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**EVENTS**

**Sept. 5-7:** Association for Preservation Technology Annual Conference, San Francisco. Contact: Bruce D. Judd, AIA, APT '85 Conference, Pier 9, The Embarcadero, San Francisco, Calif. 94111.

**Sept. 7:** Taliesin Seminar—Integral Ornament and Furnishings in Organic Architecture. Contact: Richard Carney, Frank Lloyd Wright Memorial Foundation, Taliesin, Spring Green, Wis. 53588.

**Sept. 7-12:** American Public Works Association's International Public Works Congress and Equipment Show, Los Angeles. Contact: APWA, 1313 East 60th St., Chicago, Ill. 60637.

**Sept. 10-12:** Seminar on Basic Adjustable Speed Drives, Milwaukee. Contact: Louis Allis, 427 E. Stewart St., P.O. Box 2020, Milwaukee, Wis. 53201.

**Sept. 10-13:** Workshop on Solar Design and Installation, Cape Canaveral, Fla. Contact: Ken Sheinkopft, Florida Solar Energy Center, 300 State Road 401, Cape Canaveral, Fla. 32920.

**Sept. 11-14:** Women in Construction Annual Convention, New York City. Contact: Betty Kornegay, 327 S. Adams, Fort Worth, Tex. 76104.


**Sept. 15-19:** Tenth Annual Design Management Conference, Boston. Contact: Susan Sandomirsky, Design Management Institute, 621 Huntington Ave., Boston, Mass. 02115.

**Sept. 17-19:** AIA Interiors Committee Meeting, New York City. Contact: Ravi Waldon at Institute headquarters, (202) 626-7429.


**Sept. 18-20:** The Society for Marketing Professional Services Annual Convention, New Orleans. Contact: SMPS, 801 N. Fairfax St., Suite 215, Alexandria, Va. 22314.

**Sept. 18-20:** Second International Symposium on Roofing Technology, Gaithersburg, Md. Contact: Robert Mathey, B348 Building Research, National Bureau of Standards, Gaithersburg, Md. 20899.

**Sept. 23-24:** Seminar on Planning and Programming Functional Environments, Madison, Wis. Contact: Philip M. Bennett, Department of Engineering, University of Wisconsin-Extension, 432 North Lake St., Madison, Wis. 53706.


**Sept. 28-Oct. 6:** Annual Symposium of the Art Deco Society of New York. Contact: Richard Guy Wilson, School of Architecture, University of Virginia, Charlottesville, Va. 22903.

**Sept. 29-Oct. 4:** American Concrete Institute Fall Convention, Chicago. Contact: Convention Manager, ACI, 22400 W. Seven Mile Rd., Detroit, Mich. 48219.

**LETTERS**

"Too Much Marketing?"—a Response: The following was prompted by a letter from Robert W. Dorsey, AIA, published on this page in the April issue.—Ed.

Fibbing is not marketing.

In your letter you described an architect who bluntly lied while attempting to win the commission of your university's $12 million hospital unit. The presentation process—whether or not it is cluttered with too many media tools, as is your view—is a time for the client to get to know the architect. And you did. This particular architect, in his fervor to win your praise, displayed character flaws that caused you to lose trust, the most important component in any healthy working relationship. But this has nothing to do with marketing.

All sorts of flawed, but driven, professional people lie to better their careers; journalists have been known to make up stories that win prizes; even academics are occasionally caught fabricating results or stealing ideas. I believe they are all victims of their own confused American dreams that demand a constant progression of successes.

I work in the often misunderstood and relatively new field of marketing/public relations/communications for architects. I have come to it from a background in journalism, advertising, and public relations. What I have found is a group that by and large believes the public will realize good design when they see it. Needless to say, the architects have come to their own understanding of architectural excellence through years of education and work. Why then should the public or potential clients comprehend the intrinsic merits of a building simply by viewing it? People need to be educated. And architects need someone to help them do the job.

One of the most effective formats, I believe, for architects to market their services is to educate clients and, through dealings with the media, educate the public. The process by which the architect solves problems and creates a viable piece of architecture is a fascinating one. That what the various media displays of all you prospective architects were probably try to demonstrate. They were educating you.

The increasing design awareness of the American public is due in part, I believe, to the great volume of good architectural literature. This educates a public that it turns buys quality design. But it is still up to the architect to communicate his/her story to writers and editors. This is when a professional communications person can assist. In an indirect way, I too feel like an educator and certainly a promoter of a good cause, which is why I enjoy what I do.

I seem to have digressed a bit from my initial reason for responding to your letter—lying is not marketing—but I wanted briefly to note the part architectural marketing is playing to increase the understanding of good design.

In response to your questions, "What ever happened to professionalism? Is it victim of marketing?", I do wish to defend my profession by saying that in no instance would I, or any marketing person I've ever encountered, suggest that a lie sold anything to anybody but disillusionment.

Your question "Whatever happened to professionalism?" is certainly one that should be earnestly pursued.

Judith Chapm
New York Ci

**The Annual, Pei, and Value Architecture**

Let me congratulate you on your publication. The May issue is another beauty.

It's too bad you don't have better things to write about, however. The only thing of beauty in the issue of the proposed honored projects, seems to be Pei's prosal for the Louvre. I would not say I, or any marketing person I've ever encountered, suggest that a lie sold anything to anybody but disillusionmen.

Your question "Whatever happened to professionalism?" is certainly one that should be earnestly pursued.

Judith Chapm
New York Ci

As far as the dilemma of new American architecture, we must fall in the same category as Greece in the days of Pericle As Lewis Mumford commented, the urba design in Athens was a mess and the builings, as part of it, were undistinguished and rather unimportant. It was the people who were created in that environment who were important, according to Mumford. They kept their monuments up o the Acropolis and put a great deal of effort into making them beautiful.

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Proposal
Controversy Brews Over Graves’ Whitney Addition

The Whitney Museum of American Art in New York City has announced a proposed addition by Michael Graves, FAIA, that would more than double the size of Marcel Breuer’s 1966 museum. The addition has set off a controversy that probably will match the furor raised over St. Bartholomew’s Church (story page 12)—or, historically, a scheme proposed 17 years ago by Breuer to build an office tower directly on top of Grand Central Station.

Located on Madison Avenue between 74th and 75th streets, the Whitney is within the Upper East Side Historic District and is under the jurisdiction of the New York City Landmarks Preservation Commission. A public hearing before the landmarks commission had originally been scheduled for June 25 but was delayed when the Whitney withdrew its original proposal.

Jennifer Russell, assistant director of the Whitney, said that it was planning to file an application with the commission on the end of August to get on the September calendar. Russell said, “We decided we didn’t have enough detailed material to have the application as complete as the landmarks wanted it. The ic design is the same.”

The proposed addition and the demolition of the adjoining six-story brownstones also will need approval of the city’s zoning commission and board of estimate. It would require several zoning variances.

The 10-story, $37.5 million addition would be built beside and directly above the original building and on the site of adjacent town houses owned by the Whitney. The scheme proposes a reddish sand mass south of Breuer’s dark gray building. The two sections of approximately equal size would be connected by a stepped, semicircular element that would alter the original cantilevered way. These two wings would serve as a base for a five-story, set-back, colonnaded structure with a low arched window running the width of the building, containing large galleries and a restaurant on the top floor. The expansion would increase exhibition and office space from 85,500 to 217,500 square feet and add a 250-seat theater, an “orientation” gallery, and a library.

The Whitney commissioned Graves in 1981 to design the expansion, which would be his first major building in the city. At a news conference when the scheme was announced, Graves said, “It attempts to be an American building by making an amalgam of the modernity one finds in the Breuer building, as against the more elaborate and figurative tradition in the rest of the street. That’s the kind of amalgam that this country is known for.”

The scheme has received mixed reactions from architects and has met strong opposition from local preservation groups.

Murray Levi, AIA, an associate of the Stein Partnership, has organized an ad hoc committee to save the Whitney. The group is circulating a petition that strongly urges the museum’s board of trustees to abandon the presently proposed design. The petition states, “We do not question the museum’s need for expansion nor the museum’s option to select an architect that it feels represents an important current trend in architecture…. We believe that it is possible to develop a strong and important new building that would, at the same time, respect the existing museum.”

One of the most outspoken critics of the proposed addition is Abraham Geller, FAIA, who said the Breuer building would be “literally crushed…subjugated to an assemblage of many diverse and unrelated blocks.” Geller’s request is that the Breuer building be “given room to breathe and exist.” Hamilton Smith, FAIA, who collaborated with Breuer on the original design and whose firm, Gatje Papachristou Smith, succeeded the Breuer practice, said that he believes the proposed design is very unfair to the present Whitney building. “It destroys its architectural expression,” he said.

James Marston Fitch, Hon. AIA, director of historic preservation for the New York firm Beyer Blinder Belle, said, “The new addition will wrap around and up over the existing block, rather like a sea urchin devouring a clam.” He said he agreed that the expansion of a “tightly bound and self-contained museum like the...continued on page 12
Proposals from page 11
Whitney poses some serious problems for the architect of an addition, but surely a less assertive more discreet design is called for in the manipulation of what has already become a landmarked monument of the New York streetscape.

However, John Burgee, FAIA, who serves on the board for Manhattan's Upper East Side Historic District, thinks the proposed design is appropriate for the Whitney. "After all, when they built their first building they were also breaking new ground," he said.

The design has received varied reactions in the press. Paul Goldberger in the May 22 New York Times called the Graves addition "both daring and sensitive." He said, "Mr. Graves has not done what many architects would do, which is to lie down and play dead beside such a powerful and difficult building... What he has done, instead, is endeavor to incorporate the Breuer building as an element of a large and complex architectural composition, a composition that integrates the stark modernism that the Breuer building represents with the kind of colorful, abstracted classicism that has become the trademark of Mr. Graves."

The response by Michael Sorkin in the Village Voice was very different. Sorkin wrote that the Graves design "isn't simply disrespectful, it's hostile, an assault on virtually everything that makes the Breuer original particular... He wrote, "Graves loaded level after klutzy level of building, now a tier with little setbacks, now a tier with a cyclopean lunette, now a gross pergola, now a rustic cornice. It's a strategy meant to dazzle us out of so much as noticing the buried Breuer, a relentless assault of mass, materials, shapes, and phony style."

Thomas Hoving, editor in chief of Connoisseur, used his regular column "My Eye" as a forum for an open letter to the members of the Whitney's building committee. He wrote, "Graves seems to think that if he treats the Breuer building as an integral part, he can surround it with anything he wants. He's wrong: All in all, his is a somnolent, squat, ponderous structure dipped in déjà vu." He charges the building committee "to go back to the drawing board with vigor. Surprise us; lift us; make us think, reflect, and argue over something that's truly creative—something the architect has proven he can do, if you let him."

When Breuer's Whitney Museum opened in 1966 it was enthusiastically received in both the architectural and general press. Writing for the late Architectural Forum, John Morris Dixon, FAIA, noted a "rich character more like that of a private mansion than of an anonymous public treasure." A New York Times editorial said, "The museum itself may prove to be the most important, if not the most beautiful new work of American art in 1966." Also in the New York Times, John Canaday wrote, "...and the pleasure it gives is increased by a pleasure in being able to congratulate the Whitney not only on the show but on the showplace." While Life magazine wrote, "The most impressive work on display was not any piece in the famous collection but the building that houses it."

In an evaluation of the Breuer building that appeared in this magazine in September 1978, Bernard P. Spring, FAIA, wrote, "Looking back over 12 years, the initial published presentations of the Whitney show, more than anything else, how completely the concept of the marriage of form and function was accepted as the essence of quality in architecture... It was the peak and perhaps the beginning of an end of an era." Lynn Nesmith

Commission Rejects Latest Proposal for St. Bart's

The New York City Landmarks Preservation Commission has rejected a second proposal by St. Bartholomew's Church to demolish its community house and replace it with an office tower designed by Edward Durrell Stone Associates.

The tower design was basically a scaled-down version of the first, so the commission's unanimous vote to deny a "certificate of appropriateness" to St. Bartholomew's was not unexpected.

What may prove more significant is that commission members, for the first time, opposed the idea of razing any part of the landmark. Describing St. Bartholomew's sanctuary, community house, and garden as a "trilogy of elements that relate to one another to form a large whole," Commissioner Anthony M. Tung said none of the elements should be eliminated. Commissioner Adolf A. Placzek expressed reservations about any addition to the landmark. "I doubt that I would find any possibility that anything could be built there."

However, Gene A. Norman, the commission's chairman, did not rule out the possibility of some addition at St. Bartholomew's, but said the church should "insert a building sympathetic to the landmark."

It was four years ago that St. Bartholomew's parishioners voted to replace the church property regardless of landmark status. The first design (at $9.5 million a year) was unacceptable. A New York Times editorial said, "...and the pleasure it gives is increased by a pleasure in being able to congratulate the Whitney not only on the show but on the showplace." While Life magazine wrote, "The most impressive work on display was not any piece in the famous collection but the building that houses it."

In 1878 the Rev. Thomas Bowers, the church's rector, argued that the constitutional separation of church and state allow church officials to build a skyscraper or church property regardless of landmark preservation. However, that issue has yet to be addressed in the courts or the state legislature. Legislation first introduced last year that would exempt religious institutions, including schools and parish house, from local landmark laws has been reintroduced this session and is pending.

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Preservation

Stripping of Greene & Greene House by New Owner Protested

Historic preservation has generally been an uphill battle in this progress-minded nation; civic growth, real-estate inflation, highway construction, and urban renewal have all exerted formidable pressure on historic and architecturally significant buildings. Now, it seems, the spirit of enterprise can be added to that list: Owners of high-pedigree buildings are finding it profitable to sell off doors, stained glass windows, and light fixtures that were heretofore considered integral to the design of the building.

In June, several windows and fixtures from Frank Lloyd Wright's Bradley house in Kankakee, Ill., were auctioned off at Christie's in New York City. But the incident that sent major shock waves rumbling through the architecture and preservation communities was the sudden removal of roughly 50 integrally designed light fixtures from Greene & Greene's Blacker house in Pasadena, Calif., soon after its sale for $1.2 million in May. The buyer was rancher Barton English of Stonewall, Tex., who was advised and represented on the transaction by Michael Carey, an antiques dealer operating in Austin and New York. The fixtures, which may be worth $1 million or more, were taken to Texas, some to be sold in Carey's Austin shop and others to become part of English's and Carey's private collections. English plans to install his share of the fixtures in his Stonewall home, a 1940s dwelling that Carey describes as "hacienda style" and which is now undergoing a major remodeling.

Designed by Charles and Henry Greene, the R.R. Blacker house is the grandest artifact of the architects' most important period, and at least one craftsman-movement specialist considers it to be the Greenses' masterpiece. This 12,000-square-foot, 1907-vintage building is the largest and most elaborately detailed example of the bungalow style that the Greenses developed from Japanese and Swiss precedents, and which became a popular national vernacular when countless builders adapted it to small lots and middle-class budgets.

As might be expected of the region that contains most of Charles and Henry Greene's work, the reaction in Southern California was one of surprise and outrage. Randall Makinson, curator of Greene & Greene's Gamble house, likened the act to slicing up the Mona Lisa and selling off the pieces and termed it "a rape of our national heritage." The

Blacker house's intricate staircase and one of the many favrile glass lanterns.

Southern California chapter of the Society of Architectural Historians sent Carey a letter that said, in part, "yours is a coup of assault, and the marketplace should neither pardon nor reward your actions." USC architecture dean Robert Harris said, "It seems enormously unfortunate that the new owners have even thought of using the house as a kind of quarry." Pasadena Cultural Heritage Commission Chairman Tim Anderson called it "an atrocity." The Pasadena board of city directors (equivalent to a city council) passed an emergency ordinance placing a 90-day moratorium on the removal of interior and exterior fixtures from buildings more than 50 years old. Its intent was to prevent removal of the Blacker house's stained glass windows and front door. But reaction was not confined to California. Newspapers in New York, Washington, D.C., and Dallas reported the story in some depth. J. Jackson Walter, president of the National Trust for Historic Preservation, called it "scavenging of the worst sort ... this desecration of a nationally significant property is inexcusable." Nancy McClelland, a vice-president of Christie's, called the removal of fixtures from architecturally important buildings "devastating to the structure" and termed the stripping of the Blacker house "a tragedy." Nevertheless she added: "But if approached, we would sell the objects. We have not been approached."

Michael Carey views the situation in a similar nonjudgmental manner, calling the purchase of the Blacker house "an investment" and "a business deal." He says there are plans to replace the removed fixtures with new replicas. Carey first learned that the house was on the market at a cocktail party in New York, and proposed the purchase to English, who is a major collector of craftsman period furniture and fixtures.

The Blacker house's previous owner, 68-year-old doll house collector and antiques dealer Margery Hill, had been forced to sell her home of 31 years as the result of a succession of ill-advised business investments made since the death of her husband in 1980. In the past the Cit of Pasadena invited Hill to apply for landmark designation for her house, but she declined. When she decided to sell the house, she had Coldwell Banker, her realtor, consult with Randall Makinson about including a protective easement on the house as part of the conditions of sale, but, according to Makinson, the realtor later talked her out of the arrangement.

Mrs. Hill was said to be shocked by the stripping of the house and puzzled by the community reaction to her role, saying, "People talk about me as if I'd committed some kind of crime. ... We did everything under the sun to save it."

When asked if the public reaction to his project came as a surprise, Carey replied, "Not at all. I am surprised by the hypocrisy of the Pasadena community." He then alleged that Randall Makinson had been involved in several incidents of removing fixtures from Greene & Greene houses himself, at considerable profit. In response, Makinson stated that over the years he had been given seven Greene & Greene fixtures from owners of their buildings and from members of the architects’ family, and in one case acquired a fire screen in trade with another collector, concluding, "I've never n a dime from this.”

Fortunately, no permanent harm has yet been done to the house, and the situation seems reversible. At press time, no of the fixtures has yet been sold. Barton English has met with Pasadena director Rick Cole to discuss the matter and possible methods of resolution, and the owner indicated his willingness to rese the property to a local community org

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Preservation from page 16

Can a major work of art and architecture help itself by helping the community that hosts it?

This was the question at the heart of the International Forum for the Future of Sam Rodia's Towers in Watts held in June at the University of Southern California. The answer, from a wide spectrum of representatives of the design community, the Watts neighborhood, and government officials and politicians, was a resounding yes! "We all seem to be in violent agreement on these linked issues," said Ed Helfeld, administrator of the community redevelopment agency. "That Watts Towers is important to Watts and that concern for the people of Watts is vital to the long-range safety of Rodia's Towers."

The three-day forum brought together 33 panelists from Los Angeles, from other areas of California, from across the U.S., and from abroad. Participants visited the towers and the Watts neighborhood, heard presentations from various groups, and then publicly debated the concerns of those who care both about Watts Towers and about Watts.

Moderated by Michael Pittas, dean of the Otis Parsons School of Design, and Robert Harris, dean of USC school of architecture, the discussions at the forum gave voice to passionate pleas for Rodia's towers and the people who live in their immediate aura.

The first positive result of this unique initiative in combined artistic and community action was an announcement at the forum by Los Angeles Councilwoman Joan Milke Flores, whose 15th District includes Watts, of the introduction of a motion before the city council that recognized Watts Towers as "one of the great historically significant monuments to the human spirit; a cultural enrichment for our entire city." Flores' motion went on to urge that the various city agencies concerned "conduct a comprehensive study to determine future needs of the Watts Towers." In the interim, Flores announced to the forum, she was seeking a four-month funding from the council to finance the city's guardianship of Watts Towers when the seven-year, $1.2 million program of structural repair carried out by the state architect's office was to end July 1.

In response to Councilwoman Flores' action, the forum unanimously supported a final resolution to be sent to the city council strongly endorsing the motion. The forum further resolved that "the newly formed Watts Towers Community Trust should be recognized by the city and county of Los Angeles and the state of California as the body through which the community and the Watts Towers can best achieve their respective goals of revitalization and conservation."

The forum produced some rare insights into the connection between culture and social politics in Los Angeles. The campaign to conserve the Watts Towers, to ensure that this magical monument is never again allowed to fall into "towering indifference," is a rare and possibly unique instance of the use of a major art work to help an underprivileged community and so ensure the work of art's own future.

