advertising firm to do the fixtureing, lamping (argon), and installation along with a full-size mock-up of the vault and fixture for approximately half the cost of the original scheme. William O. Smith
Boston
(Mr. Smith was Gensler & Associates' lead designer for the Republic Bank interiors.)

Roanoke: Michael J. Crosbie's article on Roanoke, Va., (Nov. '84, page 54) was a
true delight. On behalf of the many architects involved, we at Hayes, Seay, Mattern & Mattern congratulate Architecture and extend our thanks to you for exposing our story. One credit that went astray is that of Grady Gregory, AIA, of Gregory & Associates as the architect of record for First Street improvements. He, like many others, was an essential part of the process and did an outstanding job. Timm Jamieson, AIA
Roanoke

DEATHS

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John L. Volk, AIA, Palm Beach, Fla.
Charles Ward Jr., FAIA, Philadelphia
Alfred Westberg, AIA, Seattle
W. F. Wortham Jr., AIA, Houston

Charles Irvin Pitts, AIA: A partner in the architectural firm of Westmoreland
McGarity Pitts in Spartanburg, S.C., Pitts was active in AIA on a national level. A
member of the Institute's codes and standards committee (AIA's largest committee for the past 10 years, Pitts served as vice chairman in 1983 and 1984 and was to serve as chairman this year. He also represented the profession at the National Institute of Building Science and was a member of NIH's division management board. A native of South Carolina, Pitts studied architecture at Clemson University, for which he later designed the renovation of Tillman Hall. He was also involved with the design of many of the buildings at the University of South Carolina at Spartanburg. Pitts died in December at the age of 52.

News continued on next page

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BRIEFS

Preservation Publications. The National Park Service has published a 48-page technical report (#024-005-08/2-1) that addresses problems encountered by architects, engineers, and government officials responsible for the care and maintenance of historic buildings and a 65-page booklet (#024-005-00870-5) that is a glossary of historic masonry deterioration problems and preservation treatments. They are available for $2.25 and $2.50, respectively, from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Amphoefer Grants Awarded. John E. Hancock, assistant professor of architecture at the University of Cincinnati, was awarded a $5,000 grant for investigations in architecture by the Amphoefer Fund for his proposal, "Cultural Resonance: The Fermenting of Architectural Ideas, 1963-1973." Janet Brum was awarded a $2,500 student grant for her proposed study entitled "Architecture and Industry."  


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Credits from page 103


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Note: all applications shown are in Color Quest Maple Blush color.

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Circle 48 on information card
Furnishings

As resources for design and objects of design.

By Nora Richter Greer

Two jazzy offerings from the Italian firm Thema are the Poppi armchair (1) and the Saturno sofa (2), both of which were designed by Gastone Rinaldi. The armchair is exuberant in both color and form. A round steel tubular structure supports brightly colored polyurethane foam cushions—in this case yellow, red, and blue. In this eclectic design, Rinaldi uses a central, rounded headrest flanked on each side by more angular shaped cushions. The armrests seem to have been simply flopped over the steel structure. The design of the Saturno sofa is a play upon the oblong. Both the seat and the backrest are half oblongs of polyurethane foam supported by a steel frame that is chromed or covered with epoxy stove-enameled lacquered colors. (Thema's representative in the U.S. is the Vivere Corporation, c/o Ticcardo Rosa, 1 W. 64th St., New York, N.Y. 10023.)

In sharp contrast are two elegantly handcrafted pieces by Wendy Stayman, a former Wendell Castle Workshop associate now residing in Easthampton, Mass. For the Loggia Mirror (3), Stayman reinterprets the classic arcade in miniature. Her loggia has deeply vaulted arches supported by columns with brass ionic-style capitals. Materials are swiss pear, curly maple, holly, and ebony and brass details. The more traditional Settee (4) is made of cherry, curly maple, ebony, and ebony veneer.

