RCHITECTURAL RECORD

SEVEN DOLLAR

8/1990

Museums as Civic Statements

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From the Publisher

It's A Team Effort

A great magazine is a dynamic and evolving enterprise, and so it is with ARCHITEC-TURAL RECORD. Since it all begins with readers' interests and needs, we thought you might be interested in an update of some of our activities on your behalf.

The announcement of our new strategic alliance with the American Institute of Architects stimulated a wonderful sharing of ideas on how we can serve the profession, the public, and the range of professionals involved in the built environment. First and most important, we expanded our efforts to hear the concerns of our constituency. This included formal research, focus groups, and roundtable discussions. Thank you to the many people who participated in this process. We learned so much, including how easy it is to get our audience to express opinions! We were struck by the passion, intelligence, and sense of social responsibility expressed by the participants. The mix of talents in business, science, and art in those we serve is truly extraordinary, and provides a challenging range of interests and concerns for our magazine to address.

The effects of this activity will be seen most dramatically in the January, 1997 issue when the next evolution of ARCHITECTURAL RECORD debuts. You'll receive a magazine designed to stimulate and inform you with its content, focus, and graphics. And it is the result of the fine work by the folks you see pictured on this page. We're blessed with an extraordinary team of editors. Many of you have met Karen Stein, who identifies important projects and this year developed the very exciting quick-time VR CD-ROM of the RECORD HOUSES issue. Or James S. Russell, who



specializes in technology and practice issues, and is currently developing our Internet Website. Charles Linn is our RECORD LIGHTING specialist; Cliff Pearson, our global guru; Joan Blatterman, products specialist. The other people you see here include the wide range of professionals from graphic design, to production, to distribution, to research, who all contribute in such an important way to our quality and service. In addition to this group, we're very pleased to include as part of our team the Pulitzer Prize-

winning critic Robert Campbell, among other prominent contributing editors and correspondents around the globe. Of course, missing from this picture is our display advertising sales team. They're where they should be—in the field working with manufacturers to create effective communications with you.

Regrettably, this issue marks the departure of Stephen Kliment, editor of the RECORD for the past six years. We're so grateful to Steve for his important contributions and wish him all the best in his future endeavors. Steve has left behind a fine legacy in the team that he built. A new editor will be announced shortly and together we look forward to entering our 107th year of publishing with enthusiasm, creativity, and gusto.

Our goal is to address the intersecting interests of our dynamic audience of architects, owners and design/construction professionals with a heightened level of excellence and innovation. Your thoughts are always welcome. Thank you for the opportunity to be of service. *Elaine Shusterman*

ARCHITECTURAL RECORD News

Rome

Meier & Partners Wins Vatican Church Competition



The Vatican plans to build 50 new churches in Rome by the year 2000 and one of them will be designed by Richard Meier & Partners of New York City, the only non-Italian firm to be awarded one of the church commissions so far. Also vying for the project were Tadao Ando, Günter Behnisch, Frank Gehry, Santiago Calatrava, and Peter Eisenman, a group which was invited to compete following an unsuccessful local competition. Meier's design for the new parish church and community center will serve the 8,000 residents of a lower-middle-income housing complex in the Tor Tre Teste district of Rome. The \$5million, 22,000-sq-ft project is characterized by four shell walls of reinforced concrete that will cup the church like "the palms of three hands." *Abby Bussel*

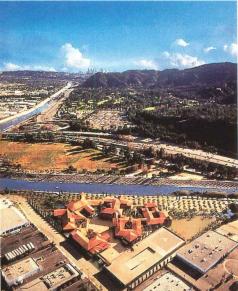
Indian Museum

Design Unveiled

California

Washington, D.C.

Fairy Tale Campus in Glendale to House DreamWorks Animators



DreamWorks SKG, the brainchild of filmmakers Steven Spielberg, Jeffrey Katzenberg, and David Geffen, broke ground this June on its 300,000-sq-ft animation campus in Glendale, Calif. The Mediterranean-style design by Steven Erhlich Architects of Santa Monica includes five buildings organized around a central "piazza," which is anchored by a 105-ft-tall "campanile." Each structure, finished in plaster and roofed with Cor-Ten steel, will have courtyards, patios, and terraces to take advantage of the Southern California climate. A man-made river and a newly planted orchard will further animate the 13-acre site, which is adjacent to the Los Angeles River. Erhlich's design, the result of an invited competition, is to be completed late next year. Gensler Associates is the executive architect for the project.



The Smithsonian Institution has unveiled the concept design for the \$110-million National Museum of the American Indian—the first dedicated to Native Peoples of the Western Hemisphere and Hawaii—by GBQC Architects, Philadelphia, with Douglas Cardinal Architects, Ottawa, Ontario, Canada. Scheduled to open on the Mall in Washington, D.C., in 2002, the 250,000-sq-ft museum will house galleries, a theater, resource and conference centers, a restaurant, and a four-story multipurpose room. ■ (News continues)



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A New Age of City Building Is Forecast At U.N.'s Habitat II Conference

Architect Robert Geddes was a participantobserver at Habitat II, the United Nations conference on human settlements, held recently in Istanbul. A former dean of the Princeton University School of Architecture and Urban Planning, he is now in private practice. RECORD spoke with Geddes about the conference, attended by more than 10,000 people.

Record: What was the main agenda of the conference?

Geddes: The U.N. had a series of conferences starting with the Rio de Janeiro conference on the natural environment in 1992 and ending with the built environment in Istanbul. Between 1992 and 1996 there were conferences on women's rights in Beijing, population in Cairo, and social development in Copenhagen. These were all important milestones and the issues discussed at these conferences interact in cities. Every day the population of the world is increasing by onequarter of a million people and most of that growth will be in cities.

The United Nations wanted to address two issues at Habitat II. The first was how to provide adequate housing for all, and the second was sustainable development in an urbanizing world. Conference organizers also wanted to create a global policy on shelter and sustainable design, which was related to individual statements submitted by the 185 U.N. member governments. The Istanbul Declaration and the Habitat Agenda set standards and criteria against which future actions will be measured and judged.

Record: What, in your view, was most significant about the conference?

Geddes: What was unusual about Habitat II was its effort to involve organizations other than governments in urban policy and development. For the first time, nongovernment agencies had a voice at a U.N. conference. This means growth in the importance of civil society and that's good for architecture. One aspect of the future of architecture is that we will not see our clients as simply as "public sector" or "private sector." We will see the growth of the civic sector. Community development organizations, cooperatives, and design



Oratoköy Mosque and the Bosphorus Bridge in Instanbul, site of the U.N. Conference.



"I would argue that cities of the future will be based on the neighborhood as building block.... For me, the solution lies in understanding what the street is and how to design it.-Robert Geddes, (photo left)

coalitions will be the wonderful clients of the future.

There was also an emphasis on incorporating the landscape into the development of cities. In the conference's Best Practices exhibition, the Chinese, for example, showed an initiative for garden streets, and one for starter housing. The Germans presented plans for the renewal and rebuilding of existing fabric-industrial sites and cities.

Record: You spoke on a panel called "What cities will look like in the 21st century." What do you believe will be the shape of our cities in the next millennium?

Geddes: I would argue that the cities of the future will be based on the neighborhood as the building block. The issue for architects will be how they create centers and neighborhoods. For me, the solution lies in understanding what the street is and how to design it.

We must also begin to develop ways of bounding cities and probably that will result in the development of new cities. The Middle Ages

were a time of city building. People were striving towards the modern world and I think we are in a similar period. The architects' responsibility is in learning how best to build centers and edges. And, the practice implications are quite exciting. It will result in the expansion of architecture, which I think will include landscaping and civil engineering, infrastructure design and planning, and development planning.

Record: Based on your experience at Habitat II, what role can architects play in the shaping of the 21st century city?

Geddes: I put a real emphasis on the form of cities. The role of architects is concerned with spatial growth and form. Urban growth and form affects the natural environment; it affects women's living environments, particularly as they pertain to child rearing; it affects where people can [afford to] live and where they can [find] work.

I believe that in the future there will be five recognizable architectural products: building systems that are appropriate; the renewal of the existing building stock (looking at existing stock as landscape); looking at the neighborhood as a building block; ways of achieving sustainable communities; and the development of new cities.

Interview conducted by Abby Bussel.

Briefs

Commissions on the coast

Recent commissions on the West Coast include the renovation and expansion of a 1905 substation for the Jewish Museum San Francisco by Eisenman Architects, New York City, with Architectural Resources Group; the East Asian Studies Building for the University of California at Berkeley by Tod Williams Billie Tsien & Associates, New York City; a \$100-million campus for Soka University in Orange County, Calif., by Hardy Holzman Pfeiffer Associates, Los Angeles with Summit Architects; and the Experience Music Project in Seattle by Frank O. Gehry & Associates, Santa Monica.

Praemium Imperiale Prize for Ando

Japanese architect Tadao Ando is one of five winners of this year's Praemium Imperiale Prize, which honors excellence in the arts. The international award is bestowed by the Japan Art Association.

P/A: The Next Generation

Six months after *Progressive Architecture* (P|A) was acquired and closed down by the publisher of *Architecture*, a group of former P|A staffers has announced the creation of a new on-line magazine and information service. Developed with Princeton Architectural Press and Reach Networks, the subscription-based magazine is to be launched this fall.

Cranbrook lawsuit settled

A lawsuit brought by Susana Torre against Cranbrook Academy for breach of contract —filed after her dismissal as director of the school's academy of art late last year—has been settled out of court; details have not been made public. Lillian Bauder, Cranbrook's president, announced her resignation shortly after the lawsuit was settled.

HUD to honor housing innovations

The new Building Innovation in Home Ownership Program, sponsored by HUD, recognizes projects that demonstrate developmental and technical innovations. Submissions are due September 15. Contact HUD User, P.O. Box 6091, Rockville, MD 20849. Attn: Rebecca Hollands. Tel. 800/245-2691. E-mail: huduser@aspensys.com.

National waterfront competition A competition for a \$2-million waterfront park in Greenport, N. Y., includes a \$20,000 first prize. For more information, call 516/477-3000 or fax (516) 477-2488. ■

New York City

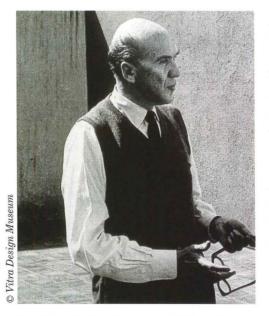
Community Design Centers Offer Alternative Model for Architects

As some architects search for renewed professional relevance, community design centers (CDCs) stand as ready models, according to delegates at the 17th annual conference of the Association for Community Design. The association is a national organization of architectures and planners "dedicated to serving the economically distressed community."

Several examples of CDC initiatives were presented at the June conference, co-hosted by City College in Manhattan and Pratt

Germany

Vitra Acquires Barragan Archives



The Vitra Design Museum in Weil am Rhein, Germany, has acquired the archives of Mexican architect Luis Barragan (1902-1988—shown above) from the architect's office and private collection. Included in the purchase are 13,500 drawings, 7,500 photos, seven models, a range of Barragan's furniture and objects, and related documentation, such as publications, correspondence, and other original material. The proceedings from an international symposium will be published in conjunction with an exhibition on the archives at the museum next year. ■ Institute in Brooklyn. CDC members from Pittsburgh described their recently established Renovation Information Network, which is a consultation program to help homeowners. Delegates from San Francisco, where the CDC is called Asian Neighborhood Design, told how they design housing and furniture and encourage contractors to train youth from low-income neighborhoods.

CDCs in many communities are joining with local governments and allied professionals to serve distressed populations. *Abby Bussel*

Canada

SOM Designs U.S. Embassy in Ottawa

Skidmore, Owings & Merrill of Washington, D.C., has designed the new United States Embassy building in Ottawa, Ontario, Canada. Located on a sloped, triangular island site along the Confederation Boulevard Ceremonial Parade Route, the 139,000-sq-ft building will act as a link between the city's Federal District and commercial center. It will also centralize U.S. government offices currently housed in several buildings throughout Ottawa. Responding to the diverse nature of the site's surroundings, which include the Cass Gilbert-designed Parliament and Moshe Safdie's National Gallery as well as an urban park, the architects have designed a building with four different facades, each meeting the U.S. State Department's strict security requirements. A rusticated, rock-faced stone plinth base wrapped around the poured-in-place concrete structure is designed to act as a unifying element. Construction is expected to be completed by fall 1997. The budget has not been made public.



ARCHITECTURAL RECORD Observations

Softening Brutalism: Is Anything Lost?

The renovation of Walter Netsch's hard-to-love University of Illinois at Chicago campus raises some difficult issues.

© Steinkamp/Ballogg Chicago photos, except as noted

By Cheryl Kent

At the very moment interest in Modernism is reviving, one of its most complete essays has been modified, some might say, disfigured. The renovation of the 1965 Brutalist-style University of Illinois at Chicago (UIC) campus could be cast as a classic fight of architectural integrity versus accommodation of present-day tastes and uses. That is, if there had been a fight, but there wasn't.

Given that the campus is challenging, not easily loved, and has few public champions other than the architect, Walter Netsch, who designed it, the question of renovation was comfortably resolved, perhaps too comfortably. The decision was to "humanize" it. Hey, who could argue with that?

Without question, the UIC campus was a hard-edged, tough place not easily accessible, intellectually nor esthetically. It was difficult to maintain and had long fallen into disrepair. Most of the buildings are made of cast concrete, blasted to reveal the rough aggregate; others are brick. Windows are often screened by ornate precast concrete that creates an interesting textural effect from the outside but blocks light inside. Netsch, 76, a former partner of Skidmore, Owings & Merrill who retired in 1979, says he used concrete expressively, always minimizing reinforcing bars in favor of bulking up the concrete. In this way, he says, the concrete would accurately reflect its load and function.

The campus, as it was designed and built, was surely an expression of the heady post-World War II techno-optimism that celebrated science and new materials, and imagined a future of unlimited possibilities. Indeed, it was Netsch who gave that age an icon when he designed the Air Force Chapel near Colorado Springs, Colo., which was awarded the AIA's 25-year award in 1995.

To many contemporary eyes, however, the UIC campus was an inhuman place, unwelcoming in every detail, unsafe, reflecting the worst planning excesses of its day, and nonfunctional in the bargain. Its system of elevated granite walkways was a prominent

Cheryl Kent is a former correspondent for P/A and writes about design from Chicago.



© Daniel P. Coffey & Associates



The UIC campus after renovation by Daniel Coffey (top), and as it was originally (above).

target for criticism. The second-story walkways were to cross perimeter streets, where parking garages were to be located, and then move on to connect university buildings. When the garages were not built, the internal campus walkways, which were built, lost much of their reason for being. Yet, with their many concrete columns, they created a condition at grade level that felt dark and unsafe.

UIC was built on programmatic assumptions which were new and which, sadly, never fully materialized. Imagined as a campus that would compete with the University of Illinois at Champaign-Urbana, the Chicago campus was projected to accommodate 20,000 students by 1969, and more than 30,000 by now. At present, enrollment stands at 19,000. It was to be a commuter school, no dormitories, with students of all ages coming and going 24 hours of the day, 365 days of the year. Most important, it was designed for inner-city students who would not have been able to attend university otherwise. Because many of them were expected to come from poor households, the assumption was all students would work. Thus, the campus was positioned at a hub with access to highways and public transportation. The underlying concept was to invent a place for academic and social interchange and the plan reflected those ideals.

Circumstances changed in the 1970s. Money was diverted from state universities to technical and community colleges, making plans for completing the UIC campus impossible and simple maintenance problematic.

University officials began rethinking the campus design in the late 1980s. "I regard this as a hostile architectural environment," says Dr. James J. Stukel, president of the three-campus University of Illinois. He does not minimize the importance of the architectural changes he has made at UIC. "It's an historical landmark. People come from around the world to look at the campus. I personally wrestled over it. But I put people *Continues* over architectural design. We're trying to make an environment that's comfortable for students." Indeed, the campus was seen as so alienating as to repel potential students and faculty. The redesign, Dr. Stukel says, is one element in an effort to attract new students.

Dismantling the elevated walkways

Under a prior university president, the firm of Johnson Johnson & Roy of Michigan was hired to develop a master plan, which was completed in 1990. It advocated building on the school's original Modernist scheme. The university ignored the plan, eventually commissioning architects Daniel P. Coffey & Associates of Chicago to renovate the campus (by that, the university meant "soften"). Coffey dismantled all the second-story walkways that together with the massive roof-top court formed the heart of Netsch's scheme. An amphitheater at the center of the court was done away with, as well as the exedrae at the four rooftop corners.

Six lecture-hall structures—functionally separate buildings—which were exposed when the roof-court was removed, were re-covered with standing-seam roofs. Four are now conventional hipped roofs that play on the rotated geometry of Netsch's original design; the other two roofs have become shallow vaults. The hip roofs would have been better left flat. As it is, they contrast weirdly with the strongly rectilinear buildings beyond. The vaulted lecture halls on the north and south sides of the quadrangle have an inexplicable air. Their entries don't face the square and their rooflines are incongruous.

Where the amphitheater had been, there is now an elliptical court at grade that is circulation space and, with its terraced seating, a place to hang out. Inexpensive concrete paving has been used, which contrasts poorly with the materials used before. In some areas the line of the elevated walkways has been followed with sidewalks. Elsewhere, simple intersections have become pedestrian nodes from which multiple paths take off in ways that aren't always geometrically rational.