Rodia's towers have shared the general neglect and disdain of Watts itself, despite several past attempts to save Watts Towers, most notably in 1959, when the newly formed Committee for Simon Rodia's Towers in Watts organized an international protest to prevent an official attempt to demolish the towers. In the late 1970s the committee again went into action to halt a botched attempt at restoration by the city.

Perhaps a reason why past initiatives failed to ensure a permanent salvation for Watts Towers was a lack of deep support rooted in the community.

That weakness was remedied this time out. For months before the forum, a wide cross-section of Watts workers and activists met regularly at the Westminster Neighborhood Center to hammer out a series of recommendations for presentation to the panelists and the public at USC's Davidson Conference Center. Gathering up their faith and hope yet again, community representatives put together a booklet titled Watts Community Recommendations.

"Twenty years after the Watts upheaval of 1965," the introduction begins, "after the uprising which marked a community's unequalled frustration over being left out, feeling powerless and desperately hopeless . . . we see another model springing up in which community people, artists, architects, urban planners, designers and the public and private sectors are coming together in dialogue for the purpose of forging a means to focus on improving the quality of life in this vibrant south-central Los Angeles community through the preservation of the cultural heritage of a unique and special neighborhood."

The Watts community recommendations covered the areas of education, cultural enhancement, and economic and environmental development. "Just as Rodia defied disbelief and skepticism, we believe that we too can build a monument dedicated to the beauty in all around us," the recommendations conclude.

Sam Rodia's towers and the people of Watts share a dynamic tension between a poverty of means and a richness of spirit. As Alice Smith Harris of the Parents of Watts, known as "Sweet Alice," sang out on the forum's final morning: "Sam Rodia moved mountains on account of his powerful faith, and we can do the same, if we have the same faith."

Rodia's ghost haunted the forum, perhaps smiling at all this passionate concern with his extraordinary act of visionary architecture that he named Nuestro Pueblo (Our Town), and then walked away from one day in 1954, never to see it again. He died in 1965. Certainly there was a potent sense pervading the forum that all concerned had to respond to his miraculous creation with a corresponding energy and imagination. "We have to raise our hearts and minds to Sam's level," one panelist urged, "or else we should shut up." This challenge was felt by most of the forum's participants, from urban designers to community activists.

Ken Greenberg, head of the urban design group of the Toronto (Ontario) city planning commission, expressed this sensibility most crisply when he insisted that what must be created was "a center for Watts, not a pompous Watts center on some mistaken suburban shopping mall model. Just as Sam Rodia built his paradigm of Nuestro Pueblo, any future development sparked by this forum must act as a model for our town. We must look for bridges to link the facilities the community has already generated, like the health center, the Watts Station, the new shopping center, and the Westminster Neighborhood Center with the towers into one urban focus for the people of Watts to gather in and enjoy."

Greenberg suggested that a proposed international urban design competition might follow on the forum should be con...
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Preservation from page 20

ducted in two stages. First there should be a competition for an overall town plan for a Watts center developing the linkages between its existing and its future amenities. Second, within the skeleton of this town plan, a series of individual cultural and commercial developments could occur over an extended period to avoid any crushing uniformity of building.

A fear that future development might overwhelm Watts Towers was expressed by many participants. “The towers is a very fragile object,” said Charles Moore, FAIA. “Whatever you build around it must be very low scale to preserve its present drama.” Landscape architect Lawrence Halprin warned of the danger of “bouquetification” of the area around the towers and urged “a need for green space.” Architect Ricardo Legorreta of Mexico City said that his country’s attempts at development during the recent oil boom often ended up “destroying our native culture. We turned our towns into Disneyland.”

“We always talk about the drama of the towers,” said Boston architect David Lee, “but we mustn’t forget to help make the community around it a place to be safe, to walk about in and feel comfortable.” Martin Weil, president of the Los Angeles Conservancy, urged the development of a coherent agenda for the towers. “We need to provide a framework to proceed,” he urged. “For so long people have been afraid to come into Watts. We must organize private sector support, now that various government agencies have indicated their concern.”

Apart from Councilwoman Flores, other elected and appointed officials expressing their support for the conservation of the towers and the revitalization of its neighborhood included Marcine Shaw, assistant to County Supervisor Kenneth Hahn; Alan Sieroty and Fred Croton of the L.A. cultural affairs department; Maureen Kindel, president of the Los Angeles city board of public works; and Anthony Ulm, of the California Department of Parks and Recreation. L.A. City Council President Pat Russell, State Senator William Greene, Assemblywoman Maxine Waters, and U.S. Representative Augustus Hawkins all expressed solidarity with the objectives of the forum. “For the past seven or eight years the local community has had stewardship of Rodia’s towers by default,” said John Outerbridge, director of the Watts Towers Arts Center. “We have watched over it, encouraged the people not to harm it, shown it to thousands of overseas visitors. People come from all over the world to see Watts Towers, representing such diverse cultures as Russian scientists and Australian aborigines. Isn’t it time Los Angeles honored its most famous work of art and best-known cultural ambassador?”

“We shouldn’t naively expect officials to take care of the towers, no matter what they promise,” warned Jeanne Morgan, a member and past chairman of the Committee for Simon Rodia’s Towers in Watts. “Out of long and bitter experience I know that eternal vigilance is needed. Everyone here is a parent of Rodia’s towers, and as such we must nurture and watch over it as we do our children.”

Ed Helfeld, administrator of the community redevelopment agency, reinforced this warning about “naivete.” “There is no indication that private money will ever be invested in commercial ventures in Watts,” he said. “The new shopping center is 100 percent subsidized by public funds. How will you convince the private sector that business in Watts is an economic proposition?”

“We mustn’t be naively cynical either,” countered Clyde Oden, director of the Watts Health Foundation. “My experience has shown that once you’re successful people like to be around you. Watts has shown over and over that self-help is possible and can create the groundwork for valid private investment. The health foundation, which was subsidized to start with, is now 85 percent self-sufficient. As Swee Alice says, ‘We must have faith and hard work. Faith needs friends.’”

“Confidence is very high here,” said moderator Robert Harris, summing up the heady level of energy and enthusiasm generated by the forum. “Never before has there been a diverse and inspired coalition of people and interests gathered together in one hall to express their feeling about Sam Rodia’s towers and the revitalization of its host community.

“It’s clear that all concerned agree that we need to conserve the towers and its visual and social context in the Watts neighborhood while helping the community to help itself. It proves once again my deep-felt belief that the more locally rooted and immediate a design issue, the more universal its significance. What we achieve here, and shall achieve in the future, could serve as a model for such cultural-social action anywhere in the nation. Long Live Sam Rodia and all who care for him!”

Mr. Whiteson, architecture critic for the Los Angeles Herald, was a participant in the Watts forum.

Government

AIA Opposes Parts of Tax Plan Proposed by Reagan

AIA is opposing provisions of the President’s tax program that would eliminate historic preservation tax credits and reduce real estate investment incentives. Institute President Bruce Patty, FAIA, said, “Many, if not most, preservation projects wouldn’t exist without them. We will fight to keep them.”

The President’s tax reform plan, as well as the Treasury Department proposal, would totally eliminate the preservation tax credits. Since 1976 when the program was enacted, some $6.94 billion of rehabilitation work has been undertaken on 10,724 projects (as of the end of ’84), according to the Interior Department. Of these projects, 64 percent of the owners have indicated that they would not have undertaken the rehabilitation work if the federal tax benefits were not available.

The Interior Department estimates that in 1985 $2.4 billion will be spent on 4,000 projects. The program allows a 25 percent credit of the cost of a certified rehabilitation of a certified historic structure, a 20 percent credit for buildings at least 40 years old, and a 15 percent credit for buildings at least 30 years old.

National Trust President J. Jackson Walter has called the preservation tax credits the “most effective federal urban program of the last 20 years. It is a key element of national preservation policy that should not be discarded. We have preserved history and fine craftsmanship while creating new investments, jobs, and local and state tax revenues in declining urban areas. I do not believe Congress will desecrate these benefits. Nonetheless, we face a tough battle.”

Concerning other real estate tax incentives, Reagan’s proposal “threatens almost every tax-favored investment vehicle for real estate other than the mortgage interest deduction for single-family, owner-occupied houses,” stated AIA’s government affairs department. The changes will cause “an immediate reduction in new construction levels and a substantial devaluation of most existing investment property,” the department’s analysis contended.

If adopted, Reagan’s plan would:

• Repeal investment tax credits and the energy tax credits.

• Extend the at-risk limitations to real estate.

• Treat the gain from the sale of property, “otherwise be retained, this extension could greatly curtail the syndication of real estate.

• Treat the gain from the sale of property...continued on page...
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The government, from page 22

Extend depreciation periods for equipment and buildings and index depreciation benefits for inflation. Eighteen-year-old property would be depreciated over 3 years under the proposed capital cost recovery allowance.

Repeal the tax exemption for private mortgage subsidy, industrial development, and tax-exempt organization bonds.

Extend depreciation periods for equipment in government and in Greensboro, N.C., and Devils Lake, N.D., volunteers wore miniaturized monitoring devices throughout the day to measure their exposure to 11 chemicals—chloroform, trichloroethylene, benzene, carbon tetrachloride, perchloroethylene, meta-para-dichlorobenzene, meta-para-xylene, styrene, ethylenebenzene, orthoxylene, and 1,1,1-trichloroethane. At the end of each day, the volunteers took a breath test to determine the quantities of the chemicals in the blood and filled out a questionnaire on their day's activities.

For all 11 chemicals, outdoor levels were "relatively insignificant" compared to the indoor air levels. In some cases indoor exposures were 70 times greater, even for people living close to the chemical factories. Both Elizabeth and Bayonne are located near petrochemical plants and refineries that discharge the 11 chemicals into the air. And people in Greensboro (where there is light industry but no chemical plants) and Devils Lake (an agricultural area) recorded no less exposure to the chemicals than the people living near the plants and refineries.

The major sources of the 11 toxic substances in the indoor environment are thought to be building materials, such as adhesives, fixers, resins, and insulation, and consumer products, such as paints, cleansers, propellants, plastics, and cosmetics.

Overall, the officials described the results of the study as surprising, even startling and said, "Perhaps the most significant finding has been the discovery that the indoor levels of all the target chemicals are much greater than outdoor levels."

The study concluded that there is no evidence of imminent threats to health. However, scientists in the government as well as the private sector suggested that these results could alter the focus of EPA's efforts to combat air pollution, which until now has mainly concentrated on outdoor pollution. And it is likely that future studies using similar methods will examine many of the known indoor air pollutants, such as radon or formaldehyde.

Planning

Sweeping Downtown Plan Approved in San Francisco

Last month the San Francisco board of supervisors passed the city's long-debated downtown plan by a vote of six to five. Among the arenas of debate was a two-day joint meeting of AIA's design and urban design committees just preceding the San Francisco convention.

A presentation by senior planner Richard Hedman, together with comments by City Planning Commission Chairman Toby Rosenblat, Planning Director Dean Macris, and bay area architect Jeffrey Heller, made it obvious that this is the newest and most sweeping masterplan ever proposed for a major American downtown.

It is basically an attempt to control the explosive growth of office towers in the downtown. A 20-year boom in office space has resulted in what many San Franciscans and others regard as an outrageous shoring of the scale and visual character of one of the world's loveliest cities. The plan deals with overgrowth in two ways. A "growth cap" reduces the number and size of allowable new buildings, and a set ofesthetic guidelines govern their shape and expression.

Most controversial of all the plan's ideas is the growth cap. This plan will not only cut height and bulk but will limit the total amount of all new office space allowed to be built in the downtown to a maximum of 950,000 square feet per year — the size of a single office tower. An exception is made for buildings smaller than 50,000 square feet, to encourage growth at a finer grain than has been customary.

The esthetic controls, although less hotly debated, are more revolutionary. They define an appropriate character for San Francisco architecture and establish rules to ensure that new buildings will conform. For instance, the plan speaks of San Francisco as "a white city spread over the hills," concluding that "buildings should be light in color." It calls for a "generous use of decorative embellishment," then cannily encourages such embellishments by allowing them to protrude outside the building's legal zoning envelope, so they won't cut into the net rentable space.

Going further, the plan deplores flat roofs, blank walls, and "boxlike" buildings, announcing that "as buildings increase in height, they should be sculptured or shaped to appear increasingly slender or delicate."

The intention, says the plan, "is to return to the complex visual imagery of the surrounding hillsides and to the complex architectural qualities of older San Francisco buildings."

Besides the esthetic controls and the growth cap, the plan deals with just about everything else. It requires design review of all new projects. It mandates the preservation of 251 outstanding older buildings and provides incentives for saving 183 other...
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For many of the experts, the symposium was a chance for them to find out what has happened to perhaps the most chronicled American new town of the 20th century. Reston was last generally in the news in the late 1960s when Simon, having exhausted his credit before his audacious (and expensive) experiment could turn the financial corner, was ousted by his chief lender, Gulf Oil, and Reston receded from the headlines with a reputation as a well-intentioned failure.

But the symposium turned out to be a good place to reconsider and perhaps overturn that verdict. For example, while Simon had predicted that 30 percent of the residents would work there, the actual number, 20 years later, is 40 percent. For years, industry resolutely avoided Reston, leaving most of the 1,000-acre business center a preserve of scrub pine. But today almost every acre is spoken for—and loudly, at $7 to $10 a square foot.

While Simon couldn't hang on as developer, his master plan turned out to have more staying power. Faced with what it saw as market realities, Gulf did scale down the densities of the "urban sinews" of high- and midrise apartments, but the oil company did hang to the outline of the Simon plan, and so has its successor, Mobil.

Symposium participants generally praised commitment to the master plan that has created a new town that mixes generous expanses of greenery and all kinds of recreational amenities with jobs and other urban elements. For example, continued on page 30
How to make a dramatic exit.

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Planning from page 27

it is common to see medical personnel from the Kaisar Permanente Health Plan Clinic eating lunch alfresco at the edge of Lake Anne while serious fishermen angle for small-mouth bass.

But participants did not paint a picture of Reston as Eden. One of Simon's original seven goals was diversity. There were some bold steps in that direction, and today Reston has a black population of 9.9 percent, compared to 5.9 percent for surrounding (and more typically suburban) Fairfax County. But symposium speaker Sylvia Fava, a sociologist at Brooklyn College and City University of New York, had some disturbing findings to report: "... federal subsidies for apartment construction have been discontinued ... but participants agreed that diversity was one of the goals needed shoring up. "It is the most vulnerable [goal]," said Patrick F. Kane, a planner and citizen activist who has lived in Reston almost all of his adult life. "The majority of people in the town don't know of any goals. We've got to try to get a broader commitment."

Kane's concern was not misplaced. Only two days before, Dan McGuire, one of the seven resident directors on the local homeowners' association, issued a statement calling for all public housing, except that for the elderly, to be "relocated" outside the town. All the other directors of the association quickly issued a separate statement disassociating themselves from McGuire's proposal and affirming their commitment to diversity in housing. But in the letters columns of the two local papers, there was some solid support for McGuire.

Twenty years ago, when Reston's pioneer (and largely liberal) residents were dedicated believers in diversity, there would have been a different reaction. But today Reston, largely because of its success, numbers among its residents many who know nothing of the seven goals—and if they did, might object to diversity as one of them. However, the $16,000-a-year employees who occupy many of the desks in the new high-tech industries offices might think otherwise.

One of the salient questions at the symposium was raised by Anthony Downs, a planner and citizen activist who has lived in Reston almost all of his adult life. "The majority of people in the town don't know of any goals. We've got to try to get a broader commitment."

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One of the salient questions at the symposium was raised by Anthony Downs, senior fellow at the Brookings Institution in Washington: "Will developers and investors have sufficient economic incentives to start more such [planned] communities?" His answer was an emphatic "no"—"at least under the kinds of economic and other conditions most likely to prevail in our economy." By which he meant the public disinclination to provide the kind of subsidies that could be large-scale developments through their cash-poor early years. "In the face of [financial] risks," Downs said, "developers will opt for smaller-scale activity. Hence nearly all future developments will be too small to enjoy the main benefits of comprehensive planning. Meanwhile, advise the residents of the few existing large-scale planned communities to enjoy their privileged position as much as they can." Tom Grubisich

Mr. Grubisich is editor of The Connectic, a weekly newspaper published in Reston and author of the recently published book Reston: The First Twenty Years (Resto Publishing Co./Prentice-Hall).

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Planer's guide to commercial windows from page 27.

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"A City" as a Walk-in Cartoon

...look like gnomes with an edificeplex, or gargoyles wagging their build­i. There are 13 in all, ranging from a ple to 15 feet in height, and collec­ly they are known as "A City," an ironmental sculpture by artist James Grashow. The inhabitants of Grashow's city are ixed lot. Some have fiendish grins, holds his domed head in despair, ther trucks along with smoke rising from his flue, and a third, with a ski jump awning, looks a bit like Richard Nixon. One suspects that this is what really hap­pens at three in the morning, with no one around, when the urban behemoths crack their anonymous facades to burlesque the antics of their daylight inhabitants.

Grashow, a Brooklyn, N.Y., native who studied painting and graphics at Pratt Institute and has been doing woodcuts and sculpture for 20 years, initially conjured up these cardboard, fabric, wood putty, paint, and papier mâché creatures for com­pany in his large studio. "I built a giant studio, 30x40 feet, and I have a fear of open spaces, so the first thing I did was a giant piece that went all the way up to the ceiling," says Grashow. The dozen "buildings" that followed essentially played off the first one with its spired roof, the artist explains, "growing underneath their peaks." Michael J. Crosbie
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Response to the profiles of five architecture schools that we did a year ago was so strong that we present another five in this issue. In fact, the profiles are likely to become a permanent feature of the magazine (and perhaps someday a book). Two each year have been written by, and the others done under the eye of, Senior Editor Michael J. Crosbie. It could be said that he invented the form.

On another subject, it is not our custom to evaluate a design on the basis of model photographs. So we will not comment on the esthetics of Michael Graves' proposed addition to the Whitney Museum in Manhattan (page 11). What does require comment is the fact that the addition would be quite literally overwhelming to both the Marcel Breuer museum and the surrounding neighborhood.

The Whitney drew some criticism when built for its size and aggressive form in relation to its surroundings. The impact of the addition on this sensitive context would be a multiple of the original's. The addition, in fact, would treat the original as a minor incident.

Finally, we would like to pay respects to the late Walter Wagner. He was a friend for more than 20 years, a very good magazine man, and one of architecture's genuine statesmen. D.C.
“So, what are your impressions of the architecture school here at Berkeley, in five words or less,” asked Sam Davis, FAIA, a professor in the department of architecture at the University of California at Berkeley’s college of environmental design. “It’s diverse and ever-changing,” I think I said.

At first it might sound trite to describe an architecture program of such stature as Berkeley’s as simply diverse. It’s the least one would expect from any school mindful of the current climate of so-called “pluralism” in architecture. But Berkeley’s diversity is not something newly found. Maintaining an environment that allows a healthy crop of many points of view to flourish, from which the students can glean an impression of an incredibly rich and varied discipline, has been a Berkeley tradition for the past 26 years. By cultivating the study of architecture in its broadest parameters, Berkeley in turn reveals to its students, and perpetuates through its graduates, the possibilities for creativity within architecture, not just as designers, but also as architectural researchers, administrators, consultants, teachers, builders, developers, and community advocates. The diversity of Berkeley’s program is reflected in its curriculum, its student body, its faculty, and its history.

First, a little history. The college of environmental design (CED) was founded in 1959 under the guidance of William Wilson Wurster, the legendary practitioner of the Bay regional style, who was appointed as its first dean. Actually, Wurster had been dean of the university’s school of architecture for nearly a decade before that. The school had gone through various bureaucratic metamorphoses. Architectural instruction at Berkeley began under Bernard Maybeck in 1894 and was later incorporated into the atelier of John Galen Howard in the early 1900s. The departments of landscape architecture and city and regional planning joined architecture as equal partners under the CED, a pedagogical application by Wurster and his wife, Catherine Bauer Wurster, of the guiding principles of the Telesis Group. According to architectural historian Sally Woodbridge, who has written about the group and who teaches at Berkeley, Telesis was founded in 1939 by a number of San Francisco architects, planners, landscape architects, artists, lawyers, and civic leaders who believed in a “comprehensive and planned approach to environmental development, the application of social criteria to solve physical problems, and the team efforts of all professions that have a bearing on the total environment,” as Woodbridge quotes Francis Violich, who with other Telesis members later taught at the CED.