Vibrant color contrast characterized the Campiello chair (5)—red on black, as seen here, or yellow on black. Designed by Jonathan De Pas, Donato D'Urbino, and Paolo Lomazzi for the Italian firm Zanotta, the dominating form is the half cylinder into which is placed a squarish-shaped seat, a black leather back cushion, and the brightly colored, back support cushion made of down. A highback chair is also available. Resembling brightly colored 2x4s, the Skipper pole lamps (6) are available in floor, wall, or ceiling models. Manufactured in Italy, they come in white, black, and red. The tip of the lamp, measuring about one-eighth of the pole's length, contains the light source and can be tilted in several positions.
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The McKeldin Plaza Fountain (1) by Wallace Roberts & Todd of Philadelphia in Baltimore's Inner Harbor district has a custom-designed water handling system by Imperial Bronzelite. The interactive fountain installation has walkways under and over a series of waterfalls and pools. Custom systems are also available with simple sequencing and musical fountains, computer programmed systems, underwater and ground-mounted lighting, and filtration fixtures. (Circle 201 in information card.)

The Ellipse Waterfall spout (2) by Kallista has a curved surface designed to direct the flow of water downward into the bathtub. The residential bath fixture is available in brushed nickel, nickel silver, gold, and a combination of gold and silver. (Circle 202.)

Cast in bronze, brass, or aluminum, and finished in a handrubbed patina, Omni "Modern Classics" doorpulls (3) by Forms + Surfaces are meant to recall traditional architectural details. Some pulls are available with dark green jade inlays. (Circle 203.)  

Products continued on page 114
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Work Station.
Datamation managerial and executive work stations (above) are designed to be used with personal computers and CRTs. The mechanical chase system conceals and protects wires and cables. (Structural Concepts Corporation, Spring Lake, Mich. Circle 234 on information card.)

Access Floor System.
Floor system is made of adjustable steel pedestals for finished heights of four or more inches and mineral/fiber-reinforced composite material floor panels with chamfered edges. The 24-inch-square acoustical panels are nonmetallic and noncombustible. They can accommodate a number of coverings, including stone and ceramic tile, carpet squares, and high-pressure laminates. An optional sheet steel can be bonded to the bottom of the panel to increase the load carrying capacities to 600 pounds per square foot and 1,250 pounds of concentrated load. (H. H. Robertson Co., Pittsburgh. Circle 240 on information card.)

Lighting Fixture.
Tranon custom fabricated modular chandelier is constructed of 1x3-inch troffers suspended from the ceiling. Indirect light radiates from 150-watt Tungsten halogen lamps in the top layer of the troffers. It is available in square or rectangular configurations up to 12 feet in brass, chrome, and white. (Modulightor, Inc., New York City. Circle 235 on information card.)

Wood Flooring.
PermaGrain 75 wood flooring meets U.L. approval as a fire resistant flooring system. The flame retardant material and acrylic are both impregnated throughout the wood. Designed for commercial and institutional installations, it is available in all of the company's standard colorings and configurations, including bleached oak, bleached ash, and solid cherry. (PermaGrain Products, Inc., Media, Pa. Circle 239 on information card.)

Interior Lighting.
The V series of high intensity discharge luminaires, designed for industrial and commercial installations, have interchangeable ballast components for five low-wattage fixtures. All ballast housings are aluminum with a durable electro-coat gray finish. Each optical component includes a precision-designed refractor for low levels of brightness at lower mounting heights. (General Electric Lighting Systems, Hendersonville, N.C. Circle 238 on information card.)

Wall Panels.
Armor Wall paneling, constructed of a rigid vinyl sheet to a solid gypsum wallboard core, is designed for high traffic areas in commercial, industrial, and institutional installations. Panels are decorated and bonded at the factory. Available in four standard colors, panels measure 4x8, 4x9, and 4x10 feet in 5/8-inch and 1/2-inch thicknesses. (Gold Bond Building Products, Charlotte, N.C. Circle 237 on information card.)

Architectural Detailing.
ZROC is a glass reinforced polymer gypsum and cement product for interior or exterior applications, including ceiling column enclosures, wall designs, vaults and light covers. Fire resistant and nonconductive, molded ZROC is designed to stimulate the appearance of textured s
People, including brick, stucco, terra cotta, and sandblasted surfaces, and can be painted, stained, or covered with wall coverings or tiles. The ceiling coffers are available with "molded in" lighting and ventilations systems and adapt to standard and custom grid systems. Custom columns for hydrocal gypsum cement are available at any length or diameter. (Architectural Shapes, Inc., Exton, Pa. Circle 236 on information card.)