The original craftsmanship and the level of detailing was extraordinarily high on the campus. Corner butt-glazing that has not been recaulked in 30 years remains intact. © Daniel P. Coffey & Associates



Brickwork is still tight as a drum. And there was an attention to detail that was far above the norm. "We used an old Renaissance trick; for big buildings, we used big brick; for small buildings, we used small bricks," says Netsch. Much, including the brick, was custom-designed—not an extravagance, as it would be today, but because the foundries, shops, and trades were still small enough to produce custom designs profitably.

Not everything held up well. Stukel says, "We had a choice, money could either go to people or to maintenance." In the late 1970s money was taken from maintenance. The annual requirement for the university's three campuses is \$20 million, Stukel says. In good years, they get \$8-10 million. By the late '70s, the campus had a worn quality despised by many students and faculty members.

Robert Bruegmann, professor of architectural history at UIC, says, "Right after it was completed, it looked pretty good. But within one generation, it began to crumble. Like any mega-structure, it was meant for long-term future growth. But the university lost faith in the main plan and the maintenance was disastrous." The steps leading up to the raised walkways had wires embedded in them to melt the snow. They were incompatible with the concrete. The transformers blew out and were never replaced. Snow was not removed. Second-story doors were locked so people couldn't use the walkways. Beneath the walkways where people were forced to walk, the cycle of thaw-freeze-thaw and plain leaking forced some to put their umbrellas up when the sun was out. In the end, Bruegmann says, "The university felt an overwhelming need to change this image of the 'concrete jungle.' "

The elevated walkways and massive roof-top court of the Netsch scheme (below left) have been removed to reveal six separate lecture halls and a new plaza (below).



No more architectural militance

The pressures on the university are very real, but this solution is very banal. This is not a traditional campus and planting a quadrangle in the middle of it won't make it one. If it once had the proud air of architectural militance, it now seems reduced, shriveled, as though it would like nothing better than for some vines to grow over it.

Netsch didn't find allies in his efforts to save his design scheme, even when he offered to bring the walkways down to grade and make them conventional sidewalks. The public membership group, Landmarks Preservation Council of Illinois (LPCI), concluded the campus was not worth protecting.

And the city's Commission on Chicago Landmarks has never considered protecting the campus, partly because of the school's age; it is rare for buildings less than 50 years old to be landmarked.

Indeed, the chorus against the campus has been so loud and certain, even among architects, that the mere suggestion of protection could provoke laughter. The community may have been equally smug when building owners were ripping cornices off Louis Sullivan buildings in the 1960s and proposing Postmodern petticoats be tied around the waists of Modern monuments in the 1970s. In 20 years will we regret having allowed this?

THE PROFESSION 8/1996

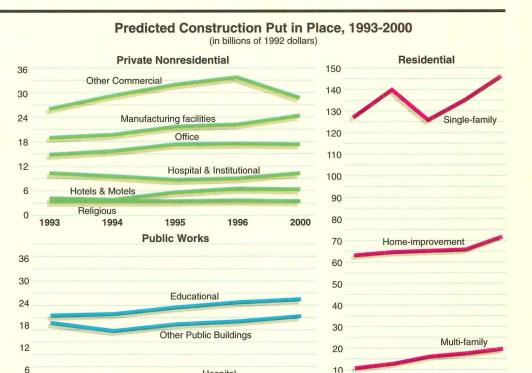
Indicators

Commerce predicts industrial strength

U.S. Department of Commerce's quarterly construction report predicts significant growth for industrial construction and schools in the next few years. Since construction at K-12 facilities is near record levels, that is good news. In spite of health-care cost cutting, Commerce expects hospital construction to strengthen too. It sees a "strong underlying demand" for industrial and utility construction because of the "need to modernize the capital stock of U.S. manufacturers." Other analysts [RECORD, June 1996, pages 36-39] see these sectors as restrained by import growth and a slower-growing economy.

Commercial types should rise modestly, following GDP, though Commerce sees the "big box" retail trend abating and office improvement restrained by new work patterns.

Housing's outlook is clouded by interest-rate concerns and demographic trends that favor



cerned about urban redevelopment, involvement needs to go beyond doing a good job on individual projects. Architects' visionthe other hand, a recent aquarium in Camden, N.J., has performed well below expectations, and Ehrenhalt calls Tampa's "a

"Though the mayor was the impetus, the Phoenix Art Museum . . . was accepted by voters because it was such a small part of a billion-dollar bond issue."—Tod Williams

ing skills can help draw together diverse urban constituencies, thereby building crucial support for the validity of bricks-andmortar urban redevelopment—even helping projects pass muster with increasingly finicky voters. Also, a knowledge of the increasingly complex strategic and financial tools deployed today will help advocates shape feasible projects.

Financing drives what's built

In a perfect world, a city would carefully plan what it needs, then seek project funding through appropriate mechanisms. The imperfect reality is the dynamic of political ego and local boosterism. "Trophy" urban projects like sports stadiums and convention centers have figured prominently on city agendas over the last few years, but analysts warn the bubble could burst. "Cities always perceive



Phoenix Art Museum, nearing completion, by Tod Williams and Billie Tsien.

flop" [RECORD, June 1995, pages 78-85]. In such facilities, unsuitable programming and design are usually part of what goes wrong.

There's also something of a backlash against extortion by sports-team owners, who threaten to move a team if a new or improved stadium is not built.

the qualities common to successful urban redevelopment: an ability to understand context, to look at the big picture, and to help link apparently disparate areas and functions. Inner Harbor brought Baltimore's downtown to its waterfront; architects and designers redefined the shopping mall as the festival marketplace. In the Gateway Center in Los Angeles, explains Stanton Eckstut, partner in New York City-based Ehrenkrantz and Eckstut, "we looked at how what is essentially an infrastructure project could be leveraged, like Grand Central Station." Federal transportation funds financed the intermodal rail and bus terminal, but the architects designed the project to create value for commercial developers (page 36).

"In urban Los Angeles, everything has been driven by entertainment-oriented retail," comments Fulton, citing Universal Citywalk, a movie-studio retail adjunct. He also cites Culver City, which hopes to build retail related to its resurrected Sony/Columbia Pictures studios. He might also have been speaking of New York City, where entertainment retail has bailed out the long-stalled redevelopment of Times Square (page 37).

One of the reasons the Seattle Commons went beyond the back-of-the-napkin-stage, says Tom Byers, the former chairman of the Architects' skills—abetted by knowledge of complex strategic and financial tools—can help draw together diverse urban constituencies, to build crucial support for bricks-and-mortar urban redevelopment.

park planning committee, is that Douglas Kelbaugh, then chairman of the architecture department at the University of Washington, offered to run a charrette on the idea, uniting students with experts from around the country. The charrette "gave narrative shape to what had been just a green blot on a map," explained Byers.

Planners, landscape architects, and urban designers all served on Commons committees, and were relied on, according to key participant David Wright of the Bumgardner Partnership, "for their ability to interpret disparate thoughts into plans and renderings; the ability to imagine and depict ideas in three dimensions and in lay terms."

The altered redevelopment economy

The Commons foundered, say analysts, because it didn't appeal to voters who didn't live nearby, yet was too costly to be underwritten by any entity smaller than the entire city. To succeed, projects, however worthy, have to make acress in the redwolverment.

But the commercial real-estate market, to which such projects must be linked, hasn't for several years been able to generate the lush cash flow needed. Instead, new kinds of partnerships are being formed, says Vernon George, who is president of Hammer, Siler, George Associates, a financial and economicdevelopment consultant to cities. Universities and research-oriented medical facilities are increasingly working with cities to help develop startup companies in downtown research parks. The benefit is that locally developed companies capture the economic spinoff of research for the community. The parks work best, says George, when university, government, and private sector "each play both a key financing role and a key part of

the development process." His firm is developing such parks in Richmond, Va., Oklahoma City, and Winston-Salem, N.C. He says that technology-related economic development is so popular that it is easy to build support from state sources and even from suburban counties, because such development boosts the region's "high tech" profile.

Strategies and money

Localities still have numerous tools to develop and finance projects. Of the following, tax-avoidance or tax-lowering devices have recently tended to supplant bond-raised direct capital grants.

♦ Bond issue: The tried and true method.
 Yes, taxpayers are reluctant to tax them-



pay on project dept of support operations.

◆ Enterprise zones: Areas targeted for redevelopment benefit from special tax breaks, job-training assistance, and other aid. (Tax abatements, often offered as part of enterprise-zone packages, may also be offered as a redevelopment inducement outside zones.) Numerous states have defined enterprise zones. Of the much-ballyhooed federal enterprise-zone initiative, only six communities have been named, although there are 65 second-tier "enterprise communities."

◆ Commercial revitalization tax credit: A federal program that might work in tandem or apart from enterprise zones and that is similar to the tax credit for restoring historic landmarks. The latter credit still exists, but lost considerable value through the repeal of "passive loss" provisions that made it attractive to investors. By lowering the cost to business, the proposed tax credit encourages redevelopment of distressed neighborhoods. It has yet to catch fire in Congress.

What techniques work?

Economic-development experts see advantages and pitfalls in all these methods. "You can get a bond issue passed," says *Governing* magazine's Alan Ehrenhalt, "but there's often no money in the operating budget. We are getting these problems with jails." Black echoes the sentiment, and adds, "If you're an extraordinary turnaround financed by the tax increment of increased value generated by almost its entire land area. San Jose has also financed revitalization of its once-moribund downtown through tax-increment financed cultural facilities. Tax-increment financing has its risks, however. While it creates funds for redevelopment without short-term tax increases, the increased value of growth is used to pay off the redevelopment debt, not to build schools or other facilities that growth can create new demands for. Still, says Ehrenhalt, "It's one of the best tools there is."

Enterprise zones were first touted in the 1980's as an antidote to constant injections of urban federal aid. Yet it has been the federal government that has dragged its feet in creating an enterprise-zone program, enacting it only in 1993. Instead, states pioneered the zones, says Jim Breagy, of the National Council for Urban Economic Development. (The organization represents urban-development offices in city governments.) "About 38 states have some form of program," explains Breagy, but, in terms of success, "they are a mixed bag. Some say states alone can't offer enough tax breaks to work." Adds ULI's Black, "They're really most useful when they are part of a package that includes an overall

Saitowitz—3).

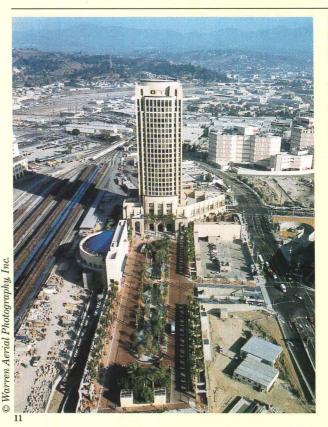
Rethinking Philadelphia's Independence Mall

Venturi Scott Brown & Associates compared four-block-long Independence Mall, criticized as uninviting and underused almost since its opening in the 1950s, to other famous urban places (4, 5) in studying it as a location for a "gateway" visitors center. Pursuant to its charge from the local Pew Charitable Trusts, which underwrote the study, VSBA designed the center to not only orient visitors to Independence Hall, the Liberty Bell, and other historical sites, but also to acquaint them with other regional attractions. The designers offered possible sites for a center on the Constitution, and suggested an alternative to Mitchell/Giurgola's 1976 Liberty Bell pavilion (6, 7), criticized by some as too modern.



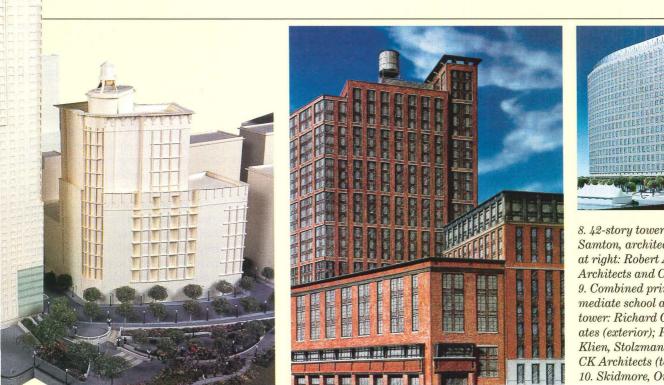
says ULI's Black, when cities don't look only "at this facility or that facility," but build with a strategy "to capture some segment of a market." Sports facilities or convention centers contribute more when they are connected to restaurants, bars, or entertainment-oriented retail. Credit the planners of Baltimore's Camden Yards for applying these synergies to baseball parks-it's now caught fire nationwide. But Seattle learned this lesson as long ago as the late 1960's when it located its Kingdome adjacent to revitalizing Pioneer Square. Philadelphia learned the lesson again just two years ago when its new downtown convention center opened, pumping life into adjacent Chinatown and the Reading Terminal Market (a combination of funky lunch places and farmers' market).

"The big new buzzwords," says Denise Scott Brown, "are cultural touristic planning." According to Scott Brown, a planner as well as architect, and partner in Venturi, Scott Brown and Associates, "Studies show concert halls bring in more money and have a higher multiplier effect than stadiums." This is the case because visitors persuaded to stay the night spend more money than day trippers. "I think city planning commissions have *Continued on page 127* giant trading floors can find large enough sites, and as an extension of the Tribeca neighborhood, a tax-exempt financing—both of which are worth a great deal in high-tax New York City.



Building on infrastructure dollars in Los Angeles

Financed by federal and state transportation funds, the infrastructure for five towers was provided at Gateway Center, a combined bus, subway, and regional-rail facility (11). The headquarters for the local transit authority is housed in the completed tower. In downtown Los Angeles' depressed real-estate market, there's not yet much opportunity to add the commercial development anticipated by the urban-design team, Ehrenkrantz & Eckstut, but the site will ultimately link to a much more ambitious commercial and residential Alameda District Plan. The complex, which includes the historic Missionstyle train station (not visible), is intended to appeal to gridlockweary commuters.



© Jock Pottle/Esto

8. 42-story tower at left: Gruzen Samton, architect; 27-story tower at right: Robert A. M. Stern Architects and CK Architects.
9. Combined primary and intermediate school and residential tower: Richard Cook & Associates (exterior); Pasanella + Klien, Stolzman + Berg (school); CK Architects (tower).
10. Skidmore, Owings & Architect's First Source, a compendium of product information from about 400 companies, says, "In presenting material to a visually oriented recipient, the very real need for well-organized technical information is overlooked or diminished." A clear understanding of the esthetic dimension of a product is important, but the architect's professional credibility depends on being able to offer expertise about product performance.

The architect should question imprecise language. Terms like elastomeric, plastic, cement-based, and latex-modified apply to a huge range of materials with an equally huge range of performance characteristics. Ask for specifics: what *kind* of elastomeric mater-

Architect Barbara Heller is president of Heller & Metzger, Washington, D.C., a specifications consulting firm, that also operates SpecLine, a telephone consulting service.

Continuing Education

AIA members can earn two AIA/ARCHITECTURAL RECORD continuing-education learning units by examining the learning objectives (page 135), reading the story on these pages, completing the questions, and filling out and returning the self-report form, page 137.

products, but there are many ways to evaluate claims and make informed choices.

rections can be instituted prior to the occurrence of severe problems."

BIA seems to be saying that this brick assembly system presents a risk of failure, but the reader can't be sure. It's important to not only look for such small print, but to recognize, says Kimball Beasley, an investigative engineer with Wiss Janney Elstner, in Princeton, N.J., "when they put in that kind of disclaimer, I [the architect] have taken all responsibility."

Misrepresenting performance

A few manufacturers distort information. A studded-rubber flooring manufacturer's product literature states that the flooring has a slip resistance of 1.0 when tested in accordance with ASTM D 2047 in both wet and dry conditions. A Texas architect specified the flooring for a food-service area based on this representation, and was horrified when many visitors slipped and fell on the wet floor, including the county sheriff. The owner initiated legal action, accusing the architect of incompetence for specifying improper floor material. The text of ASTM D 2047 states our data on their letterhead for the purpose of getting an approval. We still provide it, but only when people ask for it." If something about the way the product is presented raises suspicion, it is appropriate for the architect to call the lab to verify that tests were actually performed and results accurately presented.

The Federal Trade Commission (FTC) is the federal agency with jurisdiction over unfair or deceptive commercial practices and acts. In 1993 and 1994, it filed complaints against the American Architectural Manufacturing Association (AAMA), a window manufacturer called Insulate Industries, and Pacific Inspection and Research Laboratory, Inc. (PIRL), a testing laboratory. According to the FTC complaints, Insulate supplied PIRL with windows that were enhanced, not standard production units. PIRL misrepresented the results of thermal tests on these windows as well as others, and AAMA repeatedly accredited PIRL even though PIRL did not satisfy AAMA's criteria for accreditation. Interestingly, the FTC alleged no collusion between these companies, even though it found irregularities at each level. [If you feel that a manufacturer—or any other business you deal with—is making deceptive claims or claims that are objective, but not properly supported, you can submit a written complaint to the FTC: Alain Scheer, Division of Service Industry Practices, FTC, Washington, DC 20580; 202/326-3321—ed.]

Computer specialists, stereo buffs, and car enthusiasts have access to an abundance of technical information. Doctors can find out average-mortality figures for every procedure. There is no such equivalent for those selecting building products. A *Consumer Reports* for building construction is unlikely, says Beasley. "Buildings are so variable and components are hugely variable." Coming closest is the *Journal of Performance of Constructed Facilities*, which offers highly technical evaluations and case studies (Publications Fulfillment Department, ASCE, 345 East 47th Street, New York, NY 10017-2398).

Better information electronically?