While the Wursters were never members of Telesis, they were intrigued by its concept of generating solutions to environmental design problems out of the give and take of a number of disciplines. A school so rich in vision would be cultivated by a collection of diverse faculty. “Wurster used to say that he was a firm believer in organized chaos,” says Joseph Esherick, FAIA, who taught at the CED from its beginning, was chair of the architecture department from 1977 to 1981, and who retired from the faculty this year. “Bill’s idea was to have a school where there wouldn’t be agreement,” Esherick adds, not even, it appears, about the building that bears the name of Wurster and his wife, designed by a team that included Esherick, Vernon DeMars, FAIA, Donald L. Hardison, FAIA, and Donald Olsen, FAIA.

To house his academic warriors all under one roof, Wurster said that he wanted a building that looked “like a ruin that no regent would like . . . unfinished, uncouth, and brilliantly strong.” Like its faculty, which Wurster described as comprised of “strong people, each with a different slant,” he thought that “. . . the school should present a rough place with many cracks in it.” Wurster hall, a massive concrete pile with its guts exposed, is all of that. In describing the university’s architecture, the CED students have a saying that “there’s good, bad, worse, and Wurster.” The building is hard to ignore (even the CED’s student newspaper is called Concrete), but for all its bad upkeep the building appears to have been accepted for the most part by the students, as evidenced in a head-height band of glorious graffiti that winds its way through Wurster’s stair towers. One student told me that she thought the graffiti were troubling symptoms to Esherick of the students’ rejection of the building, but they seem more of a way that the students have made Wurster hall their own, in the fine old Berkeley tradition of writing on the walls.

The tenor of the city of Berkeley and its university that was prevalent 15 to 20 years ago has changed quite a bit on the surface. While the ghostly remnants of student protests can still be found, as in the faint words “Stop the War” yet visible across the front of Wurster hall, Berkeley had a stronghold of support for Ronald Reagan in the last election. But there is matching student concern for such issues as economic sanctions against South Africa, and on the 20th anniversary of the Berkeley Free Speech Movement there were campus commemorations.

Describing the allure of Berkeley, CED undergraduate Ray Lifchez says that not only academicians gravitate there, “but people who are seeking a new life at middle age, or professionals who are changing their ideas and coming here to get a grip on new ones. The Bay Area is a kind of sanctuary and the students pick up on that and experience it. They begin to see all kinds of ways to be an adult, to be creative and effective in the world and arts.”

The architecture department offers an undergraduate program leading to a nonprofessional degree and a graduate program resulting in a first professional degree. Because it is a public institution, there is a varied student body representing many cultural and economic backgrounds. At least half the students are women, and there is active recruitment of minorities. “We have a strong commitment to affirmative action,” explains Richard C. Peters, FAIA, who teaches there.

The curriculum itself accounts for another dimension of diversity, and might be considered as both Berkeley’s major asset and liability. In the architecture department alone there are something like 75 courses to choose from at the undergraduate and graduate levels, ranging from studio courses to cultural factors in design, practice, design theory and method, mechanical equipment, structures, building construction, history, visual study and special studies.

As undergraduates, students receive a liberal arts training with a major in architecture beginning in the third year. They can also do a double major or a minor in landscape architecture.
Across page, the towering presence of Wurster hall, home of Berkeley's college of environmental design. Above and left, project by Michael J. Bell for renovation of an industrial building in New York City's SoHo into housing and retail space, with Mary C. Comerio and Rosaria Piomelli as critics.
ning, or in other disciplines at the university such as Eng-
lish, literature, or anthropology. Richard Bender, dean of the
College of Environmental Design, sees the latter alternative as a way for the students to go beyond the "level of 
Time magazine conversation about anything and get deeper into a field, and learn how it deals with
innovation and depth." It is also possible, with special permission and guidance, to design your own major. While some courses have prerequisites, there is no order in which they need to be
filled. Few of the courses relate to each other or to the stu-
dents' main field of interest, and there is no sequence for taking them. As you might expect, making up one's mind about what to take and when to take it can occupy a lot of time and energy.

"The real problem is getting the students to recognize all their options," says Lifchez, adding that students can be myopic in their curriculum choices. Advice from the faculty helps, as does a corps of "peer advisers" who try to match what the students want out of their education (or help them to define it) with the right way to get it. "The curriculum is so unstructured that you'll have to learn your way around fast," a graduate student told me. "Getting that knowledge is key to getting a good 
education." For those who have little insight into exactly what it is that they want, the curriculum can be a disaster. "The students who well here are mostly self-starters," explains Donn Logan, FAIA, Berkeley professor and a principal in the ELS Design Group, local firm that hires a fair number of Berkeley graduates. "It's easy for someone to be waiting to be told what to do and just wander around aimlessly," says Logan. "On the other hand, you know what you want to do, no one's going to stop you."

Somehow, it all works. None of the students I spoke with would trade this "cafeteria style" curriculum any other way. But it takes concerted effort on the faculty's part, as Bender observes. "I say feel cheated in a cafeteria when you get down to the diner and find that's where the real good choices are. We need to lay out as clearly as possible what's out there as soon as we can and help people to make intelligent choices."

A curriculum as diverse as Berkeley's is especially effective as a way of challenging returning design professionals who want to pursue an interrupted career in the field, while others come from all over the world to study with faculty such as Christopher Alexander, Donlyn Lyndon, FAIA, Esherick, Sim Van der Ryn, or Spiro Kostof. A third group is comprised of people who have decided to explore architecture as a new career. Known as the "200 level" students, they are highly regarded by the faculty and other students for the interdisciplinary perspectives that they add to the college as a whole.

The 200 folks are fun," says Logan, who has employed several of them. "They're older, a lot of them are older than the students, and they're the guardians of keeping as broad a view as possible, by virtue of their own diverse backgrounds." There are students from fields such as biochemistry, medicine, music, writing construction, art, philosophy, physics, law, mathematics, linguistics, history. One such student said that she applied to Berkeley because as far as she knew it was the only architecture school that sought out people with different careers and interests such students to contribute to the interdisciplinary dia-

The 200 folks are fun," says Logan, who has employed sev-

"You bounce ideas off of the 200 people and get
tross page, axonometric and plans of Michael J. Bell's SoHo
ovation with two theaters and restaurant on lower level, book-
re and cafe on first floor (axonometric), and loft housing on
rs two to six. Right, 'Two Sea Ranch Houses' by Melissa 
ris, with Joseph Esherick as critic. House above is close to
shore and follows its curve; house below is sited close to
tway and forms a wall against the road. Both were short
ich problems.
comments you'd never expect. Architects can really get tunnel vision if they don't experience other things. Architecture is about more than just four walls. It's about the life that makes it up, so when you have a musician or an artist in studio, these people have interesting insights."

Another component of Berkeley's diversity lies in its faculty. Because it is large and includes people who are well versed in related disciplines (such as Clare Cooper Marcus in sociology), there is no reigning architectural paradigm at Berkeley. The students report a somewhat uneasy balance between the faculty who have a more social orientation toward architecture (a Berkeley tradition) and those who are more concerned with formal issues. "They all respect each other, but they don't necessarily approve of each other," explained one student. "You have so many conflicting, converging viewpoints here, and a mixing up of what's right and what's wrong," another student pointed out, "that it necessitates the development of a questioning mind. No matter what you end up latching onto, you always have doubts about it. The emphasis here is on learning how to sort out disparate, conflicting goals and value systems."

Again, this diversity has its drawbacks. "It can be somewhat schizophrenic trying to relate to professors who have completely different viewpoints," one student observed. "Sometimes there is a lack of continuity from one semester to another, and from one studio to the next." Jean-Pierre Protzen, architecture department chair, says that one way to mediate this problem is by getting the faculty to agree on a set of issues that should be covered in various studios. "There is still enough diversity in the way you want to approach those issues," Protzen says, "but we can spell out what certain studios will address certain issues, and that the next studio can build on knowing that these things have been covered."

The awareness among faculty members of what their peers are doing within the studio and the classroom is weak. While there is certainly a diversity of viewpoints, there is not much debate between them. "The students are the honeybees in this system," says Bender, who admits that there are too few exchanges among colleagues. "Many times I find that a teacher will quiz me about what somebody else is doing in studio," says one student about her role as a honeybee. "You'll take what you like from one faculty member and bring it to the next class where there's another viewpoint and you can contrast the differences there."

Next semester, a forum for the exchange of ideas is being planned. "Each week a faculty member from one of the three departments will give a half-hour talk on a different topic, and then another faculty member will present a response," says Sa Davis, who with Don Lyndon is coordinating the forum. They will be a range of topics, such as ways of formulating design problems and ways of imagining design solutions, using either a formally based approach or a socially based approach. They will also be discussion on how one assesses the results of the design solutions. The last session will explore the issue of whether architectural education should be formally or socially based. Sounds like the perfect format for Berkeley. Davis says the forum will also allow a number of issues to be considered that may not get sufficient treatment in individual studios (a weakness Protzen pinpointed), and students will become aware of a large number of viewpoints, which will help them in making course selections.
We and right, a cultural center and health club as an 'urban monument in the new automotive city' by Patrick Winters, with Parid Peters, Sam Davis, and Stanley Saitowitz as critics. The design completes the unfinished 14th century duomo, with components as 'fragments of the city.'
Above, 'Performance Theater in Industrial District' by Joshua Cohn, with Jean-Paul Bourdier as critic. The project site is in West Berkeley, between two new two-story condominiums.

The students themselves have also taken an initiative to expand an already rich collection of viewpoints by inviting architects from outside the Bay Area to spend a weekend in an urban design charrette. One student explained that, because Berkeley is geographically isolated from other architecture schools (the closest is 240 miles away in San Luis Obispo—a distance within which there are a dozen schools on the East Coast), "there should be some other source of fresh and immediate ideas." Among visitors in the past three years has been Edward Larrabee Barnes, FAIA, of New York City; Harry Weese, FAIA, of Chicago; Lawrence W. Speck, AIA, of Austin, Tex.; and Robert J. Frasca, FAIA, of Portland, Ore.

The ultimate goal of Berkeley's embrace of diversity is to allow students to design and help create, in effect, their own future as architects. With a wealth of architectural research efforts at Berkeley such as the Center for Environmental Research, facilities such as a wind tunnel, sky simulator, and an environmental simulator model of San Francisco, and the college's Ph.D. program, students are exposed to situations in which architects can "practice" in unconventional ways.

Another example is Berkeley's Community Design Center program, with three offices throughout Berkeley and Oakland, in which neighborhood groups and individuals can have access to the design and planning services. Graduate students can work at the centers for studio credit or part-time employment. "A large number of students take it because it's practice experience. They work with a real client," and with small projects can see their efforts produce built results, says Mary C. Comeric a Berkeley assistant professor who works and teaches in the program. Between 1979 (when the program started) and 1982, 110 projects were completed with a construction value of $5.3 million.

Only a fraction of Berkeley's graduates, about half, Bender reckons, pursues what can be considered as a conventional architectural career. The others, he says, with considerable pride, are expanding the definition of "architect" by working as energy consultants, furniture and product designers, builders, developers, government administrators, teachers. "I think the profession tends to take too narrow a view of its own field," says Bender, "and if you spend a little time with principals in big firms, you find that they're involved in marketing, looking at spreadsheets, doing a variety of things." Part of Berkeley's contribution to the profession, Bender believes (and he has Wurster intention to support him), "is to develop those career alternatives so that people can see them. And as I look at the future of the profession, it has lots of different futures."
Left and below, mixed use project for a corner in Berkeley by James Gor­
ing, with Sam Davis as critic. Project’s first phase was the design of an L­
shaped commercial building on corner, intended as a catalyst for develop­
ment of the block with housing and retail space.
A Creature of Its Storied City

School of architecture, University of Illinois, Chicago. By John Pastier

If contextualism, that inescapable buzz word of recent years, can apply to professional education as well as to buildings and urban design, then the University of Illinois at Chicago's school of architecture is a pre-eminently contextual institution. To understand it, one must consider Chicago in many dimensions: as a hardy architectural culture, as an archetypical older American city in both the physical and the social sense, and as a uniquely self-sufficient place. The school's strengths and limitations mirror the city's; like so much of Chicago architecture, UIC makes an art of frugality and pragmatism.

Perhaps some of this is self-evident. All architecture schools seem creatures of their settings, since the learning of architecture is so closely linked to example and experience. Small town institutions appear fated to either provincialism or at best a somewhat monastic excellence. Urban schools alone have the potential to expose their students to the full range of issues inherent in a comprehensive definition of the profession.

UIC, whose name was changed from the University of Illinois at Chicago Circle in 1982, is able to offer its students physical and economic accessibility, direct contact with exemplary buildings and with the workings of the profession, and exposure to the particular form of energy and practical thinking that has given Chicago architecture its strength and uniqueness. It does so in different ways, depending on the program, for there is a strong distinction between its undergraduate and graduate divisions.

This is no ivory tower, but rather a place where most of the faculty practices architecture actively. A healthy proportion of Chicago's best and best known designers teaches there either permanently or in an adjunct role. (In a recent five-year period two-thirds of the Chicago AIA design awards were won by UIC faculty or alumni.) Most students work their way through school, usually in local architectural offices, and often interrupt their studies for a quarter or a year in order to get caught up financially.

Combining work and school is especially prevalent in the five-year undergraduate program. The school's emphasis on technical courses gives undergraduates job skills that are then reinforced through employment in local offices. Nearly all of those students commute from Chicago or its suburbs (the campus has no housing facilities and adjoins an expressway and a rapid transit line). Many of them come from the city's large working class and often represent the first generation of a family to go to college. Here is an institution after Horatio Alger's heart, and Mike Royko's as well. This populist approach is certainly not glamorous educational mission in a society that seems to revolve around preppies and yuppies, but it is exactly this circumstance of being out of fashion that makes UIC's role as a public institution more important than ever. Its strong pragmatic emphasis on structure and building technology mirrors a characteristic and longstanding Chicago concern with construction and material reality, and that too runs against today's postmodern tide of fantasy, narrative, and symbolism.

The seven-year-old graduate program, particularly the one-year option for advanced students with previous professional degrees, has an orientation more akin to the country's better established architectural schools. Admission policies are more selective, students come from a far wider geographical area,
the teaching emphasis is more theoretical, and the design work shows a greater awareness of today's dominant historicist and neorationalist movements. A thriving visiting critics program leavens the dominant Chicago perspective with ideas and personalities from the great world outside. Threshold, the school's fledgling journal, is an interesting and respectable effort that gives the institution (and in particular the graduate program) the beginnings of an intellectual presence.

Two of UIC's professors, Stanley Tigerman, FAIA, and Thomas Beeby, AIA, (who is also the school's director) have attained considerable prominence. Both are recent winners of national AIA design awards and were two of the three finalist candidates for the position of dean of architecture at Yale, with Beeby being selected for the job. Although it is a relatively young school, hampered by a notoriously unsuitable main building, lacking an endowment and not especially well funded, UIC has achieved considerable momentum in recent years. Judith McCandless, AIA, a faculty member during the Chicago Circle days who now lives in Kentucky, believes that "it's been a strong school for quite a while, but the world is just beginning to find that out."

This institution began in the early postwar years, when the University of Illinois established a Chicago branch on the Navy Pier near downtown and included a modest two-year architecture program among its offerings. In 1965 the architecture program was greatly expanded when it moved to the new Chicago Circle campus. (It has continued to grow, and now has over 600 full- and part-time students.) The genesis of this complex, designed by Walter Netsch, FAIA, of Skidmore, Owings & Merrill, is a classic Chicago marriage of architectural aspirations and political shenanigans. Ninety sites were explored as possible locations, but the final choice was decreed by then-mayor Richard Daley, one of whose prime aims reportedly was to create a physical barrier to the northward spread of the city's black population. Assembly of the site, about a mile southwest of the Loop and a stone's throw from the Chicago Circle traffic interchange, also led to the demolition of an Italian and Greek residential neighborhood.

Lamentable as this was in terms of urban conservation and social policy, there was still reason to be optimistic about the campus design itself. The architects were among the nation's finest, and Netsch was one of SOM's brightest talents. He devised an ambitious plan with two circulation levels, buildings arranged by function rather than academic discipline, and a miscellany of concrete-framed architectural forms, all of which was hailed as progressive thinking at the time. Today, it can more easily be seen as another example of the failure of conventional urban renewal. Many of the buildings look banal, and the campus is sprawling, confusing, and more suburban than urban in character. It is second nature for students to volunteer their help to anyone showing uncertainty in navigating the campus. The architecture school's two main locations are separated by a walled compound of electrical transformers thwarting direct ground-level connection. All traffic is over a second-story footbridge unsheilded from the noise and sight of this buzzing industrial equipment.

The school's main element, the architecture and art building, was designed as a windowless exhibition hall and, only partly completed, it is now used for design studios and juries instead. Its plan, two superimposed grids overlaid at 45 degrees to each other, creates a disorienting maze of spaces that is not made any clearer by the multiplicity of intermediate levels between floors. (Netsch named this geometric exercise "The Field Theory"). Open planning and reverberant acoustics frustrate com-
mication in teaching and jury situations. Trying to follow a
dio lecture or a critique, says graduate student Diane Travis,
pires “the kind of attention you have to give to a foreign
guage.” One professor calls the A and A building “a 42-level
ement,” while students say that it is “ground zero—anything
 is better,” a place whose lesson is that “it’s not nice for
ple to be in a work of art.”

ome students have taken the initiative to make interior
vements to the building, but have also felt ignored by the
eg administration. The school is part of the college of archi-
ture, art, and urban planning, under the deanship of Richard
itaker. Whitaker is planning to have remedial work done to
igate the acoustic problems. Faculty members speak longingly
utting windows into the blank exterior to gain light and views,
this is not likely to occur soon.

rying as the architecture and art building has been, its occu-
ts have managed to cope with it for 20 years, and life has
ne on. In fact it goes on to the extent that several stu-
ally live in the A and A building, which says something about
itude, economics, and the total absence of student housing
the UIC campus. This last deficiency will be partly addressed
the construction of lowrise student housing units along the
tern campus periphery. Working drawings are now under-
y for this project.
The difficulties posed by the campus, the main building, and
lack of housing have been raised for two reasons: They are
entially issues of architecture and urban planning, and they
ptoms of the major limitation on the school of archi-

ow, conceptual house designed to express the rigor of a Cal-
ivist ideal community in its simplicity and hierarchical organi-
on by Julie Hacker; right, multi-use highrise tower for a
icago site by Thomas Longhi and Paul Sorensen uses construc-
esthetic to respond to diverse environment and program.
Students and faculty strongly feel that the University of Illinois' Chicago campus is chronically shortchanged in comparison to the older institution at Urbana and that they have been systematically put at a disadvantage by the competitive parent and a state legislature that is physically and emotionally closer to Urbana than to Chicago. "We're very much the stepchild" is how one student put it, while another says "tuition is cheap here, but they're always running out of money." The school's relative youth and its total absence of wealthy students has so far inhibited major support from a large and well-off body of alumni. It has no endowed chairs or significant body of privately funded scholarships. Although at most American institutions fund raising is a principal task of the dean's office, that doesn't seem the case here.

Money aside, the UIC school of architecture does have two impressive assets: the city itself and its thriving architectural community. On a practical level, the metropolis works for students. In the words of one, "Chicago is an available city. It's not as expensive as New York, and it's more exciting than Buffalo." Comparison with Buffalo is an ironic understatement, since students can draw on Chicago for first-class architectural paradigms, for challenging and visitable sites for design problems, for general cultural stimulus, and the school can draw on an experienced and highly active pool of professionals for its faculty. The city is an amazing blend of high art and vernacular design of concentrated urban energy, of physical progressiveness, and a formidable self-sufficiency that borders on but stops just short of isolation. Chicago is one of a precious few places in this country where a symbiosis of urban and architectural culture is in strong evidence, where a true critical mass exists, and where the study of architecture seems a natural and perhaps even inevitable act.