Task Lamp. Adjustable 395TL task lamp is designed for attachment to horizontal, vertical, or angled surfaces of drafting tables, desks, and computer stations without losing tension. The built-in handle and on/off switches are located away from the heat source. The fixture uses a 90-watt incandescent bulb and a 22-watt cool white fluorescent tube and has an electrical outlet. It is available with a white finish. (Plan Old Corporation, Irvine, Calif. Circle 133 on information card.)

Vinyl Flooring. Hyde Village Brick solid vinyl tile flooring, 12 inches square, is made of patterns of random set 4x4-inch and 4x8-inch inserts. Available in four colors, tiles are designed for commercial and residential installations. (Kentile Floors, Brooklyn, N.Y. Circle 232 on information card.)

Basement Window. Insulated window unit has an interior and exterior baked enamel frame section constructed of extruded aluminum and a vinyl window insert with a glass fiber screen. Three standard sizes are available with 8-inch insulated glass. (Therma-Snap, Akron, Ohio. Circle 231 on information card.)

Portable Drawing Table. Professional Drawing Kit is a compact, portable drafting table constructed of naturally finished basswood surface board, black steel end cleats, and a "easy-grip" carrying handle. The Armoredge Kit rule is a transparent edge designed to resist cracks and dents. The four collapse resistant legs are secured at a 45-degree angle. (Rayline Co., Sheboygan, Wis. Circle 230 on information card.)

Concealed Lighting Fixture. Symmetrical reflector fixture is designed for concealed mounting above the ceiling line to project the light downward through a continuous opening along the ceiling edge or parallel to the wall. It can be positioned near the edge of a veneer facing upward for indirect lighting. The fluorescent lamp is designed to project a visually uniform light across surfaces. The housing is constructed of extruded aluminum. (Elliptipar, Inc., West Haven, Conn. Circle 229 on information card.)

Wall System. Quick Change divider wall system is comprised of modular wall components for installation over finished floors and under finished ceilings. The preengineered components and U.L. listed prewired electrical posts are designed to reduce installation costs. Panels and doors are available in six colors with optional windows. (O'Brien, Kansas City, Mo. Circle 228 on information card.)

Roofing System. Versigard is a mechanical fastened roofing system designed to withstand winds of more than 100 mph. It is made of a 72-inch-wide, single-ply rubber sheet membrane and may be installed in renovations and new construction. (Goodyear, Akron, Ohio. Circle 227 on information card.)

Wall System. Executive series is a portable wall system made up of 3/4-inch-thick acoustical and fire-retardant panels. Available in a number of standard fabrics and colors in standard sizes as large as 4x8 feet in addition to custom shapes. Optional raceways house electrical, telephone, and computer wires, and nonpowered panels may be spanned with pass-through raceways. (Brewster Corporation, Old Saybrook, Conn. Circle 226 on information card.)

Window Unit. Half-round decorative windows with removable wood grilles are designed to be installed over double-hung windows. The exterior frame is constructed of seamless molded urethane with a density equal to the interior frame and made of Ponderosa pine. Snap-out inner grilles are also made of the same wood. An integral nail fin flashing is designed to provide insulation. Optional interior casing kits are available in colonial and modern designs, and extension jambs can be used to adapt the window to a variety of wall thicknesses. (Webb Manufacturing, Conneaut, Ohio. Circle 225 on information card.)

Skylights. Architectural skylights are available in a number of configurations including vaults, continuous ridges, grids, pyramids, polygons, domes, tandems, as well as automatic heat and smoke vents. The units are constructed of aluminum frames in clear, baked-on color coatings, and medium-to-dark bronze finishes, and glazed with insulated laminated glass, or single or double layers of clear colorless, standard white translucent, or bronze transparent acrylics. (Plasteco, Inc., Houston. Circle 221 on information card.)
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