"Red Flags" in Product Data

When product selection contributes to a building failure, an investigative engineer is often called in. Kimball Beasley has done more than 800 investigations with the Princeton, N.J., office of Wiss Janney Elstner, based in Northbrook, Ill. He recommends specifiers pay particular attention to the following product-related items.

Missing information: A

manufacturer may just throw a product into the marketplace and fail to give it technical support. You usually find this with small proprietary manufacturers. Research industry-association information and competing products to establish what tests are applicable. For too many products, suitable testing is not done, or testing was done, but not all the data is made available because it is not flattering to the product. **Composite systems:** The components of a system may be provided by several manufacturers and each component may perform individually, but the entire system may suffer huge incompatibilities. For example, when you bond a cement backer board—with very good properties, but high shrinkage potential—with a tile facing that also has good properties but little shrinkage potential, you could develop destructive stresses.

is saying abou

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-Steve Robertson, GAA Architects (7-person architectural firm)

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COMPUTER REVIEWS

Data Sources Star at A/E/C Systems

Sellers of data were on almost every aisle in Anaheim. Big or small, they're going to change the design process and the designer-client relationship.

By Steven S. Ross

The computers were faster and cheaper. So were the printers. Ways of keeping track of zillions of CAD files cluttering your networks were better. The 3D photorealistic images approached dazzling. But the biggest story at A/E/C Systems this year came from perhaps the smallest exhibitors: every one of them seems to be selling data—information on building products, furniture, construction costs (photos below). And there were many new tools for on-line collaboration between design-team members and clients.

The information can come to you on the Internet or on CD-ROM. It can come as raw data or as part of a sophisticated software package. You may not think you need it all, but lots of people are laying heavy bets that you do—or soon will. Those people work in organizations that include traditional publishers, vendors of construction products, CAD vendors, and professional societies such as the AIA. prospect. He was not alone. The point is that keeping competitive advantage gets harder as all architects, in small firms and large, gain access to much the same body of information at much the same low, but not trivial, cost. It also means that clients will expect a higher level of service. Why settle for one roof-material study, a client might say, if it is easy to provide dozens? And, Mr. or Ms. Architect, how about taking more responsibility for construction management, as-built documentation, and life-cycle costing?

As with so much of the news about information this past year, many of the offerings centered on the Internet—and particularly the World Wide Web. The excitement is not only about using the Web to gather information, it is also about using the Web to collaborate with clients and with other professionals across town, or across the planet.

Toward that end, Bentley Systems showed a copy of its MicroStation CAD software with a web browser built-in (Bentley licensed the into the drawing of an airport lounge. Scaling issues still have to be addressed, but it is clear where the technology is leading.

Autodesk took another approach, a plug-in viewer for AutoCAD files distributed over the Internet. The viewer takes advantage of the ability of Netscape Navigator to accept such "helper" or "plug-in" applications almost automatically.

Technically, that leaves Bentley ahead in the race to the Internet—getting information off the Net is tougher than viewing files of a specific format. But Microsoft expects to make version 4.0 of its browser, Internet Explorer, the standard interface for all Windows software by early 1997. Both Bentley MicroStation and Autodesk AutoCAD will probably take advantage of it or something similar in short order.

In fact, C-TAD Systems showed another Internet trick. It added a virtual reality modeling language (VRML) module to its • Some local AIA chapters, including the Boston Society of Architects, with its BSA Online at http://www.architects.org.

♦ Framework Technologies Corporation showed collaboration tools on the World Wide Web and company networks, at http://www.frametech.com.

Other approaches

Other offerings give some idea of the approaches that were shown toward providing information to design professionals:

A-E&C InfoNET runs an on-line BBS (bulletin board service) with project leads, marketing studies, and so forth. (Phone: 602/488-5440)

American Digital Cartography sells digital maps. (Phone: 414/733-6678)

Andersen Windows showed a new standalone Windows and Macintosh application for creating window patterns; plan, elevation and details export via DXF to CAD software. (Phone: 800/426-7691) (1 10110. 000/ 101 0000)

Autodesk Press showed its "Inside Track" training materials and McGraw-Hill/ Autodesk Data Publishing showed its Design-Blocks line of CD-ROM-based resources for architecture and other disciplines (the CDs were reviewed in RECORD, April 1996, page 59).

(Phone: 800/347-7707)

BST Consultants showed project-analysis and financial-management tools. (Phone: 800/726-3300)

Building Systems Design showed its Windows-based SpecLink (reviewed in RECORD, May 1996, page 52), CostLink, and life-cycle costing tools. BSD estimating software can also be seen on the R.S. Means web site.

(Phone: 404/876-4700)

The Canadian Wood Council offers software that aids wood-based design tasks. (Phone: 613/247-7077)

Compu-tecture offered MAD-CAD, for access to code requirements, building technology, and specifications. (Phone: 301/770-8595) Craftsman Book Company showed a Windows-based estimating program with 85,000-item database on CD-ROM. Its CD Estimator includes electronic data from six construction-cost databases the firm publishes, such as new construction, remodeling, plumbing, and hvac. The CD includes free, quarterly, on-line updates and an 80-minute instructional video. (Phone: 619/438-7828 ext. 305)

ViaGrafix (the same folks who sell Design-CAD) showed hundreds of video-training courses and 2D/3D symbol libraries. (Phone: 918/825-7555)

ESRI, the GIS software people, showed an ever-widening range of map data products. (ArcView was reviewed in RECORD, June 1996, page 54.) (Phone: 909/793-2853)

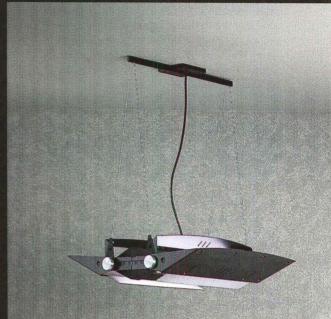
Kalin Associates showed its disk-based GreenSpec for environmental products; the firm also does CSI and MasterSpec on disk. (Phone: 617/964-5477)

John Wiley & Sons introduced its Architectural Graphic Standards on CD-ROM— 10,000 drawings from the Ramsey/Sleeper classic book's Ninth Edition. FLEXIBLE

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FLEXIBLE



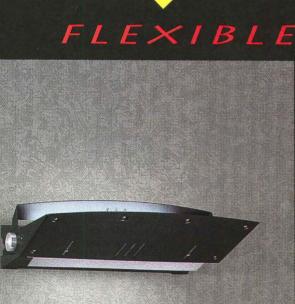
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NEW PRODUCTS

Trade Show Survey

New building products and contract furnishings were exhibited at several major trade shows in the first half of 1996, including the American Institute of Architects (May, in Minneapolis; next year, New Orleans), the Construction Specifications Institute (June, in Denver; Orlando in 1997) and NEOCON (always Chicago in June). We've chosen examples of unusual interest to include in this survey.

180. Flexible color options

A heavy-duty entrance system, the Therma Stile door incorporates a dual glazing gasket that lets the designer specify different paint colors on the interior and exterior. Shown here: Hartford Green outside, Pueblo Tan inside. Doors come in three stile widths for single and double-leaf configurations. 800/221-4169. EFCO Corp., Monett, Mo.

181. Flexible workspace

Reasons by Trans-wall is an interchangeable panel system designed to suit today's dataintensive and churn-prone office environment. Fabric-faced sections 4-in.-thick are easy to stack and snap together; work surfaces and storage units slide into place anywhere along a panel's horizontal support rail. Wire-connection and cable-space fittings meet all Category 5 and fiber-optic requirements, with labor-saving features said to be especially useful for "hoteling" applications. 610/429-3466. Reasons, Inc., West Chester, Pa.

182. Rice-paper safety glass

A new Sumiglass decorative option, made-tosize panels have real rice paper sandwiched between flat glass in a five-layer laminating process. Available in two degrees of opacity, rice-paper glass transmits light while obscuring detail. Other options: frosted or fabric interlayers. Suggested uses: shower doors, partitions, windows, and sidelights. 800/870-2519. North American Glass Fabrication, Sumiglas Div., Benton Harbor, Mich.

183. Modular private office

Almost an office in a box, ready to set up or move at the drop of a pink slip, the Kyo Cabin has walls of steel-framed, foil-clad, mediumdensity fiberboard and Lexan "windows" and sliding doors, topped by (optional) cantilevered ambient-light and sound diffusers that form a partial ceiling enclosure. Modular metal raceways carry multicircuit cabling and power outlets. The freestanding basic Cabin is 8- by 8-ft, but other sizes and configurations are possible. 512/310-9021. Kyo Corp., Round Rock, Tex.

184. Recessed ADA-compliant exit

Adams Rite introduced a low-profile bar that maximizes the clear-opening width of hollowmetal and metal-stile glass doors. Protruding only one inch from the door surface, the bar is nearly flush when depressed or dogged. Available in mortise and concealedrod styles, unit exceeds UL burglaryresistant standards, and can be specified in top-rod-only and fire-rated versions. Comes in 10 standard finishes, as well as customorder options. 800/872-3267. Adams Rite Mfg. Co., City of Industry, Calif.





181

185. High-performance, neutral-tint

A non-reflective, tinted, float glass, Super-Grey is said to minimize the effect of solar glare on interior tasks, such as VDT-screen use, and to reduce the need for blinds or other shading devices. Glazed in an IG unit with a clear inboard light, it has a low shading coefficient of 0.23. With a low interior reflectance as well, the glass won't distort views to the outside. Its neutral-black appearance is said to complement many exterior cladding materials. 419/247-4721. Pilkington Libbey-Owens-Ford Co., Toledo.

186. Heavy-use surfacing

Intended for commercial and institutional applications where solid-surface material might be appropriate but too costly for the budget, Nuvel sheet gives a seamless look to large-scale casegoods such as these sweeping seminar-room desks designed by Jung Brannen Associates. The matte-finish material comes in seven "fleck" colors; maintenance requires only a mild abrasive cleanser. Resin itself is made by General Electric. 800/FORMICA. Formica Corp., Cincinnati. Joan F. Blatterman This month we feature, among other projects, three American museums as different from one another in intent and realization as one could possibly imagine. The Museum of Contemporary Art in Chicago (pages 80-87), designed by Berlin-based architect Josef Paul Kleihues is, as writer Cheryl Kent points out, a Classically planned building in Modernist dress. It is also the latest chapter in the city's ongoing obsession with the architectural rigor of another visiting German, Mies van der Rohe, who came to Chicago in the late 1930s and practiced there until his death in 1969. As an outsider, Kleihues was in a privileged position to summarize the city's building tradition and, presented with one of the remaining magnificent downtown sites—bridging the density of North Michigan Avenue with the more bucolic landscape of a park that extends to Lake Michigan—he was provided a mighty platform for his vision. In Moshe Safdie's new home for the Skirball Cultural Center in Los Angeles' Santa Monica Mountains (pages 94-101), he presents a different experience to museum-goers. While the plan of an institution devoted to displaying Jewish artifacts and traditions is composed as a meandering journey through a variety of indoor and outdoor spaces, the overall effect is of miniature city rather than, as in Chicago, precious object. Venturi, Scott Brown and Associates' renovation and expansion of the Museum of Contemporary Art, San Diego (pages 88-93), takes another approach. Like Chicago, it has two faces—one purposely respectful to its historic neighborhood of La Jolla, and another more exuberant that opens to the Pacific Ocean. Incorporating an Irving Gill house of 1916, the museum's split personality is furthered by its meld of old and new. Together, the three projects reveal that the essential challenge of museum design is not to stage a competition between art and architecture, but to reveal how an institution sees itself. Karen D. Stein

Manufacturers' Sources listed on page 120

Kleihues Defies Skepticism to Create Chicago Landmark

One of the most debated buildings of the year, the new Museum of Contemporary Art in Chicago represents German architect Josef P. Kleihues's American debut. Is it too Classical or too reserved? Or does it update the city's rich architectural heritage?

By Cheryl Kent

t took an outsider to see what Chicago has to build on. After many years of buildings that denied the city's powerful architectural traditions, Berlin-based architect Josef Paul Kleihues has designed the handsome new Museum of Contemporary Art (MCA), using the past as the foundation for an inspired essay in Modernist design. Kleihues has borrowed Classical forms and proportions to carve out a contemporary building. Deep into the 1990s, Kleihues's MCA seems to summarize a composure and restraint that has blessedly come to us after an era in which the over-the-top, program-be-damned hedonism of museums like Peter Eisenman's Wexner Center and Frank Gehry's Vitra Museum has been celebrated.

This is not to say the MCA is a 1990s reprise of a 1950s building or, for that matter, something much older. There is nothing *retardataire* about the building, although the entire form of the museum is a reinterpretation of Classical elements: there is the building's strict symmetry, its two pedestals for which sculptures are being commissioned at either side of the entry, a forecourt, and a cornice, if a rather weak one. The use of materials alone is enough to distinguish the building, marking it as singular to its age. Cast-aluminum square plates are affixed to the building with gleaming polished bolts and serve as cladding for all but the ground level, which is sheathed in finely finished Indiana limestone. The detailing is exquisite, the geometry precise. And the cast aluminum is a great relief from the thin-veneer polished granite that has been pasted like so much wallpaper up and down this city's once-beautiful North Michigan Avenue, diminishing a gorgeous stone to the gaudy and commonplace.

Formidable precedents, however, remain behind the surface and, indeed, Kleihues cites the Acropolis and Karl Friedrich Schinkel's Schauspielhaus as the MCA's antecedents. Just as important is the work of another German outsider, Mies van der Rohe, who built on Chicago's legacy of Modernism and took it into the post-war era.

The museum's location is superb. It stands one block east of the retail hustle along North Michigan Avenue, on a site donated by the state of Illinois where an armory building formerly stood. (In its earlier incarnation, the museum operated from a renovated bakery at a less prominent address on Ontario Street where it was founded in 1967.) There is a pretty, recently landscaped public park to the west and, on the opposite side of the museum, another park (miserable looking and neglected) extends east all the way to Lake Michigan. Thus the

Cheryl Kent is a former correspondent with Progressive Architecture and writes about design from Chicago. museum is a freestanding structure, visible to everyone in the vicinity and possessor of some of the most beautiful views anywhere in Chicago. As North Michigan Avenue has pulled retail north from the older urban center about a mile away, the MCA marks one of the first important new institutional buildings to follow this northward drift.

The benefits of the MCA siting are more immediately apparent than the drawbacks. But the site offers no forgiving utilitarian elevation where loading docks, parking, and services can be secreted. These had to be incorporated in a genteel fashion on the north and south sides of the building (the dock drive cuts through the width of the building). Some elevations work better than others. The south side is far less successful than the north, for example, as much because of the security entries and the unhappy asymmetrical fenestration on a building driven by geometry. This will improve when the trees fill out. Medieval-looking black gates lead to the dock and a parking area beneath the stepped sculpture garden at the back of the museum.

The main entry to the MCA is up a grand flight of stairs, which has proven controversial. At the top of the stairs, the view to the lake through the building and across the sculpture garden opens and, turning back, one can see the city laid out to the west. The stairs, which some have criticized as too imposing and others as too Classical, are, to my mind, absolutely appropriate to such an institution, since they work both programmatically and esthetically. They stand in mute reply to the Museum of Modern Art (MoMA) in New York City. Ever since MoMA was built in the 1930s, it has been common to express art's accessibility with street-level entryways. Without suggesting that art should be deified, Kleihues makes it plain that contemporary art deserves to be elevated along with the old masters. Now that the museum has opened, the stairs are animated by people sitting on them and musicians playing in front.

Kleihues's approach is very different from Mario Botta's in the San Francisco Museum of Modern Art (SFMOMA) [RECORD, November 1994, pages 74-82], where the entry level is occupied by a specialevents room, auditorium, bookstore, and café. To get to the art at SFMOMA, you must take an interior stair, albeit a dramatic one. The unspoken implication is that fund-raising and money-making come first and art second. Indeed, it is instructive to compare the MCA with SFMOMA. Both have similar programs, are designed by foreign architects who had never worked in the U.S., and are important cultural additions to major cities. While the MCA captures the essence of Chicago's architectural spirit, SFMOMA has been criticized as being a foreign object aloof from its setting and local building traditions.

Planning is plainly one of Kleihues's fortes. Throughout, the MCA has an enviable compact quality and completeness of thought. No longer simple art warehouses with dignified facades as they were early in this century, museums—contemporary ones in particular—must now accommodate works of tremendous scale, as well as temporary and traveling exhibits that often compete with the usual circulation patterns. Room must be found for video, dance, and other performances—all accepted contemporary art forms—together with the party rooms for fund-raising. (*Text continued on page 86*)

Museum of Contemporary Art Chicago, Illinois Josef P. Kleihues, Inc., Architect A. Epstein and Sons, International, Associate Architect

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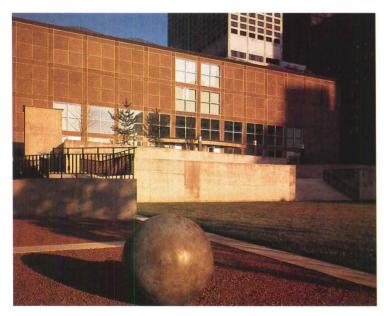
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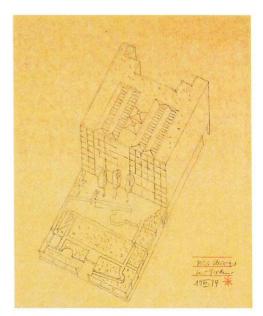




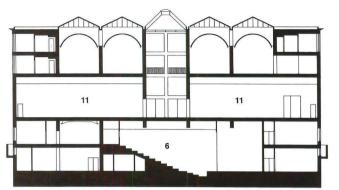
The Museum of Contemporary Art has two main public faces: the west-facing main entrance, a block from the central Chicago artery of Michigan Avenue (top left), and the east-facing sculpture terrace overlooking Lake Michigan (middle and bottom left and opposite). The building's footprint and the sculpture garden are both 184-ft squares. Kleihues based his elevations on the Classical tripartite configuration of base, wall, and cornice. In the front, a grand staircase, set 26 feet back from the structure's front edge. establishes a podium for the second-floor lobby and galleries and offices located above. The 16-ft-high base is clad in 2-ft-square Indiana limestone panels meant to echo the color of the nearby historic Water Tower. The panels are 4 inches thick and are attached by countersunk screws, centered in each slab. Kleihues says the fastners are an allusion to Otto Wagner's 1906 Postsparkasse in Vienna.