Like the student body, most of the faculty combines school with work, but otherwise the teaching staff falls into several categories. The senior tenured faculty dates largely from the early years of the Circle campus. On the whole it is solidly competent but understandably not as inspired and abreast of current thought as it once was. However, since it is made up of practitioners rather than academics, it has not lost touch with actual architectural process. The younger faculty, much of it adjunct seems generally more interested and energetic, and closer to the cutting edge in its work and its thought. This group includes such diverse design talents as Stuart Cohen, FAIA, Kenneth Schroeder, Paul Doukas, and the young partnership of Paul Flora.
Above, plan for an ideal city by James Lee, which 'addresses issues of organization, significant civic structures, and urban images'; left, design for a fence and gate made entirely of wood by Nancy Golden, which demonstrates the technical and expressive quality of the material, done for a technology course.

and Stephen Wierzbowski. There are also established Chicago practitioners who have taught on occasion, such as Helmut Jahn, AIA, SOM partner Bruce Graham, FAIA, Ben Weese, FAIA, Laurence Booth, FAIA, and James Nagle, FAIA. The roster of visiting critics has included Peter Eisenman, FAIA, Robert Stern, FAIA, Mario Gandelsonas, Alan Greenberg, Eric Moss, AIA, and Thomas Gordon Smith. The school's lecture program has balanced Chicago stalwarts such as Bertrand Goldberg, FAIA, Harry Weese, FAIA, and Myron Goldsmith, FAIA, with outsiders such as Philip Johnson, FAIA, Mario Botta, Hon. FAIA, Michael Graves, FAIA, James Stirling, Hon. FAIA, Charles Gwathmey, FAIA, Ricardo Bofill, Taft Architects, and Charles Jencks.

The last faculty category, that of "stars" and leaders, is small but critical. Over the last five years, Beeby and Tigerman have invigorated the school and given it an elevated self-perception and the beginnings of a national reputation. Students give them the highest praise, one going so far to say that they "have made something where there was nothing." Tigerman's role has been
the more public and flamboyant of the two. He has made major contributions to the graduate program, was a prime force behind the school journal, and has helped attract a different breed of student as well as prominent visiting faculty and speakers. At the moment, he seems determined to reinstate a Beaux-Arts orientation in his design studio, complete with watercolor wash studies of classical details. At the same time, visiting critic Eric Moss, an exponent of a highly kinetic, nonhistorist brand of Southern California postmodernism, praises Tigerman for his openness to other people’s ideas.

As director for the past half decade, Beeby has exercised his influence quietly and effectively. His objectives were to open up the school to new influences and to emphasize design quality. “The trick,” he says, “was to introduce a more theoretical basis, to get some study of history and criticism without destroying the rational, constructionist aspects of the curriculum that was one of the great strengths of the existing faculty.”

Like Tigerman, he has exposed students to new ideas in his design courses, and he has also brought in fresh blood through adjunct appointments and newly created tenure-track slots. These part-time and junior level positions have been deployed with the skill of a general commanding an outnumbered army. Similarly, Beeby has learned to perform bureaucratic end runs to secure a share of UIC’s limited discretionary funds and has found outside money for special projects, including a new lecture series, that would have otherwise not occurred. He also has begun breaking down the compartmentalization between undergraduate and graduate instruction by assigning faculty to teach at both levels at once. During his tenure as director, architectural theory courses were introduced to the graduate curriculum and the structures sequence reorganized around the notion of building types rather than construction materials. A similar revision of the undergraduate program is now underway.

With Beeby leaving for Yale, most observers feel that Tigerman will be chosen the next director. Beeby applauds “the incredible amount of energy that he’s put into this place—he’s done a wonderful thing for the graduate school.” Tigerman’s ability to generate attention would be an asset to a program that hasn’t yet gained its proper share of recognition, and his familiarity with the national and world architectural scene would help broaden an institution that, for all its virtues, is still a bit too focused on the comfortable and familiar world of metropolitan Chicago.

Whoever Beeby’s successor may be, he or she will face some interesting challenges in office. As the graduate program gains strength, there will be a need to balance that progress with improvements in the undergraduate division. (Even now the undergraduates, who outnumber graduates by nearly five to one, are beginning to feel neglected.) The architectural library, skimpy and located in two buildings separate from the pair that house the school, is another clear target for improvement. And while the school takes pride in the quantity and quality of its technical instruction, it has no regular computer courses and no permanent installation of hardware. SOM’s legendary data base of Chicago building and planning information is available to UIC but also is frustratingly out of reach until the school develops useful computer capability.

Then there is the issue of practice versus teaching. While the professional activity of the faculty constitutes much of its strength it can also act as a distraction. Students complain of adjuncts who send subordinates to teach some of their studio sessions, and of faculty members whose other commitments force them to leave class on the dot. Beeby feels that the school needs at least one or two full-time academics and has hired one to teach starting this fall.

The key ingredient in nearly all these situations is money. As a decently but not generously funded public institution, UI must find outside funds if it is to continue its progress toward distinction. If such an effort is beyond the ability of the college, then it must come from the school of architecture. Beeby says that fund raising would have been his next priority had he not gone to Yale, and it seems obvious that the task should be a major concern of his successor as well.

The recent blossoming of the architecture program at the University of Illinois at Chicago is substantial enough to make one ask whether the school is already at its peak. This question is very much a matter of context. If the school were in most other places, the answer would probably be yes. But in a city where the works of Root, Sullivan, Wright, Mies, and dozens of other distinguished architects line the streets, there is a clear mandate to press forward rather than be satisfied with what has been done so far.
This page, design for a museum by Paul Krieger dedicated to the Chicago bascule bridge system at Lake Shore Drive and the Chicago River. The design portrays symbolic as well as structural aspects of bridge type unique in Chicago. Top, museum's bridgelike qualities; above, detail of the top of one of four towers; left, approach to the museum.
The project is a campus for Boston’s Emerson College mass communications school, with a site impinged by the Massachusetts Turnpike and commuter rail lines. It is Michael Maltzan’s degree project, and today is its final review. The drawings, which include 18 perspectives, are pinned up in a gallery of Woods Gerry, a hillside Italianate mansion; the room opens onto a sunlit terrace. Students are crowding into the gallery, standing, looking for a seat or sill, whispering. The word is out.

Maltzan starts: “The highway is the dominant morphological element. This is not a campus like the University of Virginia but a precinct where buildings inform each other, creating a campus/public space duality. There’s no classical parti; you can’t impose such order on this site. But I’ve worked on a strategy and implementing it, a strategy of the picturesque . . . . You never see this site as a whole, but must assimilate its structure slowly, as a series of vignettes, as a pedestrian. There’s an accretion of imagery; you see things . . . . The project deals with pattern estrangement, in the poetic sense. It’s not surreal; these are common elements, distorted. But the approach is critical; something is dissonant—a blurring, a distortion, or an error?”

Maltzan then describes the two objects (actually radio/television and classroom/cafeteria facilities) that create a set on the site: “The first is a techno-fetish, a strange electrical thing that you can’t get near. The tilted drum is the other. The techno-fetish appears the most interesting thing to look at, but with time its influence wanes. The drum’s simplicity allows understanding. These are voiced pieces. They must speak to each other and of the whole project.”

The jury begins its discourse. “You’re making your case with a project that, contrary to most of what we’ve seen, is not concerned primarily with plan. You’re concerned with the urban condition, how to relate urban design to views on the ground. You’re concerned with iconographic issues, not a typological view, but the concreteness, looks of buildings. You’re formulating this by reaction, or as criticism, and posing a different way to look at urban problems. You’re also concerned with pleasure with the drum and the techno-fetish imposed on the site.”

The discussion has just begun. Hard criticism melds with exploration of ideas, and, at moments, some humor; the presentation becomes a shared experience. The exchange is provocative, but kind. The conclusion, slightly past the allotted time: “A true thesis. It defines a problem and addresses it.” Smiles, applause, with champagne to follow.

Such were degree project reviews this spring at RISD, the Rhode Island School of Design, in Providence, R.I. The review lasted three days and were conducted in three separate rooms.
ultaneously. Not all of the discussions were like this one, and all had as large an audience, but each found its own voice in each student’s own applause.

In a retrospective review of recent graduates’ degree projects, lith Wolin, who has taught design and history at RISD for years, noted, “What constitutes an adequate or appropriate topic? Ten years ago, most students simply chose projects or sites that were about to be developed: their uncle’s basement, a downtown office complex, a public building given by competition. Really ambitious students took up the pendulum projects of famous architects for prominent sites. This riddled emulsion of the profession was in sharp contrast to the more visionary projects of years previous and to a ‘thematic’ or problem-oriented thesis that has dominated last few years.

The thematic thesis begins with a question: Can a particular building type be modified to fit a changed urban environment? Can small buildings control large landscapes? Can political ideologies, literary themes, or concepts derived from painting be represented through architectural forms? The degree project is now less a demonstration of professional competence and more a contribution to an artistic and intellectual argument concerning the nature of architectural work.

In selecting architecture and in selecting RISD as the place to study it, the students have already made important decisions, many by the age of 17 or earlier (it is entirely an undergraduate program). Those decisions put them in a school, and a department, unlike any other. For RISD is not the traditional art school, phasing technique and skirting knowledge. Especially in architecture, students engage in an exploration of the discipline from a broad, humanistic interpretation of the field and its cultures, past and present, informing it. Tempering the intellectualism is a strong commitment to the classical foundations of architectural education and to the concept that architecture is an art that must result in buildable buildings.

But RISD then goes further, articulating a critical role for the architect and discouraging rote adherence to conventional practice. Evident is the view of design articulated in the school’s 1983 accrediting submission: “The program does not accept a reductive or deterministic view of the practice of design; it mistrusts any effort to describe design as a neutral procedure for generating form from narrowly defined, short-term needs, without the dialectic of some set of formal propositions and without some cultural preparation.” Students and faculty are encouraged to think about architecture, to appreciate it as a discipline and be critical in their acceptance or rejection of conventions. More importantly, they are encouraged to be self-critical.

The department’s role is recognized internally, Thomas Schutte, RISD’s president, notes, “There is no question about the architectural fit at RISD. It’s the unit that cements us as a university.”

Within the department, it’s a close fit of students and faculty that cements the program. Without exception, faculty and students refer to each other as extraordinary and seem to know each other well, the kind of knowing that sometimes occurs in the wee hours. As in any school, there are ideological differences, but a general passion transcends the individual rubs. “These are some of the brightest students anywhere,” notes visiting critic Jorge Silvetti of Harvard. “They are not intimidated or afraid. They produce right away and seem to be over the myth of designing. They are fluent at making form and identifiable by that.”

“They draw like angels,” says Jeffrey Katz, a visiting critic who once coordinated the second-year program. “They are very easy to teach; they communicate through drawings. I can draw with them, and they understand. The whole atmosphere is different from a graduate school. RISD students are less timid about doing design, more open to ideas, more willing to experiment. They go through an incredible intellectual pretentiousness. It makes them feel part of the cutting edge. It doesn’t lead far in design; they must finally go to the boards and do it. But it heightens the level of the work, ennobles it, and makes it grand — a cultural effort.

“The critics focus on how architecture sits in culture, on architecture as a discipline, defining the parameters of the discipline, its limits and lack of limits. Juries are constructive, not nasty. No one says, ‘This is crap’ or ‘You’ll never be an architect.’ Jurors try to relate designs to the larger ideas in general.”

The students, in turn, speak of the faculty with assurance of their commitment to teaching. The students sometimes seem more concerned about faculty workloads at the school and faculty salaries than accessibility or dedication. And, while assessments of effectiveness or currency varies by personality, ideology, and interests, there is a clear sense that faculty and students are in this together, that architecture is something they share. The students, of course, exhaust themselves, frequently teaming into the night on presentation drawings and critical review of each other’s work.

Student initiation is freshman foundation, a one-year interdisciplinary program for all entering students, whether painter, fashion designer, sculptor, or architect. Here basic skills, friendships across disciplinary lines, and an introduction to design occur. Transfer students have a compressed version of this during the summer prior to entrance. The students choosing architecture then move to the division of architectural studies, a move of some distance, for the division is located in a converted late-18th century warehouse building along the commercial waterfront of Providence. Here, it seems, some students may not emerge for four years.

The students’ first exposure to the architecture faculty is also more aware of the opportunity. Here basic skills, friendships across disciplinary lines, and an introduction to design occur. Transfer students have a compressed version of this during the summer prior to entrance. The students choosing architecture then move to the division of architectural studies, a move of some distance, for the division is located in a converted late-18th century warehouse building along the commercial waterfront of Providence. Here, it seems, some students may not emerge for four years.

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ross page, top, Bayard Ewing building, home to RISD’s architecture department. Left and above, ‘Campus Strategy for Boston’ Michael Maltzen, with Judith Wolin as critic. The urban site was seen through a series of perspectives to simulate pedestrian experience. Among program requirements were television litigies (above) and a cafeteria/classroom building (left).
Above, 'Urban Propositions for Boston' by John Bass, with
George Wagner as critic. The project proposes heteroge­
eous forms amid existing buildings on 'leftover' urban site.
Elements include linear mixed use building to define the
space and seven-sided study all to introduce 'magic.' Below,
'Multi-movie Suburban Theater' by Lauren Kogod, with
Michael Hays as critic. The complex 'criticizes' surround­
ing market-bred structures by deforming traditional solu­
tions. Design makes a commonly linear building vertical,
elevates circulation spaces, differentiates inside and out­
side, top and bottom, one side from another.

The faculty coordinator for sophomore studio rotates. This ye
George Wagner, a young architect passionate about design,
was fall coordinator, and Sam Frank, whose interests include
19th century architectural writing and applied research, was
spring coordinator.

The introductory sketch problem for the fall was to design
doorway for a nearby furniture store, a problem that focused on
drawing skills and graphic conventions, developing an aware­
ness of architectural language, and understanding the canons as a bas­
for departure later. (Last year, Wagner had students design the
own tombs, using the Adolf Loos quote: "...here someone is
buried. This is architecture." He changed the problem this ye
because that led to "lots of poetry and little architecture.") Th
last project of the fall included architectural and landscape el­
ments for an art school, which had a descriptor to release stu­
dents from "the dilemma of too literal representation."

The second semester moves toward more and more comp­
cepts of architecture and landscape and includes a prob­
on site and context; typology and urban fabric; and design of
town hall in New England. The last involved a critical and pro­
grammatic exploration of tectonics, material, and structure. An it involved site selection by the student: either a picturesque
village waterfront site or an "ugly" highway strip. Most chose the strip.

After the second year, the curriculum changes in a way par­
allel to changes that have occurred in the school over time.
There is increasing attention to the discipline of architecture.
The attention to principles continues, in technical, history, and design courses, but the theoretical concerns gain importance.
And with them, more exposure to fields outside design with the ortical implications for design.

There is little sympathy for historicism and little discussion
of architectural postmodernism at RISD; these are considere­
things of the past. There is little focus on style, period. The
critical emphasis, however, leads many students to select the
language of modernism as most appropriate to their purposes
The selection is not an endorsement of modern architecture bi
rather a renewed sense that its language can be used to critici;
modernist culture more effectively than the language of histor
The resulting architectural pronouncements rely frequently
on distortion, the irrational, the unexpected void, or the exag­
erated presence for critical voice. The buildings and urban
design schemes are often discomfiting, some of them imbued
with a kind of perverse poetry, others more ambiguous, their
critical intent as yet unrealized.

The critical inquiry inherent in much of the advanced wor­
at RISD gives rise to a characteristic language, which has for
mal and theoretical implications. To some, the faculty and st­
dents may appear to talk in tongues. But the language, which
derives in part from that aspect of architectural criticism relate
literary criticism, as well as from philosophy, art, and archi­
tecture itself, is less an attempt to be exclusive than an attem­
to achieve critical precision. This intellectual ethos is deter­
mined in large part by Machado, who when he came nine ye
ago brought with him an interest in structuralism and its app­
cation to architecture. Structuralism is an approach to literar­
criticism advanced by Roland Barthes that seeks to define th
structural mechanisms, or implicit system of units and rules,
ratives that determine and yield meaning on both literal and semantic levels.

More recently, Machado's views have transformed into a critique of structuralism, or into deconstruction, a type of literary course inspired by the French poststructuralist philosopher Jacques Derrida. Deconstructionists maintain that language is an unstable and slippery medium that under analysis it inverts or contradicts its own claims to meaning. The demonstration of this can be paradoxical in that it releases a multitude of new meanings that are the product of the commentator's own semantic free play. Deconstruction has been criticized for reversing the priority of creative over critical writing, for instilling a sterile skepticism, and for relying on a jargon that excludes lay people from critical debate.

The association of architecture and critical intent poses difficult questions RISD is exploring. Criticism may achieve its potential when it contributes to the body of knowledge, instills values, provides insights, and illuminates new realms of the possible. Great architecture aspires to this as well, but must go beyond miment to achieve satisfaction as well. The artist and critic disrupt; the professional must somehow resolve as well.

At RISD, critical inquiry has pedagogical implications as well as artistic and professional concerns. The pedagogical issues address the potential paradox inherent in critical architecture, t also to the role and understanding of the students and where tical and professional interests merge.

RISD faculty and students, however, seem to exercise enough self-criticism to maintain perspective. Students seem to know that their projects are more critical than pragmatic; most understand when exploration more than amenity is sought. The faculty who pursue these issues are explicit in their intention to make criticism an avenue to responsibility, a mandate to think about designing. Students and faculty share the view that the discipline of architecture is broader, culturally and ethically, than current practice and that critical design is a way to get from here to there.

Machado's presence at the school underlies this thrust, and his role as designer, as well as teacher, personifies it. A principal of Machado/Silvetti of Boston, Machado is recognized at the school as its star. No one talks about the program without talking about Machado, to the degree that his name is sometimes generalized to refer to the whole range of people there sharing his interests.

According to Derek Bradford, AIA, former head of the department, "The power of Rodolfo is in design, his emphasis on making buildings. When Rodolfo came, he was one of many very promising young architects exploring theory through design, not just words. I remember seeing his portfolio. Wow! I wanted this man
for our students.” Students describe him as direct, explicit, and “economic” in his comments, passionate in his effect. He is known as the first in a review to put theory aside and focus on design itself. Thus, some apparent contradictions between theory and practice find a context for resolution within the school.

As head of the department, Machado has been instrumental in hiring faculty and selecting visiting critics and lecturers, many of them young and others with international reputations. Among those hired recently by the school are Michael Hays and George Wagner, both of whom are young and seem to have the strongest early impact on students. “George and Michael are the most influential,” one student said. “They get everyone for a whole year subverted. Not just design, but they influence what we study. George is more the poet, the designer. He encourages us to take formal risks. Michael is the historian, critic. He makes no pretense that history is objective or chronological. Sophomores sometimes complain, ‘Soooo Michael’ after a lecture. But Michael is important in trying to put architecture in culture. He’s always saying, ‘Architecture is a cultural act.’ And he structures his lectures and case studies to show it.”

The investigations by faculty become part of the school through option studios, special lectures, or the six-week break between fall and spring semesters called “intersession.” Wintersession is the opportunity for faculty to teach experimental studios and seminars and for students to explore other RISD programs. Transfer students must stay in a studio, and many other architecture students stay as well, but students also use it to get out of the building. One, David Ball, commented that wintersession was the essence to understanding the lack of truth in one’s own discipline—“Other disciplines will tell you about your own.”

During the 1960s and 1970s, the division of architectural studies was structured to explore that concept more than now. It was based on an interdisciplinary model of education that sought to blur the distinctions between design disciplines, whereas now it celebrates them. There is some continuity, particularly in the sophomore year, but the differences between the school then and now are profound.

Fifteen years ago, RISD was among the first schools in the nation to change its curriculum in accord with the “Princeton Report,” which called for education based on the nondisciplinary concept of environmental design. Warren Luther became head of the department and, ultimately, chairman of the division of architectural studies. “Luther had the idea of wrapping it all together, all the disciplines, vertical studios,” says Derek Bradford. “Students were uneasy with the lock-step process, faculty too. Luther sought an alternative, and the Princeton report provided it. He joined the four design programs, initiated wintersession, encouraged faculty to pursue their own ideas.”