For the middle zone of the wall, the architect initially considered using one-inch-thick lead sheets, but the material's pliability and toxicity precluded its use. Instead, panels of cast-aluminum, intended to patina with age and the effects of Chicago's damp climate, were chosen. Manufactured in El Paso, Texas, the panels were sandblasted with fine iron filings that left a residue in the softer aluminum surface. Four countersunk screws, placed in the corners, are used to attach the panels. Fixed, 11-ft-square windows, custom-designed for the project, have anodized aluminum frames.

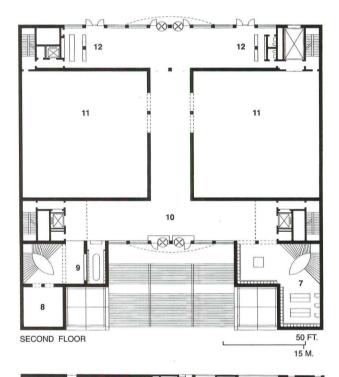
A protruding cornice creates a deep shadow on the building, giving a definite cap to the structure. A sketch by Kleihues shows his early vision of the complex (below).

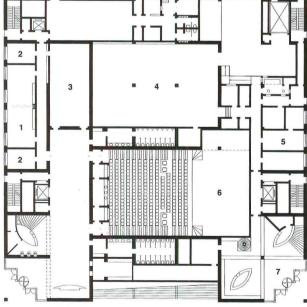






NORTH - SOUTH SECTION





FIRST FLOOR

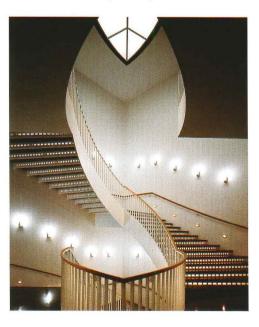
Classroom
 Conference

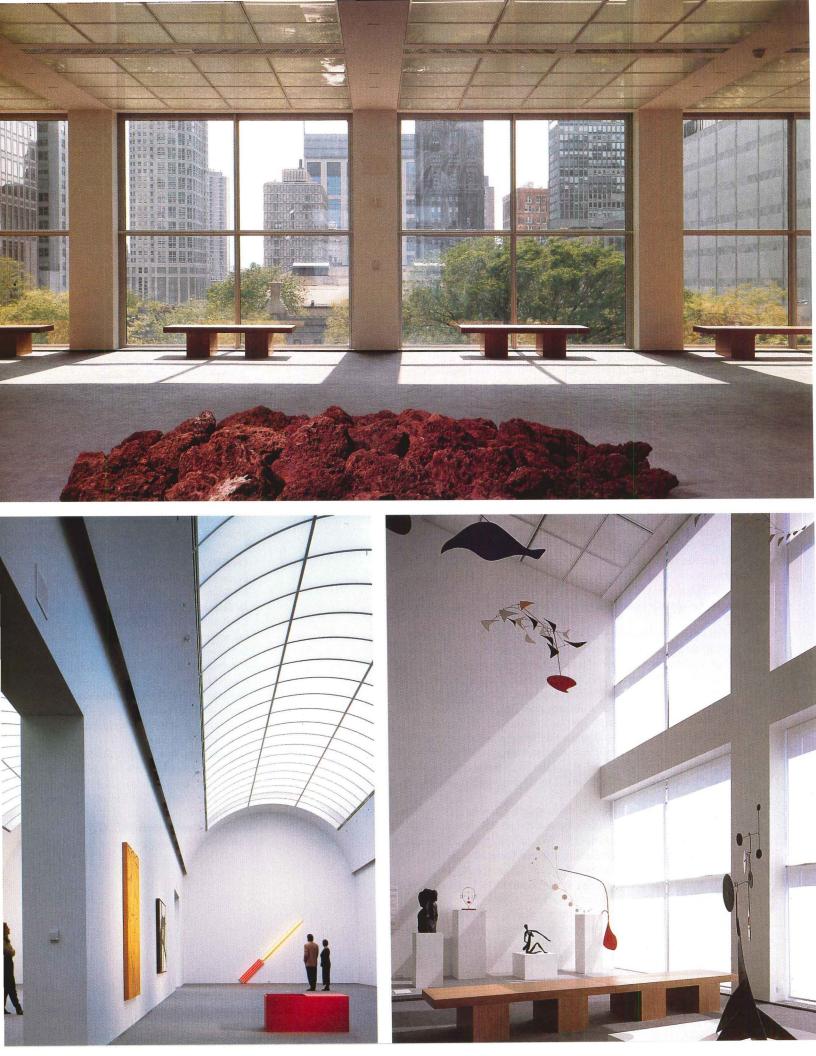
- 3. Board room
- 4. Art storage
- 5. Office
- 6. Theater
- 7. Museum store
- 8. Orientation 9. Information
- 9. Information 10. Great hall
- 11. Gallery
- 12. Café

Kleihues likens his organization of the museum's interior spaces to that of Louis Sullivan's Carson, Pirie, Scott store in its placement of various functions within a simple geometric plan. The MCA, says Kleihues, "is also a basic shape, a square in this case, with seven bays on each side. I used the corners to plug in almost everything we needed for vertical" circulation, then centered the main stair on the front of the building and established a strong east-west axis through the building (plans left). Shipshaped interior stairs (below) occupy the northwest and southwest corners.

While the ground floor contains the auditorium, classrooms, and the first level of the gift shop, most visitors walk up the 32 steps of the grand stair and enter the museum on the second floor where they find the main lobby, dining, and access to the outdoor sculpture garden. Two large galleries, each with 5,800 sq ft of space, house temporary exhibitions on this floor. The third floor features a gallery for video and media arts. The museum's permanent collection and exhibitions of works on paper are in galleries on the fourth floor. The top-lit, vaulted galleries (bottom, opposite) provide 16,000 sq ft of exhibition space.

The interplay between transparency and containment is a theme that runs through the museum's interiors and starts as soon as visitors climb the main stair and get views through the building to Lake Michigan. "But as soon as you enter the exhibition space, you are separated," explains Kleihues, "you are in some way isolated with the art." A foyer (top opposite) outside the exhibition areas offers views of the city.





Continued from page 80

Little space is wasted in the MCA. If the need for the 300-seat theater and video galleries was obvious, it is delightful to find them incorporated rather than added on, as is the case with older museums trying to catch up. The theater is at grade, as is the handicapped-access entry, the group-tour entry, classrooms, and, on the opposite side of the building, the gift shop. Tucked into the two west corners are beautifully detailed staircases which recall the Guggenheim and which wind down to fish pools at the first level.

Aside from its logic and simplicity, the plan's beauty lies in its separation of art from the attendant services of tours, children's amusements, and retail. On entering the museum at the second level, the visitor encounters the heart of the institution—the art. The foyer is a grand four-story atrium filled with daylight. Beyond, on either side of the hall, two large galleries—each two stories high—are designed for traveling or temporary exhibits. These are illuminated by light fixtures, but convincingly simulate daylight. Four doublestory vaulted galleries on levels four and five are home to the permanent collection. There, a complex computerized system admits filtered daylight, keeping the level constant by compensating with light from fixtures as the sun passes overhead. The lighting is changed to correspond to the seasons and can be fine-tuned when necessary. I found it to be quite good on the several days I visited.

Problems occur, though, in the sculpture garden, where Kleihues tries to break his own geometry but where the curves and angles he introduces are jarring and the free feeling he wants to inspire feels forced. Look at Mies's Barcelona Pavilion—deliberate asymmetry can accomplish more with less. Kleihues's garden walls, together with the low planters running along the north and south sides of the museum, are made of cast concrete. The craftsmanship is poor; cracking and patching is evident already. The planters are closer to pedestrians than any other part of the museum and give a poor impression. They should have been limestone. As it is, they give off a budget-cutting odor. And for all his strengths, Kleihues is not a landscape architect. The variety of plantings is not great enough nor the arrangement imaginative enough. The masses of rhododendron, which have a short blossoming season here, merely put one in mind of a spring photography session.

In addition to criticizing the design itself, some people in Chicago grumbled that an outsider won the commission for the MCA. Yet no architect could have dreamed of a better, more fair process. No architect was asked to design something for nothing. Rather, a selection committee, which included critic Ada Louise Huxtable, Pritzker Prize selection-committee chairman Bill Lacy, and Gene Summers, former architecture dean at the Illinois Institute of Technology, traveled around the world to interview the six finalists and see their work. In addition to Kleihues, the finalists were: the Argentine-American Emilio Ambasz, Tadao Ando and Fumihiko Maki from Japan, Christian de Portzamparc from France, and Los Angeles-based Morphosis.

In the end, Kleihues has shown he understands Chicago. "In Chicago, it is not necessary that buildings jump and dance. There is no need for any decoration or any loud design." When he says this, Kleihues is referring in part to the art and letting it come forward while the architecture stands as a backdrop. But he is also referring to Chicago's architectural reputation, one of the most distinguished in the nation. Perhaps it took someone like him—a foreigner, an outsider—to come look at this city and see what in it deserved to be recalled and what traditions were worth developing. He has done it—recalled the great Modernist tradition without copying it. He has given this city a proud and lovely building that will age with dignity.

"Simplicity, openness, quiet," are the words Kleihues uses to describe his approach to the museum's interiors. "I would never build a museum that would interfere with the visitor's ability to concentrate on art." This attitude is manifested in spaces such as the museum's central axis where height and light are the key elements in creating the setting for pieces such as James Lee Byars's "Golden Sphere" (opposite).

Eschewing color and architectural high jinks, the designers tried to eliminate as many distractions as possible. "As a visitor, you should come to a dialog with the art without being irritated by people running up a ramp, or going down stairs, or riding a transparent elevator—as some architects like to do," states Kleihues. To reinforce this attitude, the architects limited themselves to a simple palette of materials, including plaster-coated drywall, white-oak paneling, impala black granite for lobby flooring, and carpeting, concrete, or white oak for gallery floors.

With 147,000 sq ft, the new MCA has almost seven times the total space as its old facility on Ontario Street. The new building also allows the museum to present temporary exhibits while at the same time displaying portions of its permanent collection of 7,000 objects.

Credits

Museum of Contemporary Art Chicago

Architect: Josef P. Kleihues, Inc.—Josef P. Kleihues, architect; Johannes Rath, project manager; Greg Sherlock, Mark Bastian, John DeSalvo, Pablo Diaz, Arden Freeman, Haukur Hardason, Richard McLoughlin, project team

Associate Architect/Engineer: A. Epstein and Sons International, Inc.—Michael Damore, executive vice president; Mark Streetz, project manager

Consultants: Ove Arup & Partners (design engineer); Claude R. Engle (lighting); Steven Keller and Associates and Schiff & Associates (security); Daniel Weinbach & Partners (landscape)

General Contractor: W.E. O'Neil Construction Company



Irving Gill Reconsidered

Museum of Contemporary Art, San Diego La Jolla, California Venturi, Scott Brown & Associates, Architect

Ten years after the project began, Venturi, Scott Brown & Associates has brought new vigor to a historic building, remaking Irving Gill's 1916 Scripps House into a world-class home for art

an Diego's Museum of Contemporary Art (MCA), in La Jolla, California, challenges conventional curatorial notions: great works of contemporary art need not occupy an institutional "neutral white cube," as museum director Hugh Davies calls it, nor be isolated from nature. This 55-year-old institution presents itself with such modesty of scale and dignity of demeanor that even after its renovation and expansion a visitor might almost overlook its daring. Almost, that is—until having passed through the residential enclave it fronts along Prospect Street you reach a modest-size west-facing gallery or, perhaps for the lucky few, arrive at Davies' office, both with panoramic Pacific Ocean views.

Certainly the intimacy of this museum is aided by the fact that the original building, designed by Irving Gill in 1916, began life as a home for Ellen Browning Scripps, a maverick patron of progressive causes in the burgeoning seaside community. In keeping with her civic-mind-edness, Scripps' estate in 1940, eight years after her death, lent her vacant house to a group of local artists for the display of their work. The debut show proved so successful that a non-profit art center coalesced, purchasing the property.

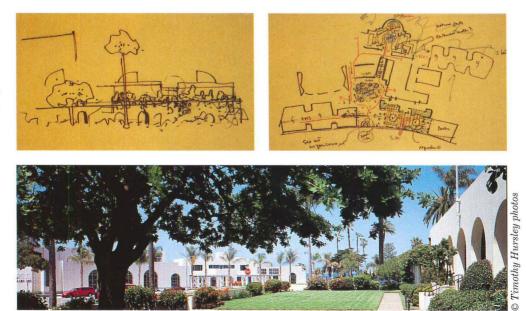
As a museum, the Gill building underwent several alterations, including a 1950 transformation of downstairs living rooms into galleries and second-floor bedrooms into offices. In 1959 another renovation cloaked the Gill facade. Both projects were by San Diego architect Robert Mosher of Mosher & Drew. By the time Davies took over as head of the museum in 1983, the institution was in need of additional space to exhibit its growing collection. An extensive architect search

led to the 1986 selection of Venturi, Scott Brown & Associates (VSBA). VSBA was chosen, reports Davies, partly for its facility with history, and partly for principal-in-charge Robert Venturi's longstanding admiration of Gill, for whom he coined the term "enigmat" for his enigmatic blend of Modernism, Arts and Craft, and Spanish Revival. (Not surprisingly, VSBA is known as an equally adept style mixer.) Almost simultaneously, VSBA was awarded the coveted and totally absorbing commission to design the new Sainsbury Wing of London's National Gallery of Art [RECORD, October 1991, pages 72-79] and so offered its California client the option of reconsidering its selection. MCA instead chose to wait, even agreeing to spend more on VSBA's fee than if it had proceeded with a less internationally prominent choice, convinced of the selection's appropriateness. In fact, over the years between design and the museum's reopening, patience prevailed on both sides, as an activist community group sought to block what they saw as museum "imperialism" and as the difficulties of fund-raising during a recession curtailed the building program.

After 10 years, the result is a complex that puts Gill in a new context. While VSBA recaptured the obscured Gill facade, the architect did not try to turn back time. The former Scripps house, while still the centerpiece, is now an element in a larger composition that seems both derived from it, and distinct, thanks to exaggerated shifts of scale between "old" and new: the arched windows of the VSBA wings are Gill-like in form yet are filled with a thickly-mullioned glass; the chunky columns of the pergola are fattened versions of those at Gill's Woman's Club across the street.

Although the Scripps House's front was imprinted in many an architectural historian's mind, its lesser-known back has been transformed by VSBA's windows and a terraced staircase leading to the garden and overlooking the beach. Made into a giant frame on the landscape, the changed MCA sends a message: the contemplation of art is, like a window on the ocean, a view to the infinite. *Karen D. Stein*

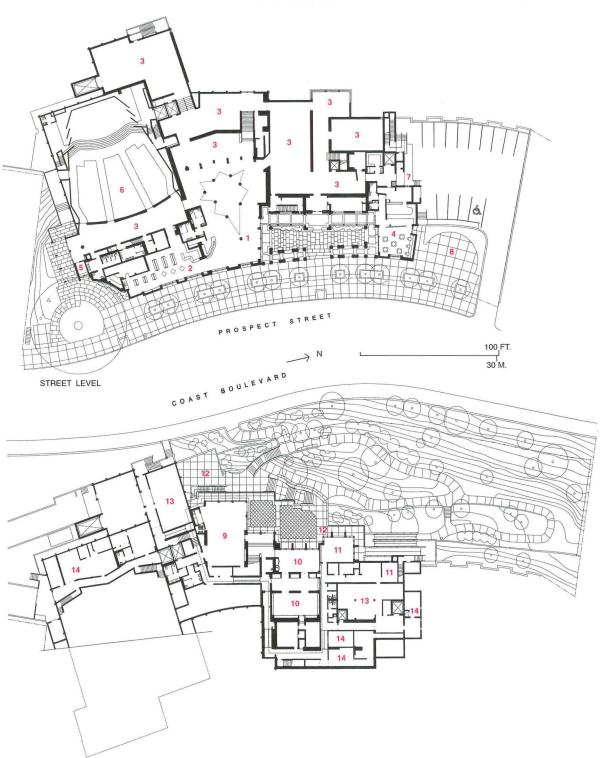
The renovated and expanded Museum of Contemporary Art, San Diego, sits in a precinct of four Irving Gill buildings (below) that includes his Woman's Club across the street. Robert Venturi's late 1980's sketches show VSBA's response to the 1916 structure.