At the same time, the school sought to broaden its intellectual base. The school was relatively provincial in that most of its students came from New England and most of its faculty were practitioners from Providence. This changed. Friedrich St. Florian, AIA, now dean, Machado, and Wolin were among those hired. “I didn’t necessarily have to subscribe to their view. This was not a single-theory school,” Bradford says.

The more recent emphasis on theory and the discipline of architecture has left some faculty in a time, and ideological, gap. Those adhering to a concept of problem-solving, program and shelter for architecture find the current rhetoric difficult and suffer loss as their ideals attract fewer bright students or lose prominence in the curriculum.

There still exists room for other views, however, despite the clarity of RISD’s new image. Student George Gannett notes, “RISD is not teaching a dogma. Here, there is an openness to different approaches.” Sam Frank says, “There is a party line. Rodolfo’s point of view, his aura, his charisma, make some feel left out. But there is life outside the clique.”

Students bear this out. While some talk about the emphasis on the intellectual aspects of design, history, and culture with pride and excitement, there are others, admittedly fewer, who find other heroes and other concerns, ranging from structure and computer-aided design to housing for the mentally ill. Among these students, Jim Barnes (the acting dean while St. Florian served four years as RISD’s vice president for academic affairs and, now, completes a fellowship at the Academy of Rome) is especially liked for his fairness, caring, and openness to their ideas. Notes Machado: “There’s room in the curriculum for students to go by and not be contaminated too much. They may choose not to participate in the conventions.”

Recently, the department was up for accreditation. The process provided the opportunity for self-examination and perspective and the department, true to its critical calling, took advantage of it.

The accrediting team found the program “unique in architectural education,” with a pedagogical clarity and consistency for which it is well known and respected and for which students choose it. The team cited the program’s emphasis on humanistic values and the art of architecture, and its preparation of students for a professional role “much needed by the profession.” The report, however, voiced lingering concern about the “introversion” of the department and its “in” language.

The faculty met and reviewed the report, after which Machado wrote a summary memo to Schutte, RISD’s president. This department of architecture, Machado wrote, “teaches and encourages artistic expression yet it demands that it be channeled through the design of buildable buildings. It resists the notion of architectural or artistic investigations that are left suspended in an unspecified cloudbut it asks for materialization through design. It does not propose a style. It teaches professional issues but is critical of them; it teaches ways of building without making a myth out of them; it teaches principles that simultaneously are exposed as what they are: arbitrary cultural conventions; it teaches rules and non-rules.”

Machado’s words are mirrored in the school’s efforts to develop a critical approach to architecture and itself and to transcend the separateness of art, theory, and practice. □
Big, Rich, and Self-Conscious

School of architecture, University of Texas, Austin. By David Dillon

e clue to the workings of the University of Texas school of architecture is its location: Austin, three hours' drive from Dallas and Houston, romantic heart of the Texas Hill Country, home of Willie Nelson and the microchip revolution. Ten years ago, Austin was a laid back, aw-shucks kind of place, sprinkled with luscious limestone buildings and idyllic lakes and swimming holes. Today it is a runaway boomtown, a focus for companies, real estate and development entrepreneurs of every stripe. Romance and nostalgia compete head-on with freeways, shopping centers, subdivisions, and other loopland detritus. Austin, for better or worse, is a city on the go, though where it is headed is not clear.

The UT school of architecture reflects many of the same ambitions and ambiguities. With 700 undergraduate and graduate students, it is one of the largest five-year programs west of the Mississippi. Its major buildings, designed by Cass Gilbert and H. Cret, recently underwent multimillion-dollar renovations. It has an excellent library, an outstanding architectural drawings collection, and enough money to make administrators of other institutions slaver.

And yet the school is also painfully self-conscious about its age, or what it perceives as its lack of one. Located well off the architectural high road, it is convinced that “it don’t get no respect,” particularly from the Eastern architectural establishment.

“The architectural press is oriented to New York, and its members actively look at their own alma maters, or the schools down the street,” says Harold Box, FAIA, the school’s dean. “To get them to pay any attention to Austin, we must get them down here, or have something important enough for them to notice.”

With this goal in mind, UT has been marketing itself with the enthusiasm of a fledgling rock star. It has hosted conferences, endowed chairs, published glossy journals and catalogues, established an architectural research center. The school conducts its own version of a Gray Line tour for visiting architects, bringing them to Austin for a day or two in hopes of luring a few of them off the bus for an extended stay.

Above, architecture school’s Sutton Hall at University of Texas, Austin. Below, projects for ‘Georgetown Chocolate Works,’ a research center for food delivery systems, on a site in Washington, D.C., with Lance Tatum, AIA, as critic. Clockwise from upper left: projects are by: Sean Webb and Tracy Stone; Jun Iiguchi and Michael Conner; Dex Ott and Stan Burgess; Tom French and Charles Renner.
"When people mention Princeton, Harvard, Columbia, MIT, and Berkeley, I want them to add Texas," Box says. "I want us to be an alternative to those schools, with low tuition, a sunbelt location, a place where the building action is."

Not everyone is as convinced as Box that this is the route to travel. Some critics dismiss the promotional activity as shameless media-mongering, a showy substitute for substantive reform in the school's curriculum, while others regard it as a well-intentioned pursuit of an unattainable goal.

"The school could find itself in an unfortunate Catch-22 position where the more money it spends the less return it gets," says associate professor Michael Benedikt. "There are some things you just can't change, such as location. We may just have to settle for being very good."

"Very good" is what the UT-Austin school of architecture is not yet. It is a solid school, with a number of strong programs but also significant gaps in key areas such as architectural history, computers, planning, and architectural theory. And for all its national aspirations, it retains many qualities of the small Southern or Midwestern college: The atmosphere is low key, polite, a bit sleepy. The rigor and intellectual combative ness that one takes for granted at the top architecture schools is noticeably absent. This is not a place for debate or icon bashing.

"The desire to make the school better and rush it into the front rank is genuine," says one professor. "But the administration wants this to happen without conflict and controversy. They don't want things to reach a boiling point."

The UT-Austin architecture program began in 1910 as part of the school of engineering. A school of architecture was established in 1948, still under the aegis of the engineering school, and became autonomous in 1951. Harwell Hamilton Harris was wooed from California to be its first full-time dean, and soon found he had inherited a divided camp. "What had held the architecture program together," Harris recalls, "was a common enemy—the school of engineering. When that went away the faculty members started fighting among themselves. It was difficult to get much done."

In an effort to break a Beaux-Arts stranglehold and introduce some fresh ideas, Harris hired Colin Rowe, John Hejduk, FAIA, and several other young professors who later went on to distinguished careers. Hejduk remembers those days in Austin as holding much promise and frustration. "It was a fluke convolution of people who didn't know each other all arriving at the same time at the same place," says Hejduk. "We all had ideas and tried them, and three of us—Colin, myself, and Bob Slutzky, painter—all got fired at the end of the first year. It was my first experience with real opposition to ideas. We ran into a conservative old guard that didn't want to change."

Harris remembers Hejduk et al. as "a different crowd, and they had to stick together, otherwise they would have been complete alone as far as the rest of the faculty was concerned." Harris left in 1955 to resume private practice, and was followed by a series of less acclaimed but solidly pragmatic figures who enlarged the school's reputation as a source of technically proficient architects who served the profession and their communities effectively.

Like many American universities, UT-Austin became a hotbed of social and environmental concern in the late 1960s and early 1970s, with architecture students often leading the demonstrations. Students from these years recall fondly being shaken out of trees by irate regents for protesting the bulldozing of Waller Creek for an expansion of the football stadium. Many also recall, less happily, that the school's professional program was in shambles.

Left, two design projects for a highrise office building in Seat with retail shopping at street level, both with Natalie deBlois FAIA, as critic. Top, sheer tower by Sharon Porter; bottom, contrasting juxtaposition of materials by Carroll Stockard.
"It was possible to go through four years at UT without ever being involved in a traditional architectural project," one of them remembers.

If the school's reputation slipped within the professional community, it plummeted with the university administration and the board of regents. Programs were canceled; funds for basic items such as drawing boards dried up; deans came and went with baffling frequency, leaving the students and faculty to muddle through as best they could.

The school's outcast status ended with the appointment of Box as dean in 1976. A respected Dallas architect and previously dean of the UT-Arlington school of architecture, Box used his political savvy and good old boy manner to placate the regents and re-establish the school's credibility with the profession.

In his first year he doubled the school's operating budget, and within three years had established an architectural drawings collection and a separate architecture library. A few of the more liberal and contentious faculty members were eased out, but those who remained saw their salaries rise and their concerns over supplies and program funding end. The school's main classroom and administrative buildings were renovated, at a cost of $11 million. Almost single-handedly Box raised $500,000 for the O'Neil Ford centennial chair, currently held by Charles Moore, FAIA, and over $1 million to establish the Center for the Study of American Architecture. A $6 million fund drive is planned for the near future.

In the early 1970s, prospective employers were complaining that UT architecture students couldn't draw. So the school inaugurated a demanding and highly coordinated undergraduate drawing and design program. Basic courses in structures, statics, and mechanics were beefed up, and all exceptions to prerequisites were eliminated. The school now has foreign study programs at Oxford and Lugano, Italy, and plans to offer a Ph.D. in architecture as well as degrees in landscape and interior architecture in the mid-1990s. By then, enrollment will be split evenly between undergraduates and graduates (the current ratio is 75 percent to 25 percent).

The consensus view is that Box has been an outstanding manager and administrator, an institution builder who arrived on the scene when institution building, or rebuilding, was the first priority. Now the question is: Where does the school go from here? UT has no resident gurus who have stamped the program with their own individual philosophies, the way Gropius and Sert did at Harvard or Kahn did at Penn. Recent student work reflects a wide range of design influences, from the refined Texas regionalism of O'Neil Ford to the abstract expressionist and constructivist work of Richard Meier, FAIA, and Aldo Rossi. Postmodernism came and went several years ago without leaving any lasting impression on the school. The urban design program is active but regionally focused. There is one highrise studio but little concern for freeways, shopping centers, and residential subdivisions that constitute the bulk of development in Texas and the Southwest. Architectural theory remains a small though expanding part of the program. The school sees the absence of a dominant design philosophy as a major strength, a catalyst for individual initiative and free exploration.

"I'm not sure that a school should have a guru or an ideology," Box says. "We are large enough that it would be foolish to have a father figure trying to lead 700 students. We've always had a number of approaches, so that students can go from one design studio to another and eventually learn to evolve their way of doing things."

But this view is not universally shared by other UT faculty members. "A student learns about highrises in one studio and

Right, design for Haraszthy Winery on the floor of California's Napa Valley by Carroll Stockard, with Juliette and Terry Smith as visiting critics. In addition to spaces for wine production, the program called for interiors for tasting and contemplation of wine.
The students, for their part, say that the good teachers at UT are very good, but that there aren't enough of them. "We have a good first team but no bench," one of them put it. Then is a strong feeling among graduate students that the studios are too large and that the best teachers are oversubscribed, to the point that a small number has been willing to sit out a semester in order to get the studio they want.

Some of this is subjective, of course, and might be true of most faculties at most architecture schools. Yet it may also be a commentary on the ingrown nature of the UT faculty. Until recently, a high percentage of the faculty appointments was former UT-Austin graduates who both knew the university system and also lived and practiced in Austin. In addition, many part-time faculty members are drawn, by necessity, from the Austin area, which has never been a bottomless pool of design talent. Such a combination almost inevitably produces a kind of provincialism that shuts out the larger world of architecture.

A major recommendation of the School of Architecture GTA Conference, held in October 1984, was that the school "increase the proportion of faculty members educated at institutions other than UT-Austin." Box agrees that the recommendation is sound and will be followed. The two most recent faculty appointments were from Berkeley and University of Washington, and it is likely that in the future a UT-Austin degree will be a liability for those who hope to teach full-time in the school of architecture.

Among the most widely publicized and potentially most consequential recent events at UT were the creation in 1982 of the Center for the Study of American Architecture and the hiring last year of Charles Moore as the first O'Neil Ford centennial professor of architecture.

The Center for the Study of American Architecture was created as a scholarly research arm of the school, affiliated loosely with the center for the Study of American Architecture at Columbia. The original name was the Southwest Center, but the explicit regional tag was dropped as being too limited. Among the center's goals, as spelled out in its brochure, are to provide a definitive record of Southwestern architecture, study the evolution of the rural town form, accumulate oral histories from important living architects, and study the effects of population growth and transportation on urban forms.
Professor Lawrence Speck, AIA, the codirector, describes the center as “a cause.” He likes to joke about the provincialism of West Coast editors and critics, who think that the Astrodome is New Orleans and that the best collection of Texas buildings is Six Flags Over Texas. Yet he also uses it to justify the end for his own fledgling enterprise. "I believe that it’s important to talk about the energy of American architecture and American cities from the perspective of the Southwest," he explains. "A city like Minneapolis probably has more in common with Dallas or Phoenix than with the first generation colonial cities such as Boston and Philadelphia."

The center publishes a slick annual journal called—what else? Center, which is distributed by Rizzoli and is clearly intended to compete with Perspecta and similar journals from the top architecture schools. It has also sponsored two symposia: The City, and The Human Spirit, a rousing popular and critical success, and Ah Mediterranean: 20th Century Classicism, by most reports a flop. The subject of next spring’s symposium is Reality in Architecture. The center also organized an exhibition last spring of the work of Harwell Hamilton Harris, its first dean, accompanied by a catalogue written by an Austin freelance writer who was identified, misleadingly, as a sitting scholar.

It is too early to judge the impact of the Center for American Architecture on the school of the region. It may turn out to be an instructive scholarly expression of the vernacular tradition, or it may, to quote one UT faculty member, “be the tail that ends up wagging the dog.” At the moment it has the solid backing of the dean and the administration, but a glance at the symposium topics suggests that it is still groping for a focus. The appointment of Moore to the Ford chair has been considerably more controversial, not because of anything Moore has done but because of what so far he has not done. He was selected from a short list of architects and scholars that included, among others, Kenneth Frampton, James Stirling, Hon. FAIA, Richard Rogers, Hon. FAIA, Romaldo Giurgola, FAIA, and Christian Norberg-Schulz. His primary responsibility is to direct the school’s first postprofessional degree program, yet the broader objective is to use him to attract outstanding students and faculty to the school, while also raising the aspirations of the Austin architectural community.

But to date Moore has been the invisible man. He taught one course last fall and spent most of his time away from Austin. His continued absence has been the topic of much sarcastic joking from both students and faculty.

Lawrence Speck admits to being “goosey” about the Moore appointment, as does assistant dean Larry Doll, AIA. “I don’t think that we fooled anybody when we hired Charles Moore,” Doll says. “And if this were the only thing the school was doing, I’d be concerned. But he’s only one part of a larger strategy to raise the prestige of the school.”

Box says he believes that Moore will be an asset: “We want to have stars. Charles Moore is a star, and we want to have more stars. That’s what the endowments are for, to create a situation that is attractive enough to make people want to come and live in Austin.”

That may be a sound strategy, or it may be just expensive window dressing that puts additional names under the school’s imprimatur without doing much for the students. As with the Center for the Study of American Architecture, it is too early to say. Yet in its way the Moore appointment only underscores UT’s split vision of its own future. No longer just a degree mill, content to turn out architects who pass their licensing exams on the first shot and get good jobs, it is not quite sure what the next move is. So it is moving on several different fronts, sometimes aggressively, sometimes tentatively, but so far at least always quite safely.

“If you’re not smack in the center of things, you have to take risks,” says visiting critic Todd Williams. “You have to plunge in and learn to live with the consequences. Cut out some things. I don’t think that the spirit exists at the University of Texas yet.”
Building on a Humanistic Base

Department of architecture, University of Pennsylvania. By M.J.C.

Last semester at the University of Pennsylvania's department of architecture, associate professor Richard Wesley taught a studio on the "architecture of alterations and additions." The students were asked to propose alterations and additions to the Philadelphia College of Art building—designed by John Haviland in 1824, added onto in 1838 by William Strickland, doubled in size by Frank Furness in 1875, and slated for an extensive alteration by Louis I. Kahn in 1964. The student proposals were to consider the past while being cognizant that other changes sure would occur in the future. In commenting on the nature of the studio problem, Wesley says: "In alterations and additions, the past assumes a value beyond its traditional function as a repertory of forms. It is represented by the building itself...."

The assignment was something of a classic design problem for a Penn studio—an analysis of a piece of Philadelphia's urban context—but in a larger sense the design problem appears as a microcosm of the architecture department at Penn. For the past four years, it too has been going through a series of "alterations and additions," prompted by its chair, Adèle Naudé Santos, AIA, which are only now coming to a point of fruition. I the spirit of the studio problem, the changes honor the school's own sense of place and architectural philosophy—broadening and deepening it without violating it.

Penn started architectural instruction in 1890 with an empl
on architecture as a fine art. In 1903 Paul Philippe Cret came from the Ecole des Beaux-Arts in Paris to head the

school, adds that Kahn and others of the Philadelphia School

"were searching for the essences and basic meaning of every-

thing from the nature of an activity to that of materials and the

technology involved in constructing a building."

After Kahn's death in 1974, according to many of the people

I talked to at Penn, the school began to stagnate. But the ori-

entation toward architecture in Philadelphia that was part of

Penn's tradition could not simply disappear along with one bril-

liant man. It was this tradition that Santos chose to build upon

when she came back to the architecture department in 1981,

having studied there in the 1960s.

Although a Penn alumna, Santos, who was raised in South

Africa, had also studied at London's Architectural Association

and at Harvard, had practiced in places such as Cape Town, Paris,

Montreal, Houston, and Philadelphia, and had taught at the Un-

iversity of Cape Town, Columbia, Rice, Cincinnati, Miami Uni-

versity, and Harvard. "My criticism of the school was that every-

body who taught at Penn was either a Penn graduate or closely

associated with Philadelphia," says Santos. "Everyone agreed

that it was a good school, but if you asked people what Penn

was, they couldn't quite tell you. If you asked who was teaching

at Penn, they didn't quite know. I thought Penn had become a

bit hermetic and that we had to open the doors to other kinds

of influences while still keeping the things we believed in."
Extracting the spirit of Penn was accomplished by a series of faculty meetings in which there was a lot of soul searching. "The first meeting I had with the faculty was very interesting," remembers Santos. "We all sat down, and I said, 'Look, we're really talking about the tradition of the school—what is Penn's tradition? Is it something we can define, and if it is, is it something useful to us in the 1980s?" Although the faculty was diverse in terms of each individual's work, they shared a common view. "We were talking about the human content of architecture," says Santos, "that it is indeed a social art, about the importance of context, about the issues of behavior, about the experiential aspects of architecture." Having defined what Penn was all about, Santos adds, "some faculty said, 'This sounds like apple pie stuff.' But it's not apple pie stuff if you think about what's going on elsewhere. There are people teaching in schools who are not dealing with architecture as inhabitable space, period."

For the students' part, they seem in tune with the school's philosophy. Penn's is a graduate program with the majority of the students enrolled in a three-year course of study that leads to a first professional degree. As one student told me, "People have an attitude here that architecture affects social issues and that urban issues and architecture should come together." Another commented that "the notion of making architecture is significant. They teach you experiential architecture; it's perceptual versus conceptual. And that's really from Kahn, this notion of 'feeling' a place." Although Kahn's influence is still a part of Penn, the students are quick to point out that he is not idolized. "When I came here," said one student, "I was relieved to find that Kahn's legacy was not a Taliesin kind of thing. It acknowledges the greatness of the man, and although his architecture ended with his death, there are principles that continue to be valid." There is also a healthy skepticism by the students toward faculty who try to place Kahn on too high a pedestal. Some refer to him in such a deified role as "Louie I-Con."

According to Santos, there were two full-time faculty members when she arrived. Shortly thereafter one became adjunct and the other died, leaving her to start from scratch. Although there is still a large adjunct faculty that includes practitioners such as Steven Izenour, Douglas Kelbaugh, AIA, and John Blatteau, Santos has appointed four full-time faculty with careful consideration to how they contribute to another item on her agenda: strengthening the core of the program, particularly in its theory component. The core consists of the first three semesters in which theory, drawing, and technology lectures are elaborated upon in studio. "People who teach theory teach in the studio," explains Santos, "as do people who teach technology and drawing." Thus, people who teach core courses are not just "consultants" to the design studio, but are expanding...
on issues that were introduced in a lecture format. "These are people who can take what they're saying in the classroom and make it real," she adds. The core prepares students for the following three semesters, comprised of elective studios, elective courses, and thesis studio. (There are at least six elective studios for the students to choose from each semester, many taught by visiting critics, including one planning and landscape students.) Through the core, Santos explains, "presumably you've given the students the confidence, ability, and theoretical background to be able to introduce a number of points of view, because by that time they're likely able to argue their own." Architectural theory at Penn is taught by faculty "who are dying and conceiving of architecture as part of the broader culture; as a humanistically based discipline," says Richard Wesley, who teaches theory along with Marco Frascari and David Atherbarrow. Architectural historian and theorist Joseph Kwert is also a frequent visitor. "We use history as part of an explanation of theory," says Santos. "We talk about it as a social ting and try to understand its nature—what were the factors that led to the results we can now see, and what of those things are timeless and transferable." It's an approach that seems very much a part of Penn's tradition, particularly with respect to the theory of building and the "poetics of construction," which is a
Above, left and right, 'Motel in the Desert' project by Curt Dilger for a barren, flat, waterless site in the Arizona desert, with Thom Mayne and Michael Rotundi of Morphosis as critics. The design comprises a carport with motel rooms behind and other accommodations beyond, accessible by swimming a water channel; below, Schuylkill River's edge redevelopment project for last semester's design week charrette, intended as a 'continuation of buildings as monuments along the edge of the Schuylkill River.' Across page, thesis project for 'A Church for St. Jude Parish,' Monroe, Conn., by Nancy Rago, with Jack Thrower as critic. The project won first place for Penn's thesis prize this year.

hot topic at Penn right now. The latest issue of VIA, the student journal, examined "The Building of Architecture" and included articles on building details as the generator of architecture, a construction system of ancient China, the effect of mechanized building construction on architectural theory, and the construction of Hassan Fathy's Dar al-Islam project in New Mexico and Kahn's Kimbell museum in Fort Worth.

This attention to the making of architecture is revealed in the student work, which, although it ranges widely in subject matter, has a consistent quality of appearing very buildable. Almost all the projects are designed for a real site and employ a specific building technology. Many are rendered to show connections between architectural elements. The projects look solid—they're intellectually stimulating and believable at the same time. "I think that's healthy as hell," says Santos with obvious pride. "But if the school was interested only in the making of buildings, there'd be a problem. That's why the whole theory component is critical from day one."

The previous lack of a coherent theory sequence affected the elective and thesis studios to the extent that students were not really exploring theoretical issues on their own, but already that's changing. "In thesis there's a heavier emphasis on people's theoretical questioning," a third-year student told me, and many of the students I spoke with are welcoming it. Third year students complained that there was a lack of theoretical debate, particularly in juries. "Juries are very 'nice,'" one student said. "What you want to do in a project is test your premise and the way it has manifested itself, but it's hard to get some professors to discuss and debate that." The younger faculty member are beginning to expect students to explore a theoretical premise. After one recent review in which the jurors were especially hard on the projects, a number of students approached a juror and said that it had been a great review and not typical of Penn. This professor explains, "We were tearing the projects apart, using the work as a vehicle to talk about what the student was striving for, where the ideas came from." Subsequently, this professor decided that "from now on, I'm disagreeing with every thing a student says in a review, because there's no questioning, there's no discussion. When we did that, the students sat up in their chairs and really enjoyed it."

In an effort to break Penn's "hermetic seal" and broaden the exposure of viewpoints, a number of strategies has been employed, such as "elective week" and "design week." During elective week, which occurs in the fall semester, classes throughout the department are suspended and students sample an offering of electives. "It's an opportunity to get a small dose of a subject that you may not want to spend a whole semester on," said one student, "and it's a chance to try out new faculty."
antos also sees it as an opportunity for the three class years to intermingle, and this coming year it will be school-wide to include the departments of landscape architecture, city and regional planning, urban design, and historic preservation, some of whose students were cutting classes and participating anyway.

Design week takes place in the spring semester and gives students an exposure to architects from all over the world. Last semester’s visitors included Balkrishna Doshi, Hon. FAIA, of India; Alvaro Siza Vieira of Portugal; Boris Podrecca of Austria; Jvenal Baracco of Peru; and Yves LePere of Belgium. In a week-long charrette the students and visitors worked in five groups on a Philadelphia waterfront design along the Schuylkill River. One student mentioned that the fact that each group was led by an architect from a different culture gave each solution different slant. LePere’s group wanted to make a connection between the river and the university by burying the railroad tracks and highways that separated the two. "Yves said, ‘No, this is what America’s all about—railroad tracks and highways—so you should try to use them as a positive element.’"

"I see design week as part of the theory sequence," says Sanss. "It’s the manifestation of a theoretical position in design," and in some instances where design week solutions reflect such separate viewpoints as those of Denise Scott Brown, Maurice ulot, Craig Hodgetts, and Andrew Batey—as they did the year
before—the exchanges can become heated and, for the students, engaging. Although the architecture of last semester’s design week visitors is quite different, Santos observes, “they all talked about the human content and the experiential nature of things, and how the construction is part of the aesthetic.” Some are Penn alumni and many, such as Doshi and LePere, are invited back on a regular basis, adding consistency to the group of visitors. Santos estimates that over the past four years she has invited about 35 different architects from the U.S. and abroad.

The fact that there are a lot of international students at Penn, from such places as Taiwan, China, South Africa, Japan, India, Canada, Peru, and Greece, exposes U.S. students to other points of view. “We had a couple of Australians in our studio,” one American student told me, “and they really added another dimension. A lot of your education comes from talking to your peers about how you’re going to work out a problem. If we all came from Texas, it would be different.”

Summer studios in Paris, Venice, and Ahmedabad allow the American students to be foreigners, for a change. “Studying abroad was such a valuable experience,” one student said. “For me there was no question as to where I wanted to go—it was going to be India. I wanted to go to a different culture to see what a different perspective I’d have on my own culture.” The Ahmedabad studio also allows students from the third world to study and relate to a set of problems that may be much like those in their native country. Studios for international students have also used Philadelphia and Texas’ Rio Grande Valley as “foreign contexts.” In such studios, says Santos, “you’re training students to go to a culture that is foreign to them, and to decode the meaningful issues in that culture that are going to affect the nature of house form, dwelling group, etc. If you find a way of decoding it, it’s extremely useful. You can come back and analyze your own environment in the same way.”

Today at Penn there is a sense of anticipation among the architecture students, especially among those in the first or second year of the program. They can see the benefits of the “alterations and additions” that have been made, and they appreciate how the school’s philosophy and sense of place has not been compromised, but in fact strengthened and extended. Many to me that they now see Penn in a position to enter into perhaps its third great era, in the spirit of Cret and Kahn.
Perky Berth for Charleston's Harbor Pilots

The Charleston (S.C.) harbor pilots must be prepared to guide large container ships at any time in any weather through what can be deceptively tricky channels. They depend on having a reliable dispatcher and a comfortable place to rest, particularly in hazardous weather. Both of these needs are provided for in the new Charleston Branch Harbor Pilots Association headquarters. Designed by Charles E. Menefee III, AIA, of the Charleston Architectural Group, it is a building that has become a cheerful beacon to the pilots, a friendly and safe clubhouse overlooking the sea.

The pilots' house was placed on a crib (a landfill/retaining wall island) connected by a small bridge to one of the town's wharfs. The dispatcher's desk is on the second level looking out over the harbor. Here the east facade is almost entirely glazed; on the north and south sides, the harbor side half of the second floor is windows.

The pilots' house is adjacent to Charleston's historic district, but rather than taking a historicist approach Menefee instead designed a building that would simply "feel good against the historic buildings." He borrowed texture and scale—the building is relatively small (1,150 square feet) and of a size similar to many in the district, is wood sided (pine painted silver-gray) and topped by a cupola. Seen from the north and east facades where porches create an interesting cutout pattern, the building presents an image very different from the traditional Southern house. And the upper porch, just below the roof line, becomes a modern-day widow's walk. Since the pilots' house is used 24 hours a day, 365 days a year, it must be able to withstand hurricane-strength winds. So Menefee "beefed up the framing and secured it strongly to a concrete foundation." Overall, Menefee has successfully met his objective: creating a highly visible object on the waterfront.

Because of the threat of floods, the first floor is placed slightly above dock level. It contains a conference room, entry, storage, and a bathroom. On the second floor, the dispatcher's space and the lounge both have cathedral ceilings that open to the glass-paned cupola, which lets in fresh air and natural light. The other second floor areas—the manager's and bookkeeper rooms—have eight-foot ceilings and are separated from the dispatcher by half-glass walls. The third floor's bunk and storage rooms are reached by ladder, which leads up to the lookout cupola. The interior is paneled in cypress. A companion silvery shed sits further down the pier. Nora Richter Greer
Crisply Geometric Forms
Emerge from Molded Earth

Until this century, man has always shaped the hills and molded the landscape to create unobtrusive architectural forms. "We should revive this tradition and mold rather than construct much of our man-made environment," says William Morgan, FAIA. That is exactly what he did in designing the Scheininger Clinic in Jacksonville, Fla. Rising out of grassy mounds are four cylindrical half-towers that are visually interconnected by horizontal bands. The overall image is an intriguing geometric juxtaposition of circles and lines, combined with a bit of surprise.

The surprise comes from what is inside those cylindrical shapes: Each wall a lush garden. The client had requested two interior gardens. What Morgan did was place the gardens at each corner of a square, one-story building and surround them with masonry walls to provide privacy and security as well as to "remove the visual distractions of the nearby traffic," in Morgan's words. Each garden forms a perfect circle; the use of plexiglas allows for the window walls to be curved without adding an exorbitant expense.

Each cylinder and two of the sides are bermed to "insulate airconditioned spaces in the clinic and to minimize temperature fluctuations in the gardens," Morgan says. The two sides that are not bermed become the entrances: one for patients and the other for staff and deliveries. At these entrances, the exterior walls are cedar topped by a white masonry band.

Of paramount importance in this semi-underground building was the need to bring in natural light. Painting the cylindrical walls white increased their reflectivity. As the hours pass, these white walls provide a constantly moving light show. Says Morgan, "I love the idea of light and the movement of light during the day." To hold down the solar heat gain, Morgan recommended transparent screens (ones "like dense insect screens," in his words) that would be drawn across the top of the cylinders. But, as Morgan says, "the owner elected not to use them."

Morgan believes that the gardens' plants combined with the large oak trees located on the site probably provide adequate filtering. In addition to the gardens, nine symmetrically placed skylights bring daylight into the center of the building.

Inside the 3,666-square-foot clinic (the gardens are an additional 2,232 square feet), the patient waiting lounge is on the south end, the doctors' offices on the north, and the support functions in the middle. On the west, there is a small demonstration room complete with cooking facilities (dietary counseling is offered at the clinic). N.R.G.
When Orange County commissioned Architects Design Group of Florida to master plan and design the 33rd Street Correctional Center in Orlando, the firm interviewed prison inmates in small groups, without officers present. According to Keith Reeves, AIA, the men talked about three main things: "that they were innocent; that they disliked steel intensely—they said it sapped their strength; and that they hated the ‘damn’ color of the creams and institutional green that are still being used, even in today’s otherwise state-of-the-art correctional facilities.”

ADG gathered research data on color preferences and the psychological effects of color (finding little on the use of color in jails), became convinced of its impact, and designed the Orlando jail with chromatic emphasis. Color concepts employed are fairly simple. Blue, believed to have a calming effect, is used in inmate day rooms. Red, which increases brain wave activity,
prolongs the perception of time, is used in visitation spaces. ous shades of orange—tending toward peach, salmon, and m—are found in dining areas because they seem to enhance ite. And yellow, which makes building elements seem less sive, tints heavy window mullions.

ill being built in phases on a tight site, the prison eventu-will house more than 2,000 inmates in all security classifi-ions, plus support facilities. Photos on these pages show part the latest completed phase, a typical housing pod of 16 cells e medium security section. Cells, arranged on two levels in each pod, have horizontal windows (above) shaded from sun. Accent colors individualize the pods, which are ori-d toward a central control space through yellow-mullioned owls (above right) and are carpeted to reduce noise and its illary, aggressiveness. The ceiling also has an acoustical treat-

recessed area of medium-security housing block offers protection for inmates at edge of exercise yard. Axonometric is four 16-cell, two-story pods at far right next to vertical e of control areas. Above right, fuchsia-accented pod.
Prison officials were slow to accept some colors, like fuchsia, Reeves reports, but have become color advocates.

Another recently completed part of the complex is the central energy facility (above). Here ADG vividly accented the exterior and turned the interior into a rainbow of OSHA colors. An unforeseen result: Pipefitters and electricians, knowing their work would compromise a technicolor display, here exerted extraordinary workmanship. Allen Freeman
In the early 1900s the north end of Columbus, Ohio, was a thriving industrial district, due in part to its proximity to the city's railroad yards. But beginning in the mid-'50s, more and more of the businesses moved out, leaving the vacant warehouses to deterioration and demolition. Now, only a handful of those buildings remain, with the most delightful one being the home of Trott & Bean Architects.

Trott and Bean's office occupies the second floor of what once was a plating and silvering plant (the firm leases the first floor to other businesses). While basically a warehouse, the front facade has seven bays that are separated vertically by brick strips. In the renovation, the symmetry of these bays was strengthened. The use of plate glass produces a significantly crisper image. And a "second layer of classicism," in the architects' words, was achieved by the use of iron grilles, which take the shape of paneled windows superimposed over the plate glass.

Inside, a broad stairway leads up to the second floor offices. Here, much of the old was retained. The wood floor was preserved, the mechanical systems were left exposed, the high ceilings were maintained, and the brick wall was left showing on the one party wall (the east side), with the others being insulated to conform to building codes. Perhaps the most appreciated remnants from the past are the two skylights and the large

Above, in the renovation the symmetry of the seven bays of the front facade was strengthened by the use of plate glass over which are placed 'classical' iron grilles.
and numerous windows that let in an abundance of natural light. An additional skylight was put over the lobby, and in the summer a nylon mesh screen is hung over two of the skylights because of the glare on the drawing boards. Sitting under the new skylight is the lobby, which is separated from the main drafting room by a curving wall that makes a semicircle. Inside that semicircle are conference rooms and at the front corner the office of Richard Trott, FAIA, and James Bean, AIA. Along the east wall are additional offices and at the rear the storage and services areas, as well as the bathrooms.

The plush office shows little evidence of the playfulness of the exterior except in the five bathrooms. Each expresses a different humorous metaphor. Two are obvious plays upon semantics—the throne and the can. The throne room is a postmodern extravaganza; the can is a more literal interpretation, with walls of corrugated galvanized metal industrial siding. For the traveler the Sunoco room offers the typical gas station sparseness. And for the more sophisticated are the polo and tuxedo rooms. Suggesting an exclusive gentlemen's club, the polo room has suede walls and a marble lavatory. The tuxedo room is more sprightly with white polka dots on black walls and low-voltage sparkle lights lining the mirror. N.R.G.
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Lettered View
Architecture

Archabet: An Architectural Alphabet, photographs by Balthazar Korab. (The Preservation Press, $12.95.)

There is not much to this little book, 26 halftone photographs and 26 briefitations or epigrams. The photographs ord mostly the commonplace, and the ds are quite familiar. Indeed, they ude architecture's most cherished hés. But there is much here to admire little that I would change.

he book is an invitation to discover the alphabet in the built environment. Let ters, some capitals and some lower case, lurk in building forms, doors, gables, ironwork, pavement patterns, etc., to be found in photographs reproduced page size (8x8½ inches). All are by Balthazar Korab and selected by Korab and editor Diane Maddex. This being a book published by Preservation Press, the subjects tend toward the older and/or indigenous, the most recent of which is SOM's Chapel of the Air Force Academy, whose roof form harbors a quantity of Ws when viewed from the side.

Opposite each photograph is a single quote that relates in some way to the image (not the letter). The tenuous relationship between image and quote proves provocative in some cases, perhaps altering one's concept of the chestnuts. For instance, "less is more" is illustrated not by a Miesian box but by a simple farm house and barn.

Besides Korab and Maddex, credit should go to Mark Alain Meadows and Robert Wiser for the most handsome of book designs.

Perhaps those who will most appreciate Archabet are the wise and the young. Others may not discern its beauty nor relish its fun. Allen Freeman

Books continued on page 87
Making more elevators makes Dover No. 1.

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DOVER ELEVATORS
This handbook is an introduction to exciting new art, science, and detection of building material diagnosis. Twelve chapters give a background on the physical nature of materials, the definition of building disabilities, and the explanation of moisture in all its forms and fountains. Four subsequent chapters cover masonry, wood, metals, and concrete as materials and as component elements of a building's envelope and structural system. These chapters review the characteristics and limitations of these materials, providing a use-historic overview of past use, practices, and applications that may be excerpted in existing buildings. Check lists and tables for evaluation of these materials add an important dimension.

The subject of the book is "building," "materials" evaluation. The author develops the concept of diagnostics in principle and expands the process with general methodology for building assessment. There are lists of technical factors, suggested documentation, notations and structural investigation kits, descriptions of common failures of materials that can be visually observed such as paint failure, concrete cracking, or corrosion, and other useful information such as notes on pressure differential and water infiltration.

With the overdue interest in the stoning use of buildings (AIA has been issuing a 25-year award for sometime now) I list the new business architectural opportunities in rehabilitation of existing kiding stock, this book fills a need. Here is a necessity to look at building materials in place. We must learn how to use building materials as laboratories, providing feedback information about good or bad building practices and techniques—just to restore and rehabilitate existing buildings, but also to design and build new buildings. Most building failures are not the result of a lack of information, but nonapplication or misapplication of available information. The final 80 pages of text may well be the most significant section of the book. Apeters deal with a potpourri of subjects usually not discussed in books about building materials and methods, such as cleaning of exterior surfaces, processes for building assessments, and test thods for the evaluation of existing chemical systems. In the last chapter, two excellent articles—a case study from John Yanik, AIA, about diagnostics to and more than the obvious interaction of ter leakage, structural settlement, and decay, and an essay by John Potas, FAIA, on the unspoken aspects of modern construction practices—nudars and materials that are time bombs waiting to go off. He correctly points to serious gaps in our knowledge of material performance, stating that we do not seem to want to learn from the experience of others and pointing a finger at the serious lack of technical competence in the architectural profession.

I am pleased to see in this book old but forgotten friends such as the table of "Heart Wood Decay Resistance." But what happened to the table or discussion about wood grain and the advantages of edge grain wood for some applications? There are numerous omissions. There is almost nothing about roofs or foundations, two of the most common building failures. The section on metals, particularly as an architectural finish material, is superficial. It would be meaningless to go on and on. The book also suffers the problem of timelessness. For example, some of the referenced organizations have changed their names or have moved. More serious is that by the time the book was published, some of the "best available" recommendations are now recognized to have flaws, or even may be contradicted. A case in point is the suggested use of glass bead peening to clean bronze. It now appears that this cleaning method is too harsh and removes the hard surface of the metal, exposing a softer, more irregular inner surface.

The section on "Reference Sources" is good, but the large body of literature about inspection and on building failures and material performance is not noted. The bibliography is remiss in not including excellent books on these subjects, especially those published in England and now available in the U.S. Another great disappointment is the book's abbreviated index. Having once read about a particular subject, it may be difficult to find it again.

In spite of its shortcomings, the book packs in a lot of information about evaluation. Useful as an introductory manual for students, it is also a good primer for practitioners who want to wander into building inspection and evaluation, and it is a quick reference or refresher for the active diagnostician. I recommend buying the book and also a box of index tabs, thus making it an easy to use reference on the desk of anyone involved in understanding buildings. HUGH C. MILLER, AIA

Mr. Miller, chief historical architect for the National Park Service, is actively involved in the assessment of existing conditions of buildings and the diagnosis of their problems.