- 2. Bookstore
- 3. Gallery
- 4. Cafe
- 5. Box office
- 6. Auditorium
- 7. Loading
- 8. Sculpture court
- 9. Lecture room
- 10. Library
- 11. Office
- 12. Terrace
- 13. Storage
- 14. Mechanical





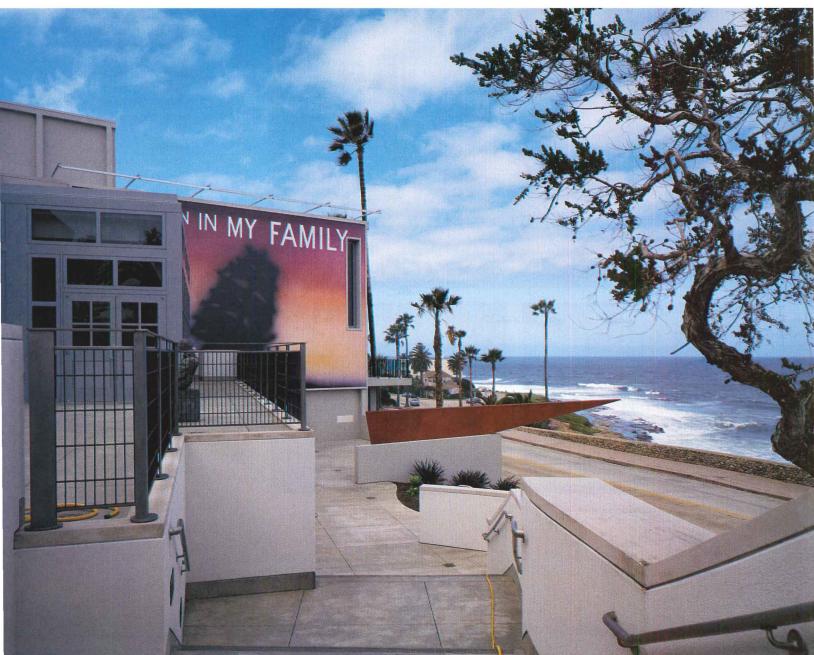
Up Close

Challenges: Re-establish the museum's prominence within La Jolla, California's Irving Gill precinct. Recapture the 1916 Gill facade, formerly the Ellen Browning Scripps House, within an expanded, reinvigorated whole.

Program: Provide additional exhibition, artstorage, library, and bookstore space. Add a cafe, update the uses and facilities of the auditorium, and create a grand, central space for public functions. **Solution:** Playing up the contrast of the site's front and back, the renovated Museum of Contemporary Art is purposely two-faced. Along Prospect Street, where it faces other Gill buildings, a "restored" original facade is flanked by new arched wings of the cafe to the north and a shop and auditorium to the south. In the back, where Gill-like austerity gives way to dramatic Pacific Ocean views, a VSBA-designed stair steps down the bluff toward Coast Boulevard.Total cost: \$9.25 million. Plans for a northwest wing of galleries await funding.

Artist Ed Ruscha's acrylic on PVC-coated fabric "Brave Men Run in My Family" echoes the the drama of the ocean-front site (opposite). A new terraced path allows views back to the building.













Venturi, Scott Brown & Associates initially conceived the public foyer as a domed space. Though the approach was eventually eliminated by La Jolla's 30-foot building-height limitation, vestiges of the idea remain in the white neon-ribbed fins that appear to have collapsed into an oval cutout in the ceiling (opposite). The seven-pointed star, meant as a beacon of the museum's transformation, dominates the trapezoidal lobby. Venturi modeled his solution on Michelangelo's Capitoline Hill in Rome, a favorite reference. The terrazzo floor is sprinkled with giant dalmatian dots. Artist Alexis Smith's "Men Seldom Make Passes at Girls Who Wear Glasses" is on view. A new cafe overlooks the entry pergola (top left). Meeting rooms and galleries have ocean views (middle and bottom left). At the stair to the lower level, a view through time and place: a VSBA-scale window into a Gill gallery and out to the sea (bottom right).

Credits

Museum of Contemporary Art, San Diego La Jolla, California **Architect:** Venturi, Scott Brown & Associates—Robert Venturi, Denise Scott Brown, principalsin-charge; Ann Trowbridge, project manager; John Hunter; project architect; Brian LaBau **Associate Architect:** David Raphael Singer **Engineers:** Lopez Dunn

Ramirez & Associates (structural); Engineering Group (mechanical); Ila + Zamitt (electrical)

Consultants: Garbini + Garbini (landscape); Fisher Marantz, Renfro, Stone (lighting); John Manning (food service) General Contractor: Centex

Golden Construction Company



City on a Hill

1 1

Moshe Safdie builds a miniature town in the Santa Monica Mountains that tells the story of American Jews.

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Skirball Cultural Center Los Angeles, California Moshe Safdie and Associates, Architect Albert C. Martin and Associates, Associate Architect

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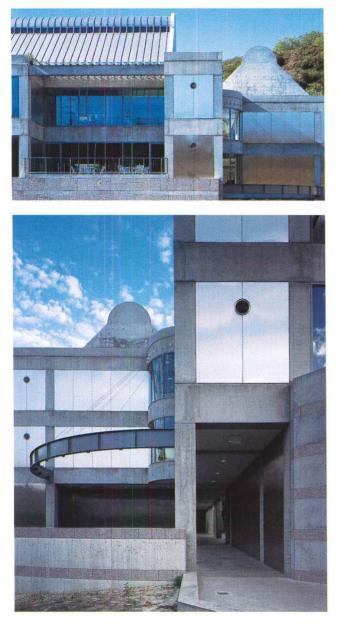
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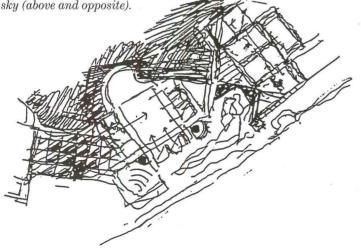
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Excerpts from Moshe Safdie's sketchbook show early concepts (below and opposite). Stainlesssteel roofs are meant to reflect sky (above and opposite).

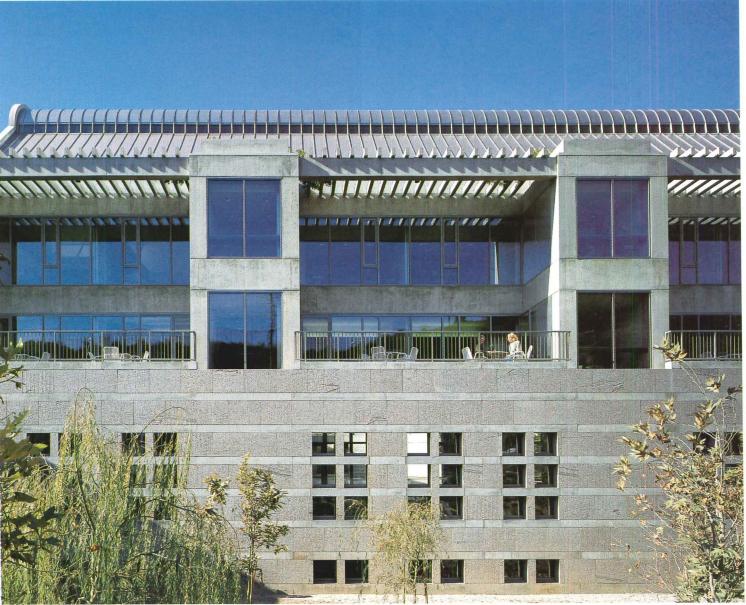


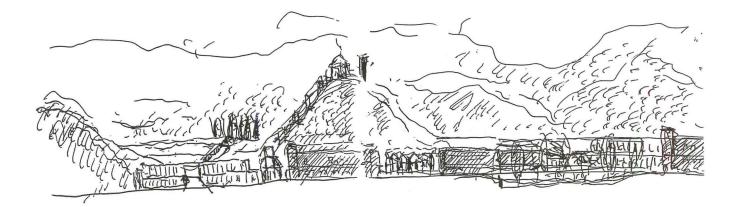
he Skirball Cultural Center, an outgrowth of the Hebrew Union College in Los Angeles, has its first real home in a Moshe Safdiedesigned, 125,000-square-foot, \$65-million complex. Located on a 15-acre site in the Santa Monica Mountains, it's a few ridges and one San Diego Freeway exit away from Richard Meier's magnum opus, the Getty Center—six buildings on 110 acres scheduled to open to the public in the fall of 1997 [RECORD, October 1991, pages 80-87]. Due to their proximity and their roles as cultural "cities on a hill," comparisons between the Skirball and the Getty are inevitable and, for the former, somewhat unfortunate. Factoring in issues of size and budget (the Getty's official budget has already topped \$700 million), the comparison is certainly not stacked in Skirball's favor, even though it does plan to benefit from the run-off of the Getty's projected 1.5 million visitors per year.

Yet the notion of each commission as a masterwork by its particular architect—the culmination of a decade or more of mature study—resonates in both complexes. Skirball, awarded to Safdie in 1985 after an extensive architect search, is the Israeli-born, Canadian-national, Boston-based architect's first major civic project in the United States. Also, he says, it deals with an issue that has been on his mind since the completion of his controversial Habitat housing project at the Montreal Exposition of 1967: authenticity. For Safdie, the search for authenticity in his architecture raises two lingering, if somewhat rhetorical, questions: "Does [a] building make the most of the place?" and "To what extent does the program generate the building's form?"

As answered by Uri Herscher, founding president and chief executive officer of the Skirball Cultural Center, the complex is a three-dimensional representation of his institution's mission, born from its site. "It wasn't a building project," says Herscher of the first five years of working with Safdie. "It started with a programmatic ideal. It became a building project." The program of the center-combining exhibitions depicting Jewish artifacts and traditions (the core collection is called "Visions and Values: Jewish Life From Antiquity to America") with a broader-ranging cultural and educational series of lectures, concerts, and performances-is equal parts tradition and invention. What emerged as its organizing form: bunker-like masonry geometric shapes topped with stainless-steel gables with barrel tops that are meant to mirror the sky, presents an unmistakable public image of solidity and reflection. Combining cast-in-place concrete with stainless steel, pinkish stone, and green slate, Safdie created a hybrid of foreign culture and new place-the architectural equivalent of an immigrant.

While the organization of the Skirball's parts and pieces-the route from parking entry; the overlap and, at times, unclear distinction between exhibition, conference center, and scholar-dedicated areasis confusing to the first-time visitor, the plan's looseness is, perhaps, a deliberate attempt to imply that the path of Jews to America has not been a linear one. The sense of meandering through time and place is reinforced by a series of courtyards that lead from outside to inside to outside not only to make outdoor "living rooms," but also to conjure an ancient Middle Eastern town tucked among the hills. In this project, Safdie dedicated himself to expressing the virtues of a place whose mission is both educational and symbolic. In wrestling with the overt symbols of Judaism, he noted that, over history, "Jews built in the architecture [style] of the place [they lived in]," noting that "a Jewish architecture," if such a thing existed, "would come out of a respect for nature." In trying to invent one, the architect embraced a cause that, like the struggle for authenticity, is as personal as it is professional. Karen D. Stein







Up Close

Challenges: Incorporate what was once a museum of Judaica and Jewish art, located on the Los Angeles campus of Hebrew Union College, into a cultural center with a more extensive program whose primary mission is, according to founding president and chief executive officer Uri Herscher, "to tell the story of the Jewish people from antiquity to the present day, with particular emphasis on the American experience."

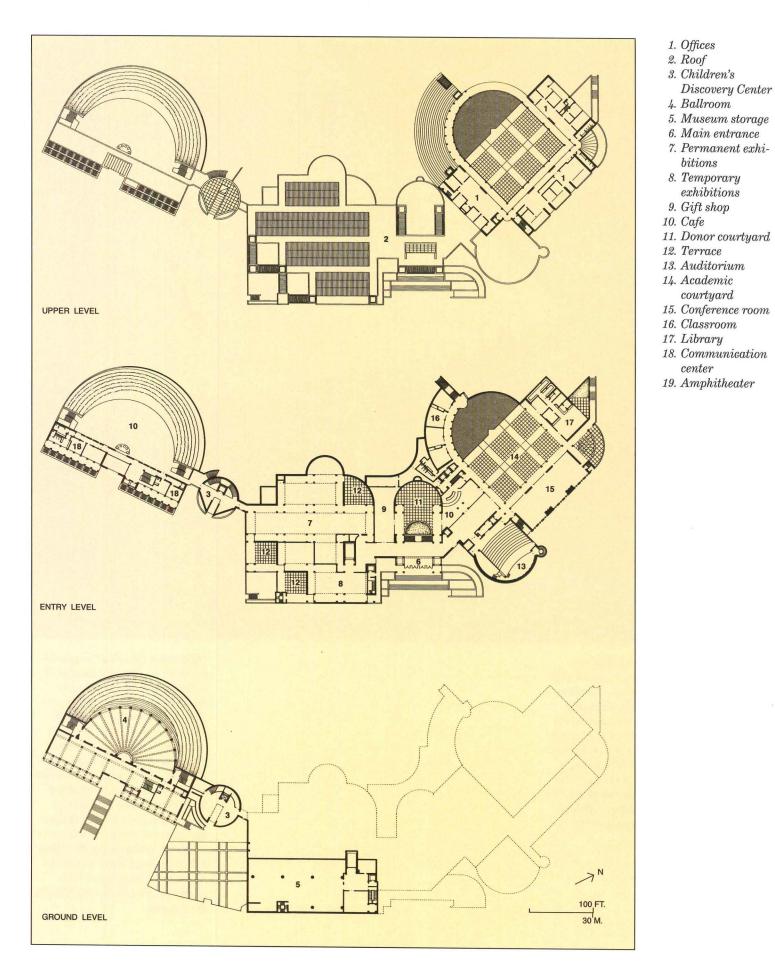
Program: Provide core collection and temporary exhibition space; a conference

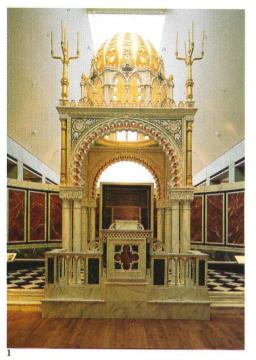
center with adjoining meeting rooms, classrooms, and auditorium that can be rented to appropriate outside event organizations; curatorial, administrative, and staff offices; a restaurant, a museum shop, and outdoor plazas.

Solution: Following the acquisition of a 15acre site in the Santa Monica Mountains in 1983, Herscher and the Skirball trustees embarked on an extensive search for an architect, which resulted in the 1985 selection of Moshe Safdie, architect of the new Hebrew Union College campus in Jerusalem. The \$65million,125,000-square-foot Skirball Cultural

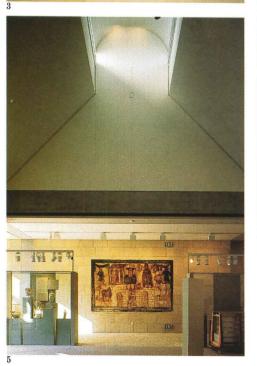


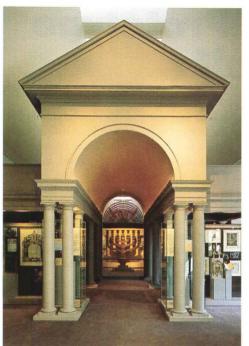
Center complex is organized around two central massing elements: the museum with 13,000 square feet of permanent collection space, and 4,000 square feet for changing exhibitions, and the education center, which includes a 300-seat auditorium, each located adjacent to its own parking facilities. Linked by a public foyer and a series of trellised courtyards that overlook the mountains, the forms are clad in cast-in-place concrete with infill panels of pinkish clay stone, stainless steel, and green slate. Roofs are covered in stainless steel. Offices and the education center overlook an internal courtyard enhanced by the lilac-colored flowers of jacaranda trees and a lily-filled pond (opposite top). The museum foyer overlooks a courtyard with a blue enamelon-steel sculpture by Vera Ronnen-Wall inset into a curved concrete wall (opposite bottom left). Throughout the complex trellises create a play of shadow on the paved plazas of outdoor reception areas (opposite bottom left and above), while the stainless-steel gables project their profile against the Santa Monica Mountains.















"A story told through objects," is how Skirball Cultural Center president Uri Herscher describes the exhibition component of his institution (photos 1, 2, 3, and 5), which depicts the lives and traditions of Jewish people, particularly those that have immigrated to the U.S. Permanent and changing installations include objects, photographs, film, and sound recordings, so a variety of lighting types is employed, including the diffused daylight admitted through the barrel vaulted light monitors (4) and skylights in the office block (6).

Credits

Skirball Cultural Center Los Angeles, California **Owner:** Hebrew Union College Architect: Moshe Safdie and Associates-Moshe Safdie, principal-in-charge; Isaac Franco, Jim Herold, Ken Janson, Steve Baker, Jeff Jacoby, Hugh Phillips, project team **Associate Architect/** Engineer: Albert C. Martin and Associates **Consultants:** Emmet L. Wemple & Associates (landscape); Dithmer & Krabbendam (interiors); Jean Jacques André Consultants (exhibition); Fisher Marantz Renfro Stone (lighting); Paul S. Veneklasen and Associates (acoustical); Chapman Ducibella Associates (security); Richard D. White (specifications); Jon Roll & Associates (signage) General Contractor: C.L. Peck/Jones Brothers

Construction Corporation

An Industrial Prototype That Sells Itself

arshall McLuhan would have loved it: a building for selling and distributing building products that's made with the products it promotes. And the architects who designed the building also helped develop one of the primary building products it uses. Talk about the medium being the message!

Designed as a prototype for a series of regional sales and distribution centers in Germany, the Sto AG depot in Hamburg goes beyond its humble industrial-building type to become an important element in the company's marketing strategy and a kind of three-dimensional advertisement. Sto, a German manufacturer of stucco, wall-cladding systems, and paint, wanted to use the building to integrate sales, product display, distribution, and customer training in one facility, at the same time selling directly to architects and its usual market of contractors and builders.

To get the attention of architects, the company "deliberately chose to work with an internationally known architect," says Jochen Stotmeister, chairman of the board of Sto. Stotmeister had been impressed by the work of James Stirling Michael Wilford and Associates, especially the firm's buildings at Harvard, Cornell, and the University of California at Irvine, which all used Sto products. After Stirling's death in 1992, Sto became one of Michael Wilford and Partners' first clients and, indeed, the Hamburg depot is the firm's first completed project.

To provide flexibility so that future versions of the prototype can fit on a variety of sites, the architects broke it into four discrete components-a warehouse, an office wing, an exhibition area, and a customer-training pavilion. The location of each can vary to meet specific site conditions (diagrams, opposite right). "We standardized the four pieces, but they can be assembled in different ways," explains Wilford.

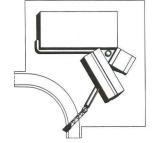
Like most industrial buildings, this one is set in a nondescript area on the fringe of town. "One of the key design issues," explains Wilford, "was how to establish the identity of the company in this featureless urban environment." By giving each of the depot's four components its own form and primary color, the architects made sure the complex has more visual impact than its relatively small size (35,000 sq ft) would normally command.

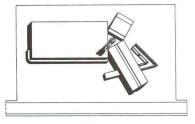


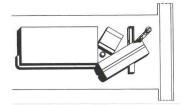
Designed as a kit-of-parts, a new distribution center in Germany can be repeated on other sites.

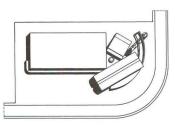
"We wanted the building to promote the company's products," says Wilford. Working with Sto, Wilford and his associates developed a new prefabricated cladding system that uses composite panels made of insulation, stucco, and weatherproofing. The panels are delivered to the site with slotted fittings installed and are bolted directly to the building's steel frame. Angled trapezoidal insulation planks inject a dynamic quality to the new product. "Rather than conceal the prefabricated nature of the building, we wanted to celebrate it," says Wilford. The architects had wanted to use the cladding system for the building's roofs as well as its walls, but the technology wasn't quite ready to be pushed that far, so sheets of aluminum were used instead.

Like many buildings today, the Sto depot must work for vehicles and people. Orders can be taken either at a "drive-up" window near the entry or inside at the operations counter. Orders are delivered to customers' vehicles at the warehouse's glazed doors. What's more surprising is the quality of the environment for customers and staff. Not many industrial-supply buildings have a small café or a garden protected from the street. And sales staff rarely get light-filled offices and a second-story courtyard for themselves. *Clifford A. Pearson* Sto Regional Depot Hamburg, Germany Michael Wilford and Partners, Architect



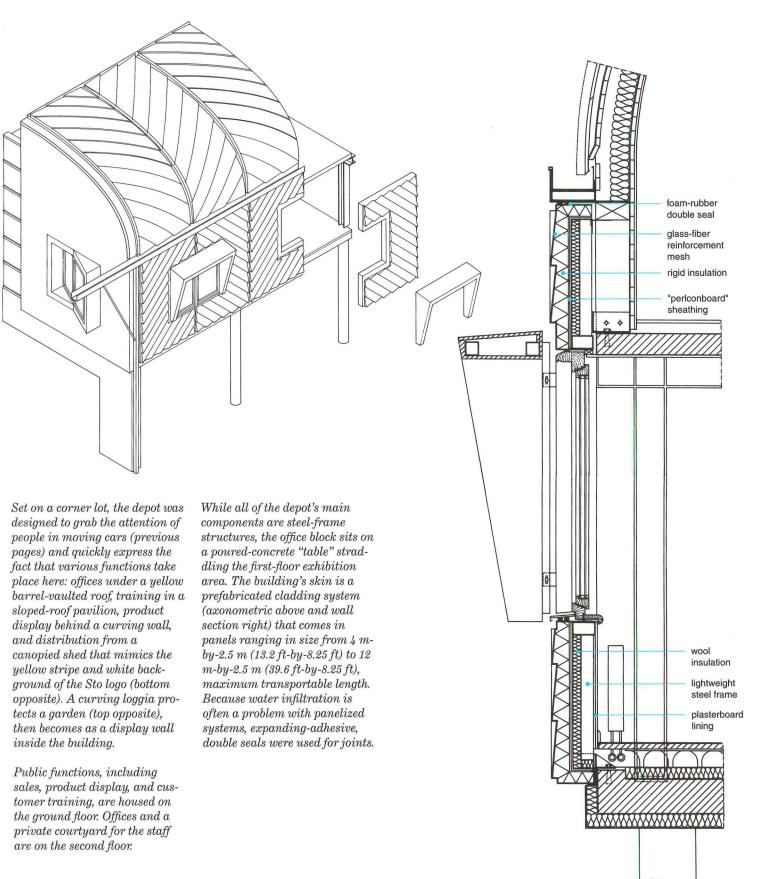




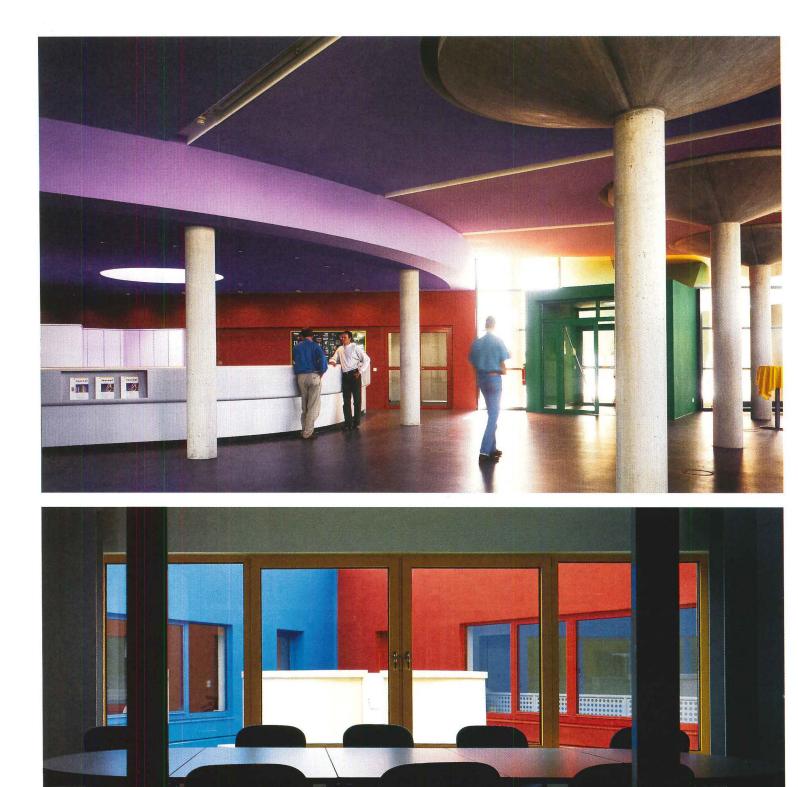


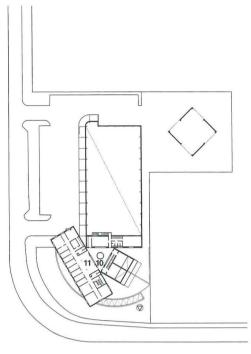




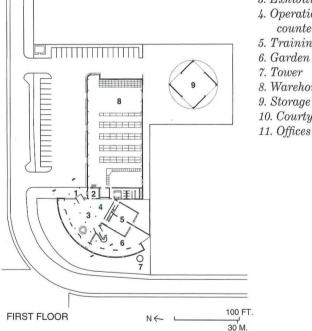


OFFICE BUILDING WALL SECTION









 Drive-up orders
 Exhibition
 Operations counter
 Training
 Garden
 Tower
 Warehouse
 Storage
 Courtyard

1. Entrance

The heart of the depot is the operations counter (opposite top), located in the triangular space where the building's four main components come together. While the components may relate to each other in a variety of ways in future incarnations of the prototype plan, they will always meet at the operations counter, "the fulcrum" for the entire design, says Wilford.

Since Sto manufactures paints, color is an element the architects were encouraged to use prominently. While primary colors were applied on the exterior of the building, a range of softer hues were used inside.

The courtyard on the roof above the operations counter helps bring daylight into second-story offices and a conference room (opposite bottom). Offices feed off a double-loaded corridor that is brightened by generous glazing at either end (below). Thanks to a long skylight and three glazed doors, the warehouse also enjoys more daylight than is typical in this building type.

Credits

Sto Regional Depot Hamburg, Germany **Owner:** Sto AG **Architect:** Michael Wilford and Partners—Michael Wilford, Manuel Schupp, Charlie Sutherland, Kenneth Beattie, Jürgen Engelhardt, Markus Mangold, Stuart McKnight, Ian McMillan, Jutta Simpsendorfer, design team

Site Supervising Architect: Rüdiger Franke

Engineers: Boll & Partner (structural); Jaeger Mornhinweg & Partners (mechanical); Werner Schwarz Gmbh (electrical)





BUILDING TYPES STUDY 740/Sports Facilities

Opportunities on the Sidelines

The demand for buildings that can be used to house sports, both the increasingly popular single-sport facilities like baseball parks, and multi-use arenas that can host different athletic events and activities like concerts and conventions, has boosted the annual value of this construction-market sector into the hundreds of millions of dollars in recent years (see graph with F.W. Dodge data opposite page). It has given rise to what one day may be looked back upon as the golden age of modern sports architecture, having spawned new kinds of architectural form, unprecedented activity, and even a new type of architectural firm that specializes in sports facilities.

Does this indicate a huge opportunity for architects other than those firms like HOK Sport, Ellerbe Becket Co., and HNTB Corp., who already have an established presence in this market? Probably not. But architects may well find work in the areas immediately surrounding new facilities as citizens who are planning them realize athletic venues should not be planned in isolation to their neighborhoods, but as a part of overall development strategies.

Architects who don't do sports facilities will find their best opportunities in redevelopment projects in adjacent areas.

A number of factors have played into the activity of the sports market over the last 15 years. Expansion teams needed new venues, and older facilities didn't have enough seating capacity, efficient concessions, or new innovations like club-level seating or luxury suites that mean millions of dollars in extra income for team owners. At the same time, player salaries skyrocketed and owners argued that they needed more revenue to keep the best players on their teams.

The owners' point of view has had a certain logic: seating capacity, the number of luxury suites, and the quality of facilities are primary drivers behind sports' revenues. But in their quest to maximize profits, some team owners have been almost as willing to trade cities as they are to trade players. According to an article in the January 16,

1996 *Investor's Business Daily*, at least 30 major professional sports teams were looking for new places to play either in the cities where they were located or elsewhere.

If 30 teams are looking for new homes, and they find them, it follows that many of the vacated venues will need new teams. But there are only so many professional sports teams to go around, and the owners of these teams need not increase this number to fill vacant facilities if they don't want to. In fact, it behooves them to ensure a shortage of teams for the simplest of economic reasons: when the demand for teams outstrips the supply, team owners can call the shots. A shortage of teams pits city against city, and politician against politician. It is the best of all possible worlds for team owners. Earlier this year Yankees owner George Steinbrenner had New York City Mayor Rudolph Giuliani and New Jersey Governor Christine Todd Whitman battling each other like two star pitchers, each trying to outdo the other as the Yankees look for a new venue. Guiliani's offer is a \$1-billion domed stadium on Manhattan's West Side.

The hidden costs of sports venues

The affection for athletic teams is an emotional, sometimes irrational, force. Rabid fans rally behind teams, putting great pressure on state and local politicians to keep them at home. Politicians and civic groups support the drive to build sports facilities at immense cost to taxpayers while agreeing to rent them to team owners at far below cost.

The infatuation with athletics is so intense that civic leaders, like Giuliani and Whitman, continue to push for teams and facilities despite an enormous need for money to pay for education, infrastructure, and the like, even when there is mounting evidence that the economic advantages of having a team in a city are negligible, or that they may have a negative impact on communities. For example, St. Petersburg, Florida's Suncoast Dome will have cost the city over \$30 million in debt service and maintenance before a major-league team finally calls it home in 1998. In written testimony before Congress, economist Andrew Zimbalist of Smith College, Northampton, Mass., states, "Frequently, the stadium lease is on such concessionary terms that the city cannot even cover its incremental debt service with rent and other stadium revenues. The public ends up paying for the stadiums, only to generate millions of extra revenue that inevitably is divided

Neighborhood sports bars and souvenir shops (opposite) may not survive if the Yankees leave their current home (photos right) for Manhattan's West Side. Diverse business types help sportsvenue districts prosper off-season.





Linn photos

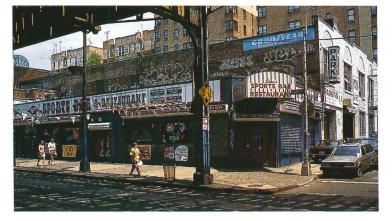
"If you're going to justify one of these things economically, you've got to look at it in terms of the quality of life in a city," says Joe Spear of HOK Sport.

between higher player salaries and ownership profits." Edwin Mills, director of real-estate research at the Kellogg Graduate School of Management at Northwestern University, noted in a recent speech concerning Boston's proposed Megaplex, "The facility is important only insofar as it draws people from other areas who would not otherwise come to Boston. They bring new money into the local economy." And even when new money does come to town, the so-called "multiplier-effect" is said by Mills and others to have been overstated. The idea is that each time money is added to a local economy, and then respent within that economy, the money magically multiplies. Mills says that much more of this money actually "leaks" to other economies than most stadium proponents are willing to admit.

Also, local money itself doesn't create new spending. It is simply shifted away from other local recreation attractions. "Twenty-five dollars spent in connection with the Megaplex has no more economic value than \$25 spent at the local cinema," says Mills. "The essential truth is that if people have more money taken out of their pockets for taxes [to pay for a new stadium or arena], they spend less. It is perfectly symmetrical with a positive multiplier-effect, but in this case, it is a negative effect."

Winning at the game

It seems unlikely that stadium and arena construction will ever completely disappear, even though a good case can be made against the public funding of sports facilities. For cities to benefit from this activity, sports facilities have to be planned as part of larger overall redevelopment efforts, or at least they should be sited as more diverse commercial districts. For example, the restaurants and sports bars near football stadiums, which have only a handful of home games each year, may become local destinations in some markets, but they can hardly be expected to become frequent out-of-town destination points on their own. The architects who become involved in designing the accompanying shopping, hotels, offices, and even residential developments—as well as attractions that are not seasonal such as the aquarium and science center that help anchor Baltimore's Camden Yards-may turn out to be the true winners in the game. HOK Sport Senior Vice President Joe Spear cites the South Market area in San Francisco, where a new Giants stadium has been proposed, as another location where such potential exists. "It's



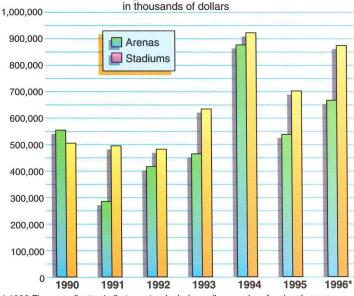
remarkable how much diversity was there after the earthquake and the demolition of the elevated freeways. I think a stadium there would make a real difference—it will bend the light rays, as it were—in what people think of the area and what they are willing to invest there." The proposed stadium for New York's West Side has a similar potential for reclaiming underused former industrial land from the surrounding area. Commercial and residential projects there would create many opportunities for architects.

"When you design something that could be as emotionally significant as Jacobs Field or Coors Field," says Spear, "you don't start out with a blank sheet of paper, you start out with the city. There is a lot of diversity to draw from, to shape the building, whether that's an arena or a football stadium, or what. Commercial diversity is extremely important to economic success."

The big picture

Whether sports facilities should be publicly funded, and if so, whether they will have the potential to benefit more than a few architects will always be debatable. But Spear says one of the best arguments in favor of stadiums is really intangible. "I think if you're going to justify one of these things economically, you've got to look at it in terms of the quality of life in a city, something that is hard to put in dollars and cents. If Cleveland lost its baseball team, what would that do to its image as a place? It's hard to say any of these stadiums have added Xpercent to property values or the economy of these cities, but they have enriched the environment tremendously. I don't think you'd get any argument about that." *Charles Linn*

Four Quarter Moving Total: Stadium and Arena Starts



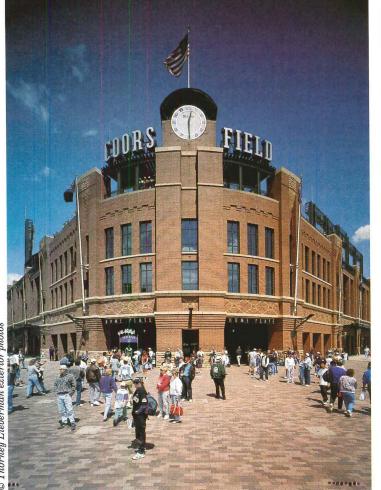
* 1996 Figures reflect only first quarter. Includes college and professional venues. Source: F.W. Dodge, a division of the McGraw-Hill Companies

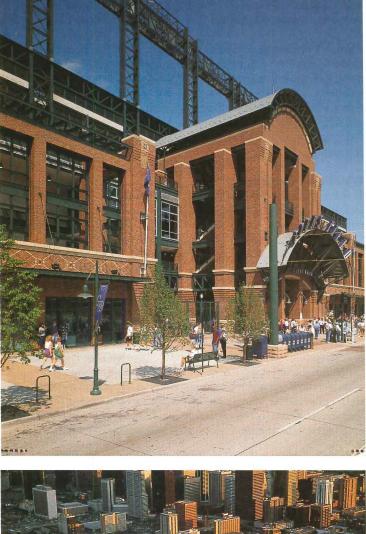
Coors Field

Denver, Colorado HOK Sport, Architects Comparisons between Coors Field and early ballparks are inevitable. While it is true that Coors' esthetic is a somewhat sanitized imitation of the gritty urban ballparks of old, which evolved over time through the addition of bleachers, fences, and signage, and whose outfields were often oddly shaped by the confines of irregularly shaped sites, one thing is sure: if you can't go back in time to Ebbetts

Field, or the original Comisky Park, Coors Field might be the perfect place to capture the magic "crack" of ash on horsehide on a warm summer's night.