Architecture, Poetry and Number in the Royal Palace at Caserta. George L. Hersey. (MIT Press, $37.50.)

George Hersey of Yale University, with the assistance of MIT Press and the College Art Association's Millard Meiss publication fund, has given us a beautiful book about a little known masterpiece of 18th century Italian architecture. The Royal Palace at Caserta, designed by Luigi Vanvitelli for Bourbon King Carlo of Naples (later King Charles III of Spain), was a joint work of architect and client, both influenced by the philosopher Giambattista Vico. The building, isolated from Naples physically and stylistically, embodies the sense of grandeur, formality, and sheer power that was the Bourbon principle of heroic absolutism. Symmetry marks the building, the gardens, and the rhythm of their components. An arched entrance punctuates the rusticated base at center and again in the middle of each wing. The central temple front divides and unites the two regulated wings, measuring uniform according to geometric planning.

Caserta as planned and developed became not just a symbol but actually a taxonomic model of absolutism. It was the perfectly symmetrical iconographic structure toward which the French palaces of the Louvre plus the Tuileries had been growing organically under the supervision of a series of architects and programs. Seventeenth century Versailles had continued this evolution, but in its development had put political organizational demands above geometry. The palace at Caserta holds fast to utter symmetry while manifesting architecturally functioning enlightened despotism.

On the plain north of Naples, the palace has an approach of almost two miles of river road through gardens marked by sculptured fountains, waterfalls, and pools in an elongated vertical axis. The main side of the palace is on the garden, as witnessed by composite pilasters between the window banks all across, whereas the town side of the building has only six columns at each corner pavilion and six at the ceremonial entrance. The interior, rich with sculpture and paintings, brings to life the mythic poetry so essential to the philosophy of Vico. On the one hand, it is heroic poetry; on the other, Hersey compares it to the Pentagon (Bergstrom & Witmer, 1943), as it, too, was designed in part as an office building.

Those of us who have enjoyed visiting 18th century palaces in Vienna, Prague, or in Leningrad but have not included Caserta have a treat in store in studying Hersey's interpretations and in savoring his refreshing style of architectural writing while planning a trip to this site. Twenty color plates and hundreds of photographs, maps, drawings, and plans serve to guide us in following the poetic myths and the architectural order of mega-political Caserta. SARA HOLMES BOUTELLE

Ms. Boutelle is founder/director of the Julia Morgan Association.

Books continued on page 88

ARCHITECTURE/AUGUST 1985
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Large, Small Firms Agree: Computer Architecture Helps Firms Compete, Improve Profits

Whether it is a small, PC-based drafting system in a four-man architectural firm, or a sprawling mainframe in a 400-person office, the computer is becoming the dominant architectural tool. Computer users are reporting dramatic benefits that include better designs; faster, more accurate drawings; more persuasive client presentations; speedier reports, and smoother work flow.

What is more, computerized architectural firms say they are getting new types of jobs that did not even exist before the advent of the technology.

One early innovator in CADD systems was Albert C. Martin and Associates, Irvine, CA. "We got into computer graphics about nine years ago, when the only programs available were very primitive," says Eugene McLean, the firm's design director. The firm has made its own software improvements, most of which have been incorporated in Arcad's Architectural Interactive Design System (AIDS).

Currently, Martin's 22-person Irvine office runs its CADD software on a six-terminal Digital VAX mini-computer. The firm's Los Angeles office uses two VAX computers, which support 20 graphics terminals.

"Initially we were attracted to CADD because we hoped it would reduce our design and drafting costs," McLean says. "But we found that the computer gave us an even more important benefit. It improved the quality of our work. Our drawings are more accurate, and they're easier and faster to do, which gives us freedom to explore design alternatives."

Time and cost savings have been substantial. McLean estimates CADD allows architects at the firm to complete twice as many projects—and twice as many billings—as architects using manual techniques.

The firm also uses computers to create spread sheets, plan work load and time flow for projects, develop charts and graphs and for word processing.

Another West coast firm that has embraced the computer revolution is Kaplan/McLaughlin/Diaz, San Francisco. The 200-person firm uses a combination of large CADD systems and PCs to handle all phases of project management and facilities planning.

Kaplan/McLaughlin/Diaz uses IBM ATs to run Primavera Project Planner software. "Project management—especially large project scheduling—is a process that has never lent itself to quantification," says Phil Bernstein, the architect who coordinates computerized project management for the firm.

The firm has been using the software for project sequencing for hospitals, creating schedules to manage the design and construction process. "This is a big experiment for us," Bernstein says. "But we've been able to offer this as an additional service to our clients, and the service is making money."

Lester B. Knight & Associates, Inc., Chicago, recently demonstrated that computers can help architects score points with planners, potential project investors and the public as well. When a group of private developers asked the 400-person firm to design a domed
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ON THE INFORMATION FRONTIER

Circle 29 on information card
Large, Small Firms Agree

stadium complex for the city, architects used a Sigma III CADD system to develop a complete set of images depicting the facility as it would appear from various points in the city.

"From those images, we made about 100 slides, which we worked into an elaborate slide presentation," explains

Personal computer or mainframe, the computer is becoming the dominant architectural tool

Fred Richter, director of architectural design. "We were able to take very preliminary designs and were able to graphically demonstrate the total impact of the facility on the area."

The Knight firm has screened the slides before city planners, community groups, potential financial backers and to the teams that may ultimately use the facility. "People's reaction has been excellent, in terms of understanding the elements of the proposal," Richter says. "The more people can see the reality of a design, the better. Using CADD in this way really puts designs in a better language for the lay public."

Jim Lyman, managerial associate for Knight, says computerized architecture is creating new types of jobs. "From a marketing point of view, we have been able to propose projects we've never been able to handle before. Several of the projects we've seen have consisted entirely of creating a data base or producing a design program," Lyman says.

While some large firms are using computers with spectacular results, smaller firms are computerizing too, with equally rewarding benefits.

Sam Engel, Jr.'s four-person firm in Davie, FL, purchased an IBM AT and AutoCad software late last year. "We had more work than we could handle. I wanted to go after some of the larger jobs, but I didn’t want to increase my staff size," Engel says.

Computerization provided the answer. "The system is great for the kind of repetitious drafting we do on townhouse projects. I think that now I'm going to be able to land some of the larger jobs, as I demonstrate the accuracy of the drawings we can produce, and the ease with which those drawings can be modified."

What advice do these architects have for colleagues who are considering computerizing their own operations? They offer three guidelines:

• Decide what you want the computer to do before you shop for a system. "You have to have an understanding of your own production process and where you want the computers to fit in," Bernstein says. "It's a mistake to go out and buy the sexiest equipment and then open the boxes and say 'Now what?'"

• Select a system that's neither too small for your needs nor too large for your budget. "We were over-cautious when we purchased our hardware," McLean says. "We didn’t foresee how much the demand for the system would grow."

Engel agrees: "Don’t buy a toy, only to find out it can’t do what you want it to do."

On the other hand, over-investment can be a mistake too, architects say. "Don’t mortgage your firm to get into CADD," Lyman says. "If you're a smaller firm, start with a PC-based system and add capability as you can handle it."

Firms are getting new types of jobs that did not even exist before the advent of computers

• Research your options thoroughly before you buy. "I went to some architectural computer shows, and the selection was just mind-boggling," Engel says. "But I think that research was important, because it made me realize that there is not just one or two available systems, there are 70 or 80."

Computer Advertising Supplement S5
INTRODUCING CADVANCE: YOU’LL PICK IT FOR ITS LOOKS. BUT RESPECT IT FOR ITS INTELLIGENCE.
As Architectural Computer Market Heats Up, Vendors See Acceptance Growing

Like it or not, architecture is becoming a computerized profession. Spurred by increased competition for contracts, a growing number of once-hesitant architectural firms are now turning to computers for everything from word processing and work-flow scheduling to advanced CADD and complete project management.

That is the consensus of vendors in the architectural computer market. They are responding to increased demand with innovations in hardware and software.

The computerization of architecture is having a profound impact on the profession, these vendors say. Computers are not only allowing firms to produce better designs, faster drawings and more attractive proposals. Computers are changing the very concept of architecture itself.

"There's definitely more activity in the architectural computer market," says Martin Stein, director of product management for CalComp. "Large firms are experimenting with combinations of PCs and larger computers. Smaller firms are buying more advanced systems than before, and the really small firms are buying PC systems like they're going out of style."

Bob Murphy, vice president of marketing and sales, T&W Systems, Inc., agrees that the architectural market has seen a flurry of activity.

When you lose a job to an architect with CADD, the point is driven home: McKenzie

"The innovators have brought out a lot of competing, low-cost CADD systems," Murphy said. "Now there's a shakeout, as architects discover that some of these systems aren't what they expected."

Competition leads the list of motivations to computerize. "The architectural industry is increasingly competitive," says Scott Drushella, director of product marketing for Timberline Systems, Inc.

"Architects have to constantly monitor cash flow and project performance. In addition, they need to increase their marketing capability." Computerizing operations is the only way to keep up with these demands, Drushella says.

Client pressure forces more architects to use computers in design and drafting as well. "There are still some architects who will never, ever use a computer," says Peter Clifton, product manager for Wiley Professional Software. "But more architects are realizing that they must look into new products in the computer field, and their clients are demanding this of them as well."

Ronald A. McKenzie, product marketing manager for Bruning's architectural division, adds, "When you lose a job to an architect with CADD, the point is driven home."

The fact that many government jobs now require that drawings be submitted on CADD systems further adds to the pressure to computerize, McKenzie says.

Falling prices for hardware and software are also luring some firms into computerization—especially smaller firms. "The two traditional barriers preventing small firms from using CADD were price and the difficulty of using the software," says Mike Ford, vice president of marketing and sales for Autodesk, Inc., makers of PC-based AutoCad software. "With the price of PCs, plotters and other peripherals coming down, a small firm can buy all the tools it needs to do CADD for $12,000."

An important reason that CADD is becoming more affordable is the advent of extremely powerful PC-based CADD systems. Murphy says that new PC CADD systems can handle two-dimensional drafting almost as well as larger systems can.

"The major cost factor for an architect is producing drawings," says Clifton. "With a PC-based CADD system, a small firm can get four or five times the productivity possible with manual techniques, without spending a lot of money on higher-level systems."

One testimony to the importance of PC-based CADD systems is CalComp's acquisition of the PC architectural software division of Personal CAD Systems.

But David Skok, president of Skok Systems, Inc., thinks the comparisons between PC-based CADD systems and more powerful systems is misleading. "Many architects are still confusing $2,000 PC-based drafting programs..."
Market Heats Up

with design management systems," says Skok, whose firm produces turnkey work stations.

"The financial benefits of computers go beyond simply reducing drafting hours," Skok continues. "The right system can provide both a design tool and a management tool and actually expand the scope of an architect's value to his client."

CalComp is seeking to bridge the gap between PCs and larger systems with its new Cadvance software for the IBM AT and XT. "With Cadvance, a designer can do simple work on a PC, then transfer that information to the System 25 database," Stein says. "CalComp is seeking to provide a continuum of work stations, so that people can choose the right power for the right task."

Perhaps the most important aspect of the growing use of computers in architecture is the way technology is changing the very concept of the profession. "Architecture is becoming an information business, and architects should be selling themselves as an information service," Skok says.

Otto Buchholz, product manager, architecture and building engineering, Computervision Corp., agrees, adding, "With automation, constant communication of design information from the initial stages becomes possible, allowing for more client input into the final design solution. Integration of client and architect ideas promotes a unified design team approach.

"By evolving a 3-D model from initial schematic massing to a detailed description, the system records all design decisions and keeps track of all data used to make those decisions. The client thus has an historical record of the project as built and continuing through the life of the building, taking into account additions and modifications," Skok says. He believes that building and maintaining this database ought to be an essential part of the services an architect offers.

McKenzie, himself an architect, makes the same point more bluntly: "In the future, we're going to see information-rich architects and information-poor architects. The firms that use computers will be information-rich, and the firms that still resist the technology will be information-poor."

Despite such predictions, Murphy maintains that many firms still are not making full use of the systems they own. "There's a pain threshold that people have to go through with CADD, and most firms aren't crossing it," Murphy says. "Instead of fully integrating the computer in their practice, they're still playing with it."

"The advent of better, lower-cost communications technology will allow for faster sharing of architectural information with all disciplines involved — mechanical, structural, architectural," notes Buchholz. "The result is more in-depth investigation of alternatives and, ultimately, a better product."

"Instead of simply producing drawings, architects ought to be building a data base for each project, starting from the initial design—including schedules and bills of materials—through the recording of the project as built and continuing through the life of the building, taking into account additions and modifications," Skok says. He believes that building and maintaining this database ought to be an essential part of the services an architect offers.

Most of the vendors interviewed agree that customers in the architectural computer market are showing more understanding and less fear of the technology. "The customer is really becoming very, very sophisticated," says David Lutes, vice president of sales, Graphic Horizons. He credits the growing number of college seminars on CADD with contributing to the new computer-savvy among architects.□
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Users. You can’t live with them, and you can’t live without them.

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Eliminates Common Problems
Creating a user group will not be the total solution, but the group will help avoid some common problems in computer operations.

• The employees directly responsible for computer operations will not be making an isolated purchase with no user support.
• The computer system purchased or developed will not be a specialized tool with limited application within the firm.
• The users will not be unhappy with the system and the computer staff’s inability to find a solution.

5 Members Is Ideal
When you set out to form an in-house user group, remember that five members is ideal. You do not want a big group because it is too difficult to foster the essential active discussion in large groups. If necessary, each member of the user group may represent the needs and concerns of other large groups of users in the organization.

Usually, you will choose one person from each discipline in the firm. It is best to have someone who does the work and understands the details so they can take a broader view of solutions to problems as they arise.

Establish a Format
Establishing a format for user group meetings is important. Each meeting should incorporate a general discussion. Together the group should draft a statement of problems requiring action. An action plan can be created within the meeting, if time permits. Depending on the severity of the problems and time required to map out a solution, the committee may assign the task of developing an action plan to a group member.

A much longer period of time will be required for the group to complete the Implementation Phase. Typically lasting four to six months, the Implementation Phase may require meetings every two weeks with added meetings held when major milestones occur. The implementation will require a detailed orientation of staff to the use and capabilities of the computer. Finally, but on an open-ended basis, the user group will enter the Operations Phase. This is the main phase, during which group members will form lists of user problems and alternative solutions to be implemented by the next user group meeting.

Charles "Ched" E. Reeder is a founder and principal in The Computer-Aided Design Group, Marina del Rey, CA, with a background in computer-aided design in space planning, interiors and facility management. In addition to consulting work that includes establishing in-house user groups, he regularly teaches at the Southern California Institute of Architecture and lectures to professional organizations.
CADD Hardware for Smaller Firms

Sigma Design has released the Sigma IIIa system, a new hardware configuration for small- and medium-sized CADD users. Sigma IIIa incorporates many of the features of the more powerful Sigma III, including a standalone Motorola M68010 microprocessor and the UNIX operating system. Software features include integrated 2-D and 3-D graphics, relational database management, project management and architectural application menus. The introductory hardware and software package is priced at $58,700.

Circle 114.

Graph/Net Software for IBM PC

Graphic Horizons, Inc., has adapted two of its Graph/Net-compatible programs for the IBM PC. Data/Net is a multi-purpose data management system that allows users to produce quick, accurate reports detailing project's square footage and estimated construction and outfitting costs. Opti/Net assists in the development of alternative bubble and block diagrams and evaluation of alternatives against optimal criteria. The adaptation of these two programs allows users to run them on an IBM PC.

Circle 111.

HOK Announces New Computer Spin-Off

Hellmuth, Obata & Kassabaum, Inc., has announced the formation of the HOK Computer Service Corp. (HOK/CSC). The corporation is marketing a package of software that was designed in-house for use by HOK architects, facility programmers, engineers and interior designers. The new company also will sell DEC's VAX series of mainframe and super microcomputers, as well as peripherals from other sources, as turnkey systems. HOK/CSC currently markets professional design systems, which match 3-D graphics capability to a relational database. Facility management systems are also being marketed.

Circle 101.

New Workstation from Auto-trol

Auto-trol Technology has introduced the Advanced Graphics Workstation/70 (AGW/70), a system with three times the processing power of the original AGW without a significant increase in cost. The system makes use of a 32-bit Apollo bipolar bit-slice processor. The modular system can be placed on existing desks or tables, allowing operators to customize their work environment. In addition, Auto-trol has enhanced its Series 5000 Advanced Graphics Software for architects and engineers. New item selection and manipulation features allow users to manipulate whole objects instead of lines.

Circle 107.

New Software for Data General

Data General Corp. has announced the availability of independently produced A/E software packages for its DS/4200 32-bit standalone graphic workstation. Easinet, developed by Sys Comp Corp., is a 3-D design program, containing a relational database for integrated design, analysis and drafting. Also available for the DS/4200 will be the Sys Comp application library, including more than 70 engineering programs that allow users to compare alternate design and construction strategies quickly through interactive menus, supplier says.

Circle 103.

Multi-User Financial Management

Business Information Systems, Inc. has announced the new multi-user version of ACE, an integrated financial management system for architects, consultants and engineers. ACE functions include project management, timesheet, billing, budgeting, accounts receivable/payable, consultants payable and general ledger. The software is available for use on most mini- and microcomputer models.

Circle 108.

Timberline Expands Aepex

Timberline Systems has added a custom report writer module to its Aepex software package for A/E firms. Package allows automated project management, billing and reports. Other package modules: architect/engineer, general ledger, payroll and accounts payable. The five-module package is priced at $5,790. The A/E module is available singly at $2,800. Aepex runs on IBM PC/XT and AT, Texas Instruments PC, DEC Rainbow and AT&T PC 6300 computers.

Circle 117.

Arcad System Uses Microcomputer

Arcad, distributor of the Architectural Interactive Design System (AIDS), has announced that it has expanded its CADD system to utilize the Digital Equipment Corp. 32-bit MicroVAX I and the VAX 32-bit mini-computers. A complete turnkey system, including a MicroVAX I micro-computer, a graphics display terminal, a pen plotter and the Arcad/AIDS software, can be purchased for $47,000.

Circle 105.

HP Lowers Plotter Prices

Hewlett-Packard Co. has lowered the prices, effective immediately, of its HP7580 family of drafting plotters by an average of 25 percent. HP 7580B will be reduced from $13,900 to $9,900; HP 7585B from $16,900 to $12,900, and HP 7586B from $21,900 to $16,900. The price reductions were motivated by the downward trend in prices of CADD systems and fast growth of CAE (computer-aided engineering) workstations and personal computers in today's market, the vendor says.

Circle 100.

Product Reviews
Converts Paper Drawings to CADD

CAD/Camera™, a product that allows instant digitizing of existing paper drawings into AutoCad drafting system has been introduced by Autodesk, Inc. The software automatically identifies, extracts, connects and rectifies lines from an original image, vendor says. CAD/Camera runs on an IBM PC with a Datapoply scanner or on the Wang PIC system. The software is priced at $3,000. The complete CAD/Camera system, including computer, scanner and software, costs less than $25,000, according to vendor.
Circle 106.

Combines CADD, Office Management

Computervision Corp. has introduced Personal Architect, a PC-based system that performs both CADD and architectural office management. The software package uses artificial intelligence techniques to define a building in actual volume and construction technology. It allows users to automate design development, documentation, construction specification, project management, cost accounting and record-keeping functions. The system includes an IBM PC/AT with 512K of RAM, and five software packages: Architectural Design and Drafting, Advanced Architectural Drafting, Schematic/Urban Design, Architectural Drafting and CV/CFMS.
Circle 110.

Project Management Software for PCs

Harper & Shuman, Inc.'s new Micro/CFMS is a fully integrated project control/financial management software package designed for smaller A/E firms. Micro/CFMS includes such applications as payroll, project budgeting, time utilization, accounts payable/receivable, general ledger, automated billing and workload forecasting. Software operates on IBM and Wang PCs, as well as the DEC Rainbow series.
Circle 112.

Facilities Management for Prime

Prime Computer, Inc., has announced its Facilities Management+ (FM+) software line, which consists of three products. FM+ Planning contains a space projection module. It also has a vertical stacking module. FM+ Tracking contains an equipment management module for inventory maintenance, as well as a project budget module. FM+ Leasing helps users identify optimum spaces for potential lessees. Software runs exclusively on Prime 32-bit computers.
Circle 104.