Coors Field is located in the shadows of old warehouses on the site of the former Union Pacific railyards in Denver's lower downtown district, an area that was once the locus of commercial activity for the entire







region. The supply of nearby structures, which had fallen into disuse with the decline of the railroads, is extensive and readymade for redevelopment. In fact, brew pubs, restaurants, loft housing, and other ventures are in development there, and property values are said to be rising.

The location of the park was also strategic, in that major highways, streets, municipal bus lines, and bike paths already led to the area, although there is little parking on the actual site most is "borrowed" from existing parking in upper downtown a few blocks away. Fans walk or use alternative means of transportation to get to the game—according to the architects, during a Memorial Day homestand this year, Rockies' management expressed concern at the lack of public locker space for roller blades, wondering if this new type of fan amenity should be offered.

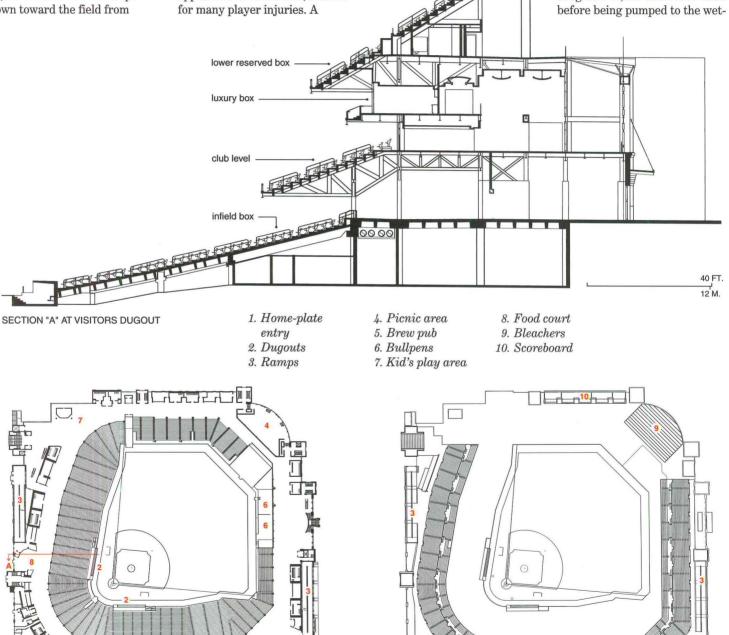
No doubt part of Coors' successful replication of early ballpark imagery is due to its low scale, deliberately designed not to overpower the surrounding buildings. The stadium was kept within the confines of a city block and, like other buildings in urban settings where land is valuable, no square foot is wasted: the building reaches right out to its minimal street setbacks. Besides scale and siting, a contextually appropriate mix of materials and detailing completes the retromessage: corbelled, diagonal Flemish-bond brick on sandstone plinths. These are trimmed with Colorado's state flower, the columbine, in hand-sculpted terra cotta. Exposed, painted structural steel supports con-



The main and side entrances to Coors Field show (opposite top photos) how HOK Sport has integrated materials and traditional patterns to create the feel of an old-time ballpark. Inside, the facility has all of the modern amenities (above). Sited on the old Union Pacific yards, (opposite) the ball park is woven into existing traffic patterns, and has brought new life into Denver's lower downtown. courses, canopies, and lighting towers. The main entrance is topped by the Bulova clock often seen in old parks.

Inside, the similarities between old parks and the new fall away. The 50,000 seats are divided into five levels, served by four concourses. To keep the height of the park at a minimum, the 22,000 infield box seats slope down toward the field from street level almost two full stories. Besides Chicago's new Comisky Park, Coors Field is the only park which has a concourse that runs continuously around the field. There is even a play area for children who may not yet have developed a fascination for the game.

On the field, grass is back as opposed to artificial turf, blamed for many player injuries. A groundkeeper's dream come true, 46 miles of heating coils at a comfy 58-degrees F. give the turf a head start in spring and melt late snows. In what is probably a first for ballparks, the designers are treating wastewater runoff from the stadium and field using constructed wetlands. Waterborne debris and sediments from the stadium bowl settle inside a subgrade 48,000-cubic-foot vault before being pumped to the wet-



upper reserved box

MAIN CONCOURSE LEVEL

UPPER SEATING LEVEL

lands, a sequence of six ponds that are planted with specific flora to purify the water. Storm runoff from the parking lot drains directly to the constructed wetlands.

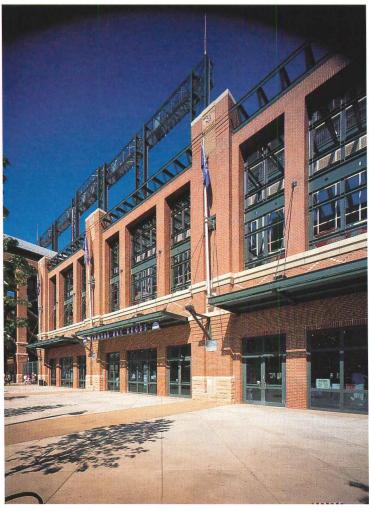
Even though players have to hit a ball 423 feet to reach the fence at its farthest point—farther than at any park in the majors some fans complain that Coors Field is ruining the game on account of the extraordinary number of home runs hit here: fly balls travel far and fast in the mile-high atmosphere. *C.D.L.*

Credits

Coors Field Denver, Colorado **Owner:** Denver Metropolitan Major League Baseball Stadium District

Architect: *HOK Sport*—*Ray Chandler, principal-in-charge;* Joe Spear, design principal; Bradd Crowley, project manager; Brad Schrock, senior designer; Bruce Marshall, project architect; Craig Meyer; planning coordinator

Consultants: Martin/Martin Consulting Engineers (structural); M • E Engineers (M/E/P); J.F. Sato and Associates (civil and water resources); EDAW/HRV (landscape); Grenald Associates (lighting)



Retail shops and restaurants on the ground floor of the stadium's street side (above) attract fans on game days, but more important is the foot traffic they may generate when there is no game. This effort shows how an athletic venue can contribute to the overall economic health of a neighborhood. The on-site sports bars and restaurants continue the ballpark's old-time theme.

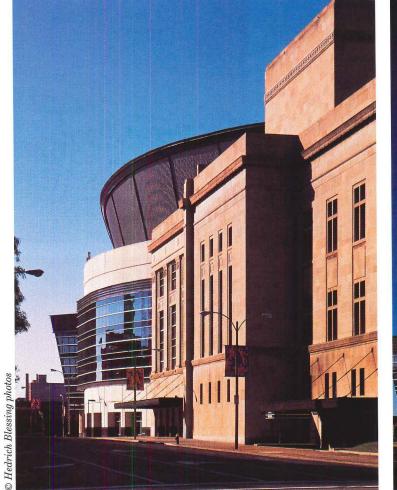


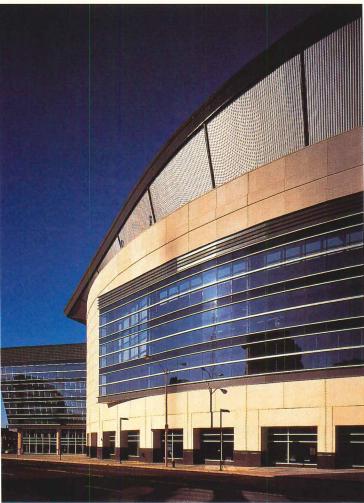


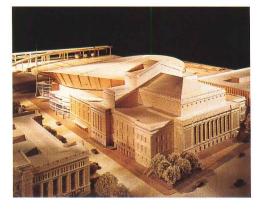


Kiel Center Arena

St. Louis, Missouri Ellerbe Becket, Inc., Architects Publicly financed arenas and stadiums are increasingly sold to skeptical voters as catalysts for luring people into urban centers. Thus, like many of the sports facilities that Ellerbe Becket designs these days, the Kiel Center Arena is not located on the open urban fringes, as such structures usually were 20 years ago, but right downtown in St. Louis, where it shares its site with another civic attraction, the Neoclassical 1930s Kiel Opera House. That the two structures bear little resemblance is no accident. "It was the reason we won the city's design competition," says Thom Greving, Ellerbe Becket's senior designer on the arena. Sweeping lines express new times and uses—not to be confused with the sedate role of the opera fronting north onto a new "culture mall." Still, the two are oddly compatible (below).



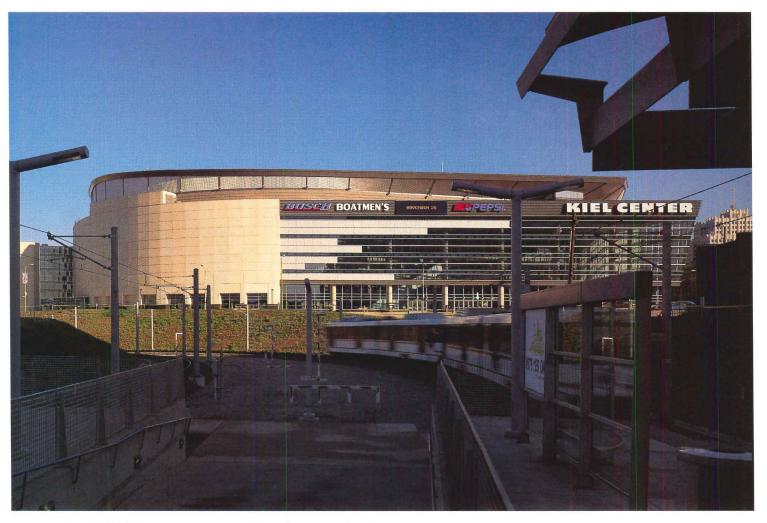


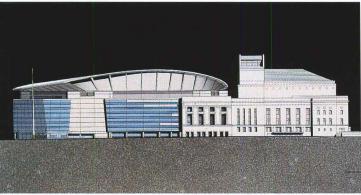


Kiel Center Arena typifies new sports facilities in more ways than its urban location. Unlike single-user structures of yore, the arena accommodates several activities so it is seldom idle. Initiated as the new home of the ice-hockey team, St. Louis Blues, its 650,000 square feet also house the St. Louis University basketball team and numerous concerts. A variable-width playing floor holds 20,000 seats for hockey and 21,000 for other events. At the ends of the arena, 1,500 seats are raised electronically during hockey games for views over the dasher boards.

Owners Kiel Partners, a consortium of some 40 local corporations, counters usual arguments against bringing large numbers of cars downtown with a 1,240-car garage to park them plus access to a rapid-transit system. Like many new arena owners eager for income, Kiel Partners sell season boxes some 83 of them holding up to 730 spectators—that resemble hotel suites complete with bars and TVs. A restaurant seating 450 also overlooks the action. Not everyone is happy with this configuration. "The socially segregated Kiel Profit Center shortcircuits ice hockey's electrical charge between fans and players," bemoans *St. Louis Post Dispatch* sportswriter Paul Lore.

With investors wanting quick returns, Kiel Center Arena's design and construction period was less than 22 months. Typical design-construction periods for a spectator-sports facility this size are two to eight months longer, notes Ellerbe Becket's project manager Joe Diesko—still brief periods compared to other types



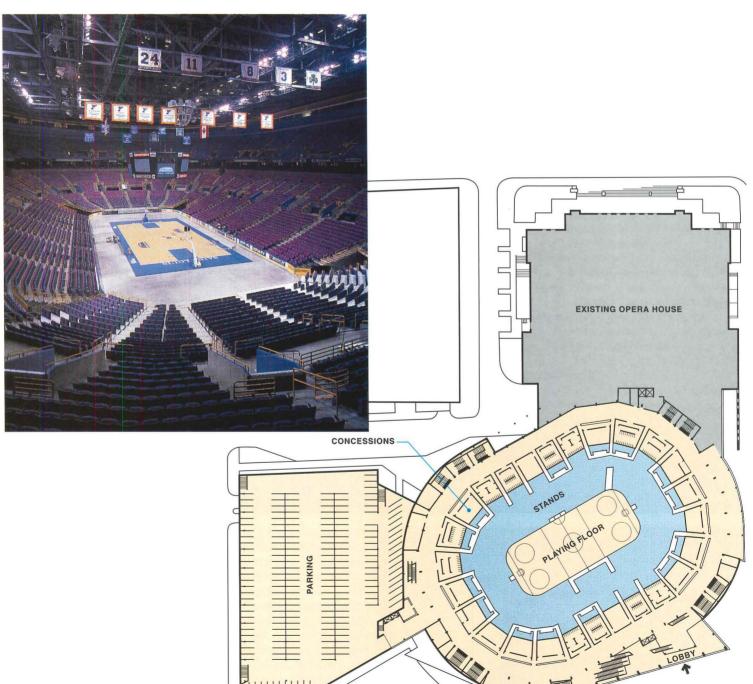


To mesh two very different buildings (and resolve a potentially awkward juncture), the architects removed the granite rear wall of the 1930s opera house, numbered the stones, and reassembled them in their original relationship to form an overlapping screen in front of the new curved glass wall of the arena. Now the arena seems to emerge from the older structure. of construction. And, Kiel went up during the rainiest summer in a century, a flood, and the discovery of a steeply sloping rock shelf under the site. Despite these conditions, J. S. Alberici Construction Company—which had guaranteed a maximum price of \$128 per square foot when contract documents were only 60 percent complete—accelerated the required schedule to meet an October start of the hockey season. Construction began around demolition of previous buildings. To keep up with the work, Ellerbe Becket's engineers worked nights approving steelreinforcement shop drawings of the largely concrete structure, for fabrication and pours the next day. Preassembled steel trusses over the central space were trucked to the site at dawn to beat rush-hour traffic. The pay-off: Shortly before the opening, the NHL went on a strike that lasted until the following January. *Charles K. Hoyt*

Credits

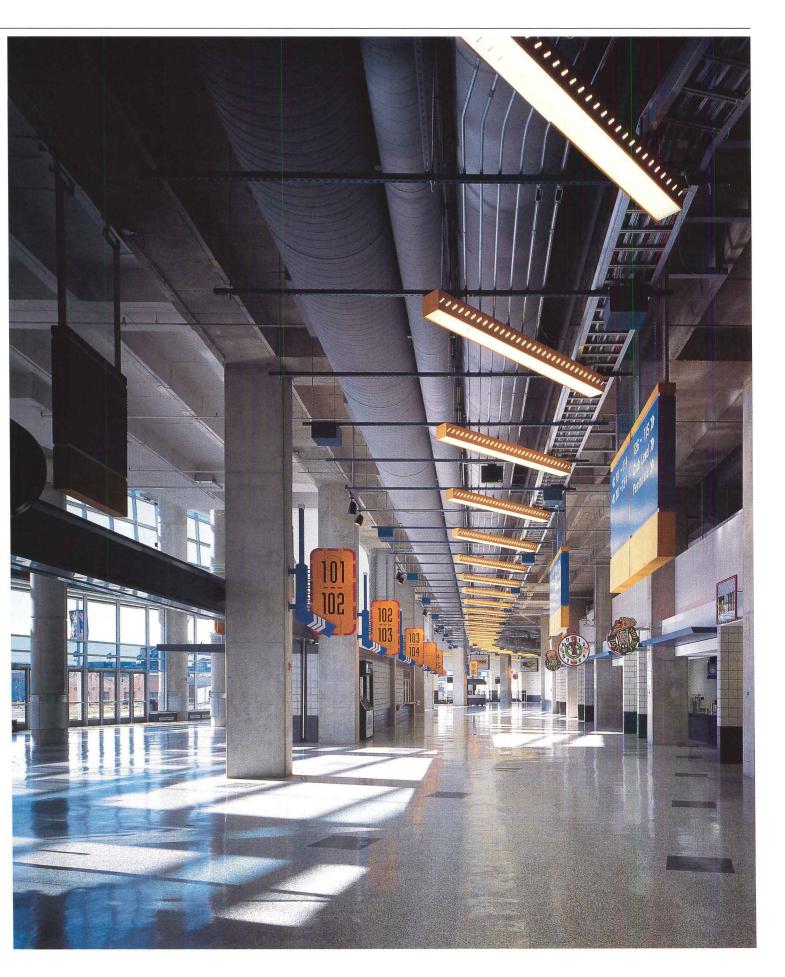
Kiel Center Arena St. Louis, Missouri **Architect:** Ellerbe Becket, Inc.— Joe Diesko, project manager; Dan Sullivan, Bill Bassett, project architects; Thom Greving, Randy Bredar, project designers; Gary Storm, structural engineer; Jim Lee, construction administrator; Gordon Wood, technical advisor Engineers: Kennedy Associates/William Tao & Associates (M/E/P) Consultants: Kiku Obata &

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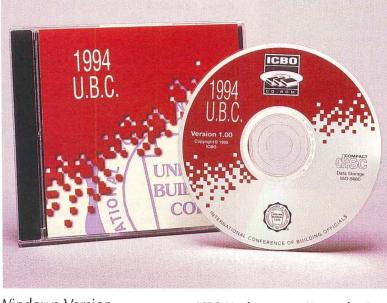
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Manufacturers' Sources

For your convenience in locating building materials and other products shown in this month's feature articles, RECORD has asked the architects to identify the products specified.