Five Computer Aids for Architect

McDonnell Douglas has announced Architectural Pak, five user aids that supplement the company's CADD system. Included in the $4,000 package are Architectural Road Map, which helps the user develop drawing files, window commands and parameters; Architectural Methodology; Specification Interface; Facilities Library of standard furniture and fixtures, and four application menus. All symbols in the application menus have imbedded CSI codes and work in conjunction with Specification Interface.
Circle 102.

CADD Software for New PCs

VersaCad Advanced is a general-purpose CADD program introduced by T&W Systems for more powerful personal computers. More than 100 commands, along with symbol libraries, geometric calculations, bill of materials and database extraction capabilities, are available with the software. VersaCad Advanced is available for IBM PC/AT and XT, Tandy 1200 and 2000, AT&T 6300, Texas Instruments Professional and Hewlett-Packard Series 200.
Circle 116.

Two Additions for Arpian

Skok Systems Inc. has added an Applications Customizer and an Applications Library to Arplan, its 2-D drafting and design package for the Artach CADD system. Applications Customizer allows users with no programming experience to create their own special drafting applications, vendor claims. Applications Library includes a set of three pre-written groups of ready-to-use drafting applications: architecture, site/structure and ceilings/notes.
Circle 115.

CalComp Introduces Cadvance

CalComp's recently acquired personal systems unit has introduced Cadvance, a PC-based software package that vendor says offers design capabilities previously available only on high-end CADD systems. Cadvance employs programmable macros. The software contains many nested commands, allowing the user to zoom and pan the image, or change grids and active layers, without leaving the draw command. The software runs on the IBM PC/AT or XT.
Circle 109.

S22 Computer Advertising Supplement
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Letters from page 6

So we must listen to all this prattle from so many people who haven’t really done anything significant, trying to rationalize eclecticism and proselitizing from anything and everything and calling poor copies of Corbu and Gropius high-tech.

At a time when we are concerned about “value” architecture, i.e. convincing the public that what we do is worth more money, it seems that we are producing the wrong product. Unless, of course, we’re really trying to get the business away from the set designers and interior decorators. After all, they are really better trained to copy the past than we are: they are not restricted by structure, engineering, longevity, liability, or a sense of conscience.

Are we really worth much to society? That is the question. If they won’t pay us, they are probably giving us their answer.

The medium is not the message in architecture. It’s the product that counts!

Robert E. Jones, AIA
La Jolla, Calif.

DEATHS

P. Atchison, AIA, Denver
W. J. Bain Sr., FAIA, Seattle
G. C. Barngrover, AIA, Denver
L. F. Baum Jr., AIA, San Antonio, Tex.
Dallas Benton, AIA, Birmingham, Ala.
Patrick Blouin, Montreal, Ontario
D. L. Bockius Jr., AIA, Seattle
J. O. Burk, AIA, St. Louis
Robert O. Burns Jr., AIA, New Orleans
F. A. DeSantis, AIA, Boca Ratn, Fl.
John R. Edwards, AIA, Mandeville, La.
R. L. Fields, AIA, Washington, D.C.
John S. Glorioso, AIA, New Iberia, La.
Walter H. Hill, AIA, Pullman, Wash.
R. M. Jones, AIA, Houston
I. C. Keelings, AIA, Paducah, Ky.
W. A. McAlister, FAIA, Agana Guam
Guam
E. Mok, FAIA, San Antonio, Tex.
Thomas E. Schiesser, AIA, Mt.
Prospect, Ill.
John C. Schwartz, AIA, Kalispell, Mont.
Frank R. Sleazak, FAIA, Kansas City, Mo.
William R. Tipton, AIA, Pasadena, Calif.
William Wilde, FAIA, Denver

Walter Wagner Jr., FAIA, Editor

Walter F. Wagner Jr., FAIA, first joined the staff of Architectural Record in 1965 as executive editor. Two years later he became editor-in-chief, a position he held until his death July 6. He was 58.

A graduate of MIT with two degrees in business administration, Wagner worked as a staff editor for McGraw Hill’s Factory Management and Maintenance (1950-57), as managing editor of Time-Life’s House and Home (1957-64), and as editor of McGraw Hill’s Popular Boating (1964-69). He also edited seven McGraw-Hill books about architecture.

Wagner, twice awarded citations for special advice by the Society of American Registered Architects and elected an Institute Fellow just last year, made many speeches on behalf of the profession served on several AIA committees. “... Walt was a vigorous champion of architects, architecture, and the Institute,” commented AIA Executive Vice President Louis L. Marine.

BRIEFS

Design Competition Entries Sought.
The San Diego Architectural Club is sponsoring a competition to design the second phase of the Hotel Intercontinental complex in San Diego. A prize of $250 will be presented to the first place winner, and honorable mentions will also be awarded. The fee for registration is $1 and Oct. 21 is the deadline for receipt entries. For further information contact: The Completion Competition, San Diego Architectural Club, 2171 India St., San Diego, Calif. 92101.

Friends of Kebyar

Friends of Kebyar is an organization that was formed three years ago for architects and others who studied with Bruce Goff and were influenced by his work, or who are interested in the architecture of Goff and his associates (see June, page 36). The Balinese word “kebyar” refers to the “process of flowering,” according to the group and was Goff’s descriptive name for a school of creative arts and architects that he hoped to realize before his death in 1982. Membership in Friends of Kebyar is tax deductible. Benefits include a publication, membership in an annual symposium, and lectures. Those interested should write to: Friends of Kebyar, 7430 South West Canyon Drive, Portland, Ore. 91225.

Nominations for Loeb Fellowship.

Harvard’s graduate school of design is seeking nominations and applications for the Loeb Fellowship Program in Advanced Environmental Studies for the 1986-87 academic year. Loeb Fellows are mid-career professionals who have shown leadership in architecture, landscape architecture, urban planning and design, and related fields. The deadline for applications is Nov. 1. Contact Karin Gil, HGSD, 48 Quincy St., Cambridge, Mass. 02138.

Call for Design Competition Entries.

AIA’s architects in industry committee and Florida A&M’s school of architecture are sponsoring a student design competition that deals with the decentralization of manufacturing. The deadline for entries is Dec. 15. For further information contact: Friends of Kebyar, 7430 South West Canyon Drive, Portland, Ore. 97225.
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Circle 44 on information card

ARCHITECTURE/AUGUST 1985 117
Furnishings

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

Artist-turned-furniture-maker David Best views his new craft simply as another artistic endeavor. Working out of Petaluma, Calif., what he produces are highly chromatic pieces of sculpture. But while his painting, sculpture, and ceramics "dealt with the pain, fear, or dark side of life," in his words, his furniture suggests the whimsical, witty, playful. The 24x24x24-inch end table (1) has a white laminated square top resting on four slender legs that have multi-toned laminated surfaces. Two cross pieces break the symmetry of the legs, and from underneath the table top a blue slat gracefully curves downward and precariously balances a black ball roughly the size of a tennis ball. The same techniques are used in a coffee table (2) commissioned by a New York City artist. Here a glass table top allows for a three-dimensional view of the jazz going on underneath. Again, multicolored laminated wood pieces support the top, this time with another ball inserted between two pieces as well as a laminated red disc. The coffee table is 24x65 inches.

Manufactured by Lazin Lighting Inc. of New York City, the Mackinaw hanging lamp (3) has a textured white or charcoal gray baked enamel or brushed aluminum shade that reflects light upward from the two 100-watt bulbs. It is hung by a very thin, adjustable cable around which spirals the power cord. From the Gallery at Workbench's show "Furniture Strangeways" is John Cedarquist's drawing board (4). Made of ash and birch plywood, the 59x59x18-inch drawing board has inlays of embuia. A glass drawing surface creates the illusion it is boardless. Skipper lamps (5) are available in floor, wall, and ceiling models in white, black, and red colors. Manufactured in Italy, the tip of the lamp measures one-eighth of the pole's length, contains the light source, and can be tilted in several positions. Designed by Gastone Rinaldi, Thema's Ody chair (6) has an oval tubular steel frame that gently cradles a polyurethane cushion. Frames are offered in chrome or lacquered white or blue; cushions are covered with leather, fabric, or vinyl.
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Circle 45 on information card.
Kaldewei's oversized, curving Nautic shower tub (1) is one of a number of bathroom components by Frogdesign, an international design group with studios in Germany and Campbell, Calif. (Circle 201 on information card.)

The desk-top rubber stamp holder (2) by Raul Barbieri and Giorgio Marianelli for Rexite measures 4½x9 inches and accommodates 10 stamps. Made of injection molded ABS plastic, it is available in seven standard colors with a black holding rack. (Circle 202.)

Hansgrohe's Tribel hand shower (3), also by Frogdesign, is available in 13 colors and can be adjusted from full shower spray to a pulsating massage or soft spray. The system includes a matching wall bar with a clamp to secure the shower head and a flexible metal-effect hose with a reinforcing coil. (Circle 203.)

Products continued on page 124
Lighting Fixture.
DoorKeeper compact, low wattage lighting unit, is available with a 7- or 14-watt twin fluorescent tube or a 35-, 50-, or 70-watt high pressure sodium lamp. The fixture has a die-cast aluminum housing and round or cylindrical globes made of clear, smoked, or milk white polycarbonate. (Crouse-Hinds Lighting, Vicksburg, Miss. Circle 238 on information card.)

Downlighting Fixture.
Rectangular downlight unit uses an energy-saving, compact fluorescent twin tube. The recessed metal housing can be installed in walls or ceilings in both commercial and residential applications. (Halo Lighting Division, Elk Grove, Ill. Circle 237 on information card.)

Solar Greenhouse.
Sunbuilt prefabricated greenhouses are constructed with tubular aluminum rafters and cross bars with an electrostatically applied bronze finish and one-inch laminated safety glass overhead. The entire system is thermally broken, and excess moisture is channeled to the greenhouse exterior through primary and secondary condensation gutters. Neoprene bonded washers are used with all pressure plate screws to prevent water seepage. (J. Sussman, Inc., Jamaica, N.Y. Circle 236 on information card.)

Door System.
Castlegate embossed replacement doors are constructed of steel with a solid, foamed polyurethane core. Magnetic or compression weatherstripping, a bottom sweep, and adjustable threshold are designed to seal off the space between the door and frame to minimize air and water infiltration. Hinges reinforced by 18-gauge steel plates are riveted to the door edge. (USG Industries, Chicago. Circle 235 on information card.)

Patio Door System.
Sunbreeze patio door is a knockdown pre-packaged system designed to fit renovations and new construction. It is available in a variety of two- or three-door configurations with left, right, or center swings. All components are pre-cut and pre-drilled. The system has solid oak weathersealed sills, aluminum screen doors, and solid hemlock jambs and moldings. (Simpson Door Co., Seattle. Circle 234 on information card.)

Wood Flooring.
Modular wood floor panels, measuring 30 inches square, are made of burl and figured walnut with ½-inch brass inlay accents. Preassembled modules are available in a number of patterns. (Kentucky Wood Floors, Louisville, Ky. Circle 224 on information card.)

Wall Mounted Light Fixture.
The three-tiered wall fixture (above), called French Deco, is made of translucent gray and white marble with solid gray sides. The light fixture uses a 40-watt incandescent bulb. (In lines, Atlanta, Circle 204 on information card.)

Horizontal Wall Panels.
Formawall H panels, designed specifically for horizontal applications, have a side joint with a pressured equalization gap and sloped shelf that enables water to run off rather than be trapped in the joinery. Vertical joints between panels have dry seal, compressible gaskets that are recessed to complement the side joint reveal. (H. H. Robertson Co., Pittsburgh. Circle 233 on information card.)

Lighting Control System.
H-Moss 200 motion switching system is an occupancy sensor to control lighting. The electronically controlled, passive infrared sensor detects and responds to changes in radiated heat and movement. When a room is unoccupied for more than 12 minutes the lights are turned off, and when the room is re-entered the lights are turned on. The unit, which mounts unobtrusively in the ceiling, is wired into the lighting circuit. (Hubbell Wiring Device, Bridgeport, Conn. Circle 232 on information card.)

Hearth Stove.
Hearthline hearth stove is made of cast iron with a double wall fire chamber and a baffle plate. The fluted backplate is designed to increase heat transfer and efficiency. The stove can be installed free-standing or placed in an existing chimney with a hearth measuring 16 feet in depth, and the six-inch flue connection can be made from the top or rear. Two large ceramic glass windows provide fire viewing. Although designed primarily for wood burning, the stove includes a removable cast-iron gate, log retainer, and ash pan for adapting the stove to burn hard or soft coal. (Dovre, Inc., Aurora, Ill. Circle 221 on information card.)

Commercial Door Hardware.
Door levers have solid brass construction and concealed screwless shank trim. Available in seven basic designs, handles have stock finishes of polished brass, oil rubbed bronze, or polished or satin chrome. Two-inch clearance separates the face of the door and the inside point of the lever. (Baldwin Hardware Corporation, Reading, Pa. Circle 230 on information card.)

Curtain Wall System.
Light Wall translucent panels are made of an aluminum grid core with a series of geometric openings with permanently bonded sheets of glass fiber reinforced polyester. The geometric openings reduce the need for conducting metal in the wall beams and resistant membranes restrict the convective air flow. Available in two thicknesses, the system is designed to provide diffused natural lighting and increase thermal efficiency. (Extech, Inc., Pittsburgh. Circle 229 on information card.)

Floor Tiles.
Natur and Le'Clay laminated vinyl floor tiles are available in a variety of shapes and sizes in 10 earth-tone colors. Natural has a ripple surface texture with light flecks, and Le'Clay has a slate-like texture. Both are designed to be installed over several types of subfloors. (GMT/Eden, Bronx, N.Y. Circle 228 on information card.)

Computer Table.
Bi-level, crank-adjustable table accommodates a CRT unit on the upper level and the computer keyboard on the lower surface. Both levels slide forward and backward and include wire management. The display surface is 30x18 inches, and the height is adjustable from 24 to 32 inches. The table is available with a brown or tan frame and three laminate finishes. (Human Technologies, Inc., Londonderry, N.H. Circle 231 on information card.)

Light Table.
The Forester Lite is designed to serve as both a light table and a portable light box. The light box has two screws for removal and a carrying handle, collapse-resistant legs, power cord holder, and rubber bumpers. Air vents on the back and bottom are designed to provide cool operation, and adjustable channels provide access to the light tubes. (Mayline Co., Sheboygan, Wis. Circle 217 on information card.)

Products continued on page 14
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Architectural Tambours.
Custom tambours for desks, file closures, and partitions are available in solid and veneer woods, metals, vinyls, laminates, and paintable surfaces. (National Products, Louisville, Ky. Circle 225 on information card.)

Wall Board.
Ultra-Board from Weyerhaeuser is an asbestos-free building board designed for interior and exterior applications in retrofit and new construction. The U.L.-rated noncombustible wall board is water resistant and provides sound and thermal insulation. (Brit/Am Venture, Middlesex, N.J. Circle 219 on information card.)

Movable Wall System.
The GB-350 system of glazed partitions and wall panels is designed to allow flexibility in office interiors. Panels are available in a variety of textures, fabrics, and metal facings with bronze, putty, black, clay, and satin anodized trim components. Prefabricated studs, track, and horizontal channels are the basic structural parts, and gravity lock fasteners use the panel’s weight to anchor it in place. (Gold Bond Building Products, Charlotte, N.C. Circle 226 on information card.)

Window System.
Installation system for grouped roof windows and skylights is comprised of prefabricated gang flashings that allow windows to be spaced four inches apart and joined side-by-side or over-under. The modular system snaps together for easy installation. (Velux-America, Inc., Greerwood, S.C. Circle 218 on information card.)

Mirrored Wall.
Bezsafe mirror paneling is available in standard sizes in three-foot widths and customized sections for arches, doorways, and fireplaces with etching or beveled edges. The glass is standard float plate glass with four coats of pure silver, two coats of pure copper, and a baked-on epoxy finish. The panels have a bonded foam backing and are installed with spindles and fasteners. (Mechanical Mirror Works, New York City. Circle 216 on information card.)

Window System.
Motorized control system is designed to adapt to a variety of windows in residential, commercial, and industrial buildings. It can raise and lower movable awnings, rolling shutters, interior window shades and screens, and movable skylights. (Somfy Systems, Inc., Edison, N.J. Circle 220 on information card.)

Exterior Lighting Fixtures.
The F-800 decorative street lights have fluted, glass fiber poles and bases. Fixtures are available in 10-, 12-, and 13-foot heights in black and green. (Main Street Lighting Standards, Cleveland. Circle 2 on information card.)

Architectural Detailing.
Balustrades, cornices, and moldings made of lightweight glass fiber are designed to resemble original detailing in renovation.

continued on page 1
The Kemper Group helps insure its employees' comfort with Sloan OPTIMA® No-Hands restrooms.

Kemper's insurance products provide policyholders with comfort and peace of mind. Employees at Kemper's International Headquarters complex received the same consideration when the company installed Sloan OPTIMA No-Hands automated toilets and urinals.

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Ask your Sloan representative about Sloan No-Hands automated systems. Or write us.
Products from page 126 projects. The surface contains U.V. inhibitors, which are designed to provide color and texture stability and to reduce the need for frequent painting. (Fibertech Corporation, Clemson, S.C. Circle 222 on information card.)

Door Hardware.
Reinforced pivot and swing hinges are designed to anchor doors and frames in commercial and institutional applications. The pin in the top hinge has a bottom head with a threaded shank for easy removal, and a short door plate is available for use with concealed holders and closers. Various finishes are offered to match steel, bronze, or stainless steel hardware. (Stanley Hardware, New Britain, Conn. Circle 205 on information card.)

Office Furniture.
Modular computer furniture system has a keyboard platform with a three-inch vertical adjustment, a forward tilt of 10 degrees, and a three-inch focal adjustment. A “cable manager” recess in the back of each module is designed to hold computer cables and power cords. Units are designed to be combined and rearranged to meet varied requirements. (Case Products International, Florham Park, N.J. Circle 214 on information card.)

Window System.
Aluminum-clad horizontal slider windows, available in standard two-, three-, and four-foot increments, have a 1/2-inch thick extruded bronze or white exterior frame and an interior frame and sash made of ponderosa pine. Standard glazing is 3/4-inch insulated glass. (Hurd Millwork, Medford, Wis. Circle 207 on information card.)

Commercial Flooring.
Noraplan flooring is made of 100 percent synthetic rubber designed to resist chemicals, burns, and stains. It is available in 26 colors with a smooth, marbled, or contrasting dot surface texture. (Nora Flooring, Madison, Ind. Circle 208 on information card.)

Bathroom Tub.
Kallimikri five-foot tub is constructed of Armacryl, a highly resistant polyester and acrylic material. The body-contoured tub is available with the Niagara waterfall spout and an optional whirlpool model with six water jets. (Kallista, Inc., San Francisco. Circle 209 on information card.)

Computer Furniture.
CAD-TECH series of office furniture includes terminal tables with both fixed and adjustable heights. Gas-assisted tilts for large digitizer tables with flush mounted units are also available. (Karl Gutmann, Inc., Cornwall, Ontario. Circle 210 on information card.)

Patterned Rug.
Burgundy collection of handmade rugs are made of 100 percent wool. The rugs are available in a number of abstract and geometric patterns with cut, loop, and sculpted pile textures. (Stark Carpet Corporation, New York City. Circle 211 on information card.)

Kitchen Fixtures.
Sundance cabinet line is constructed of particleboard covered with 1/8-inch thick red oak veneer with a natural oak finish. The cabinets have grooved details, horizontal slats, and vertical framing, and the door and drawer pulls are brass finished wire. (Haas Cabinet Co., Evansville, Ind. Circle 206 on information card.)

Storage Units.
Sigma 2000 storage units have either fixed or mobile based pedestals with a number of drawer sizes and configurations including a 3 1/2-inch pencil drawer, a 7-inch utility drawer, and 10 1/2- and 14 1/4-inch file drawers. All drawers have radiused handles. (Burroughs, Richland, Mich. Circle 213 on information card.)

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