Pages 80-87

Museum of Contemporary Art, Chicago Josef P. Kleihues, Inc., Architect A. Epstein and Sons, International, Associate Architects

Indiana Limestone cladding: Spectrum Stone. Cast-aluminum panels: Kessler Enterprises. Curtainwall, skylights, and entrances: Harmon Contract. Pyramid skylights: Imperial Glass Structures. Aluminum framed windows: Wausau Metals. Translucent vaults (galleries): Laminated glass. Lobby floor: Impala Black Granite. Paintedsteel railings: fabricated by Waukegan Steel. Interior wood doors: Algoma Hardwoods, Inc. Locksets: Sargent. Hollow-metal doors: Build Rite. Solar-control louvers: Solonia GmbH. Elevators: Otis. Public-area seating: Knoll. Sconces (at stair): Se'Lux (Sawtooth fixture designed by Josef P. Kleihues). Recessed downlights: Edison Price. Exterior bollards and step lights: BEGA.

Pages 88-93

Museum of Contemporary Art, San Diego Venturi, Scott Brown & Associates, Architect Exterior custom-color coating on cement plaster: Thoro System Products (Thoroseal).



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Pages 94-101

Skirball Cultural Center, Los Angeles Moshe Safdie and Associates, Architect Albert C. Martin and Associates, Associate Architect

Masonry cladding: Tadoussac. Stainless-steel roofing: Atlas. Liquid-membrane roofing: American Hydrotech, Inc. Aluminum-framed windows and entrances: Kawneer Co., Inc. Glazing: Viracon. Locksets: Yale. Hinges: Hager. Closers; Norton. Exits: Adams-Rite. Acoustic ceilings: Armstrong World Industries (Cirrus). Drywall and veneer plaster: USG Corp. Chinese slate flooring: Eurocal. Carpeting: Bentley; Masland. Elevators: Fujitec.

Pages 102-107

Sto AG Regional Depot, Hamburg, Germany Michael Wilford and Partners, Architect Insulated panel cladding: StoTherm (Panel 2000). Sheet-metal roofing: Alcan Aluminum. Windows: Hartmann. Glazing: Flachglas. Entrances and doors: Mannesmann. Locksets: FSB. Rubber flooring: Freudenberg (Norament). Acoustic ceiling treatment: Sto Silent. Tile surfaces: Villeroy + Boch. Tables and office furnishings: Voko. Interior lighting: BEGA; DZ Licht; Poulsen Lighting; Gozzini. Interior coatings: Sto (Decolit; Sto-Pox; Sto Top). Exterior lighting: BEGA.

Pages 110-113

Coors Field, Denver HOK Sport, Architect Curtain wall, windows, and entrance: Kawneer Co., Inc. Paints: Sherwin Williams. Resilient flooring: Gerbert; Armstrong World Industries. Delicatessen floor: American Olean. Laminate surfaces: Nevamar. Downlighting: Edison Price; George Kovacs. Ambient fixtures: Visa Lighting; Winona. Exterior lighting: Kim Lighting. Pole-top luminaires: Poulsen Lighting, Inc. Elevators: Montgomery. Stadium seating: Hussey Seating Co.

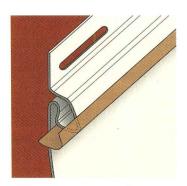
Pages 114-117

Kiel Center Arena, St. Louis Ellerbe Becket, Inc. Architect Curtain wall, windows, and entrances: Cupples Products, Inc. Single-ply roofing: Sarnafil, Inc. Sports-lighting fixtures: Sterner Lighting Systems, Inc. Cast-terrazzo flooring: Fritz Industries, Inc. (Fritztile). ■



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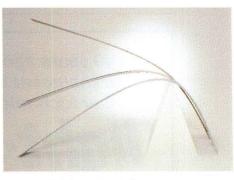


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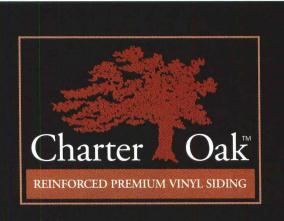


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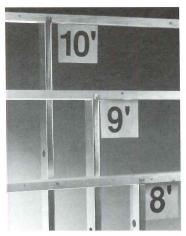
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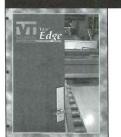
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Product Literature

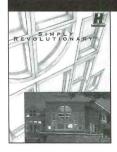


208. Architectural wood doors An eight-page catalog illustrates VT's all-wood, door-edge treatment: a 1/4in.-thick stile surface is applied so no white cross-section lines are visible. A selection chart displays core, stile, and finish options with sound-attenuation and other performance data. Also includes laminate and impact-resistant doors. 800/827-1615. VT Industries, Inc., Holstein, Iowa.



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210. Multiple-option windows An 18-page catalog demonstrates many of the style, color, hardware, and wood-specie choices available in high-performance, wood-frame/aluminum-clad windows. Developed in Scandinavia for the severe weather of Northern Europe, the system offers architectural solutions to glazing problems. 800/843-4929. H Window Co., Monticello, Minn.



211. Easy-open entrance

A new catalog explains how the Balanced Door meets minimum ADA specs without needing power door operators. Includes photos of several styles: formed stainless-steel and bronze doors; extruded-aluminum entrances; and narrow-stile tempered-glass designs. Binder and video also offered. 716/665-6522. Ellison Bronze, Falconer, N.Y.



212. Commercial roofing

A 50-page manual, Commercial Roofing Specifications and Details, covers updated material on polyester and fiberglass-reinforced, SBS-modified bitumen systems, and also highlights Heritage architectural-style residential roofing shingles. Explains how TAM-CADD electronic roof-specification works. 800/641-4691. TAMKO Roofing Products, Inc., Joplin, Mo.



213. Masterspec on disk

The new owners of Masterspec offer print-format and electronic tools for specific design-office needs. Flyers explain *SmallProject*, simplified short-form specs for lower-budget projects, and *Masterworks* and *Linc-Spec*, software that can do complex editing tasks on many documents at once. 801/521-9162. ARCOM Master Systems, Salt Lake City.

For more information, circle item numbers on Reader Service Card.

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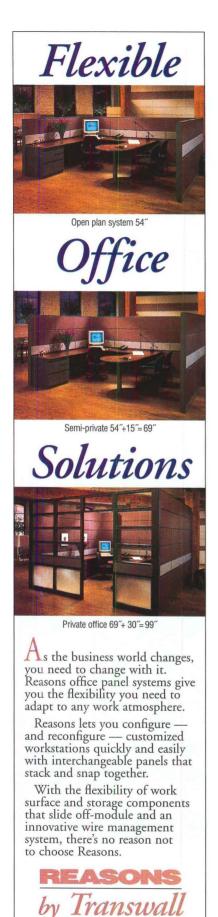
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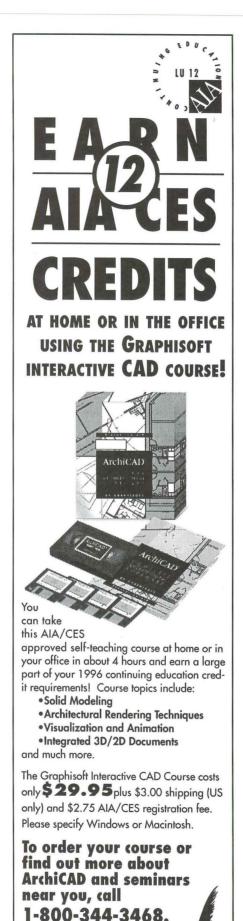
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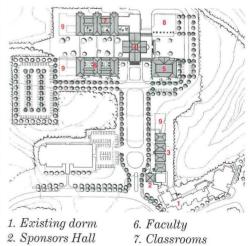
Corrections and Clarifications

 To receive an on-line summary of current articles on sustainable design, you don't need a subscription to America Online, as mistakenly stated in ARCHITECTURAL RECORD. Short Takes, January 1996, page 23. • The first name of Gordon Chung of the California Council was printed as George in error [RECORD, February 1996, page 33]. Peter Mance should have been credited as the photographer of the Queen Elizabeth 2 [RECORD, February 1996, page 99]. ◆ In "Balancing the Equation," [RECORD, March 1996, page 25], the phone number at the AIA for information on developing family-leave policies should have been: 202/626-7482. Also, the line about enforcement of the Family Medical Leave Act was inadvertently deleted. FMLA complaints are filed with the Department of Labor's Employment Standards Administration. • The photographer for the Declaration of Independence exhibit [RECORD LIGHTING. May 1996, page 9] was Craig Blackmon. • The project team credit list for Tsao McKown's Suntec City project [RECORD, May 1996, page 94] should have included Mark Brandli and Claudia Russell. The credits for "The Original Levi's Store" [RECORD, May 1996, page 107] misspelled the name of project manager Daniel Broggi. Ali Zanjani of American Personal Communications is the owner of Sprint Spectrum

store at Tyson's Corner, Va., by CORE architects [RECORD, May 1996, pages 110-111]; Enterprise Woodcraft & Design designed the fixtures.

UVA Business School Correction

• The site plan for the University of Virginia business school [RECORD, July 1996, page 74] was missing the legend numbers below.



- 3. New dorm 8. Future auditorium
 - 9. Future addition
- 4. Commons 5. Library

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New Products continued from page 120

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214. Resort furniture

The inventor of a rugged and oftenspecified "market" umbrella, Mark Singer has designed a new furniture collection, 10 pieces in all, which can be customized to meet the appearance, finish, and site requirements of either interior or exterior spaces in contract applications such as hotels. Made of plantation-grown Indonesian Eco-Teak, Azia tables and chairs feature removable panels (of cane, hammered copper, and slate for outdoor settings, or upholstered in fabric or leather for indoor use), a decorative option that allows the basic piece to coordinate with different interior-design styles such as southwestern or African. A color catalog illustrates furniture in



private homes as well as country club, hotel, and resort settings. 805/965-6535. Giati Designs, Inc., Santa Barbara, Calif.



215. New take on a classic Originally designed for a private home in California, Weatherend's version of the Adirondack chair has a fan-shape slatted back and matching footstool. Piece can be specified in different slat configurations and arm widths; shown above: Awlgrip finish in Jade Mist. The ash/litter receptacle (left) can also be customized, by altering the unit's size, shape (round/square/rectangular), and slat design. Both pieces shown can be ordered in paint colors as well as natural teak and mahogany. 800/456-6483. Weatherend Estate Furniture, Rockland, Maine.

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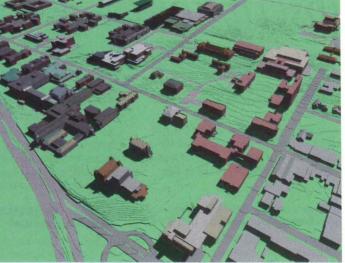
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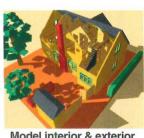
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Agenda *continued from page 36* cultural planners where once they had social workers," comments Scott Brown.

Also, blockbuster museum shows "have become a powerhouse" for cities, she says, promoted not only by the institutions themselves (Chicago's just-opened Museum of Contemporary Art—page 80—is running advertisements in *The New York Times*), but through media coverage and discount packages offered by travel agencies and hotels. Indeed, the impetus to keep visitors in town is behind a master plan the firm is preparing for Independence Mall, the bleak expanse that fronts the venerable Independence Hall in Philadelphia (page 34).

Expanding today's limited vision

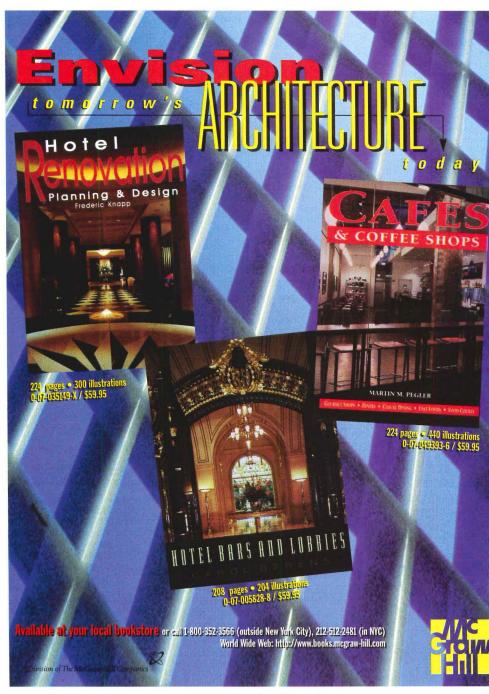
The Mall project is typical of another trend: the increasing participation of charitable foundations. With the National Park Service (which operates Independence Hall) strapped for funds, the Philadelphia-based Pew Charitable Trusts stepped in. "Our board is very concerned with what it can do to help stabilize the economic base in this region," explains Keith McKeown, spokesman for the Trusts. "One of the things missing here is an entity to market Philadelphia as a destination for tourists."

Other foundations also seed urban redevelopment through grants. The Lila Wallace-Reader's Digest Fund has an Urban Parks Initiative operating in 11 cities; the Stanton Trust has underwritten planning in Denver. But don't expect foundations to pick up where government leaves off, McKeown cautions. Pew's role, he says, "is as a somewhat neutral organization that can convene and provide common ground for stakeholders."

While architects can offer stirring visions, there are all too real limitations on what can be done. Says ULI's Black, "Basic economics are a problem once you get away from better locations in downtowns that can command high re-use values." He says it is particularly difficult to redevelop the kinds of obsolete industrial areas that are surrounded by lowincome neighborhoods containing low-quality housing stock. "Cleveland, Detroit, St. Louis, and probably another 20 to 30 old industrial cities really have their hands full," he explains, "because you have a situation where the re-use value of redevelopment is substantially less than the cost of redevelopment."

Yet he also says architects who can work well with others have much to contribute. "You need to combine in a planning team the expertise of the private investor, developer, public-infrastructure planner, and somebody who understands the nuances of older structures and what can be done with them. It calls for pretty creative design work to get the maximum out of the system."

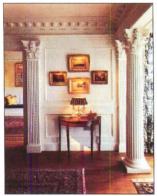
Black says that this kind of redevelopment demand can't be met solely by creative use of existing tools. He'd prefer a return to Title 1 subsidies under the federal Housing Act of 1949. The subsidy scheme recognized, "that you might have to invest \$10 per sq ft to create a piece of land only worth \$1 to \$3 per sq ft," but that the advantages of eradicating blight outweighed the cost of the subsidy. Title 1 was frequently abused in its heyday, and there is little sentiment now for reviving it in Congress, but the pendulum could swing. Indeed, Alexander Garvin's The American City: What Works, What Doesn't (New York: McGraw-Hill, 1996) has met an unusually warm reception considering that many of its success stories happened during the era of traditional government urban renewal. James S. Russell



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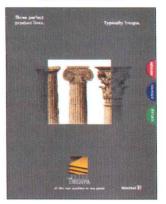


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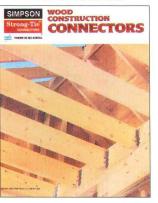


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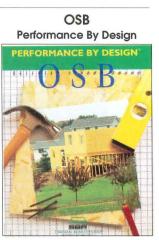
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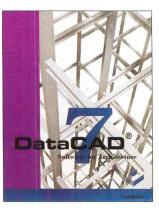


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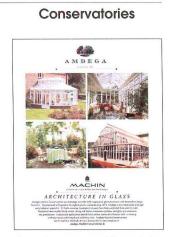
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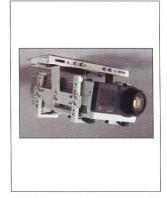


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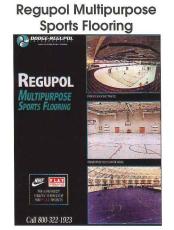
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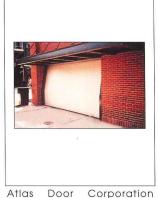


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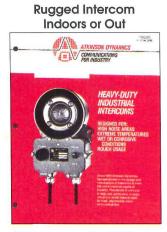


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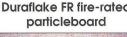
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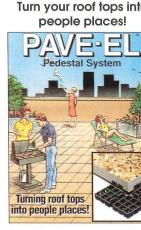




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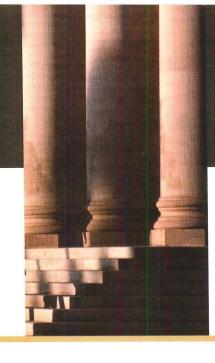


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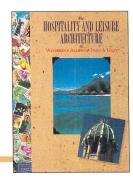
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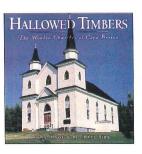
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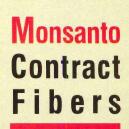
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