

architecture

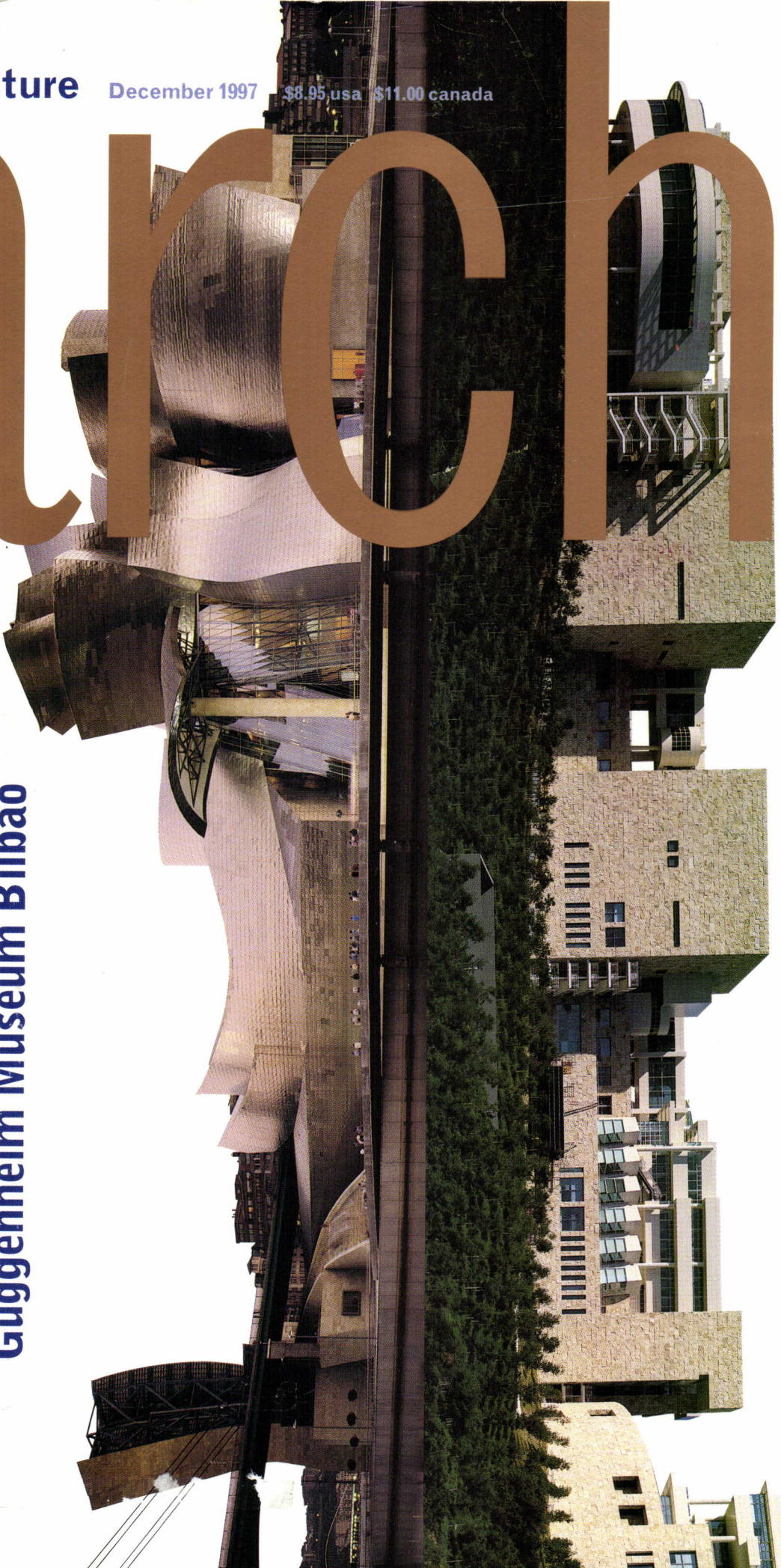
December 1997

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Richard Meier's long-awaited Getty Center in Los Angeles (pages 78-93, this issue) offers the most visible evidence of the museum boom now under way in this country. Since 1970, the number of museums in the United States has jumped 50 percent, to total 1,200. Many of these institutions are art museums in the process of constructing new buildings, such as Fort Worth's Modern Art Museum and the American Museum of Folk Art in New York City (page 45, this issue). Others are adding to their existing facilities, like the Museum of Modern Art in New York, which announces the architect of its expansion this month.

Museum Boom

Tourism is reshaping museums, but art deserves first priority.

For architects, this flourish of museums marks an exciting opportunity to rethink the building type. Once stately halls devoted to the quiet contemplation of esthetics, art museums are being transformed into bustling tourist destinations. Even the stodgiest cultural icons are now enlivened by shops, restaurants, classrooms, lecture halls, and gardens.

These crowd-pleasing additions to museums are a positive development. Blockbuster exhibitions and revenue-producing activities not only help support the arts, but generate tourist dollars for cities as well. In 1996, for example, the Cézanne exhibit at the Philadelphia Museum of Art attracted 548,741 visitors—80 percent of them from out of town—filling the city's coffers with an estimated \$86.5 million. Such infusions of cash are leading more

and more cities to bank on the arts to revive their downtowns. Cultural districts are now being developed in Philadelphia, San Jose, Kansas City, Tucson, and other cities. Most of them are anchored by museums and galleries.

Architecture is playing an increasingly important role in attracting the public to these art-related spaces. It shapes the museum-going experience, as well as the institution's identity and its ties to the community. Often, architecture is viewed as the museum's most significant artwork. Too many recently completed museums, however, upstage the art (pages 56-59, this issue). The viewing experience is sacrificed at the altar of the avant-garde.

Creating art-friendly galleries is only one challenge confronting today's museum architects. More fundamental is resolving

the inherent conflict between the active, populist spaces now demanded of contemporary museums and the introspective environments that they still require. Galleries and exhibition spaces must take precedent over lobby atriums, children's play spaces, members' lounges, restaurants, and, of course, museum stores. The institution's cultural mission must remain at the forefront of the building and clearly apparent to the public.

Architects need not view this hierarchy as a retreat from experimentation. The best museums are those whose embrace of art is sympathetic and stimulating, like Louis Kahn's sublime Kimbell Art Museum. Respect for art shouldn't change. The new challenge is how to achieve it in a more popular, democratic fashion.

Deborah K. Dietsch

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How could anyone in their right mind assert that the projects from depicted in the article "Seoul Searching" (*Architecture*, September 1997, pages 49-55) improve their urban sites? These monolithic, histrionic slaves to trend have nothing to do with the city. True cityscapes excite interest and activity both up close and from afar, but these buildings have nothing going on at the street level—where it counts.

A city of sealed cubes like Young Bum Lee's Samsung day-care center or what surely will be yet another leftover-space plaza around Norman Foster's Daewoo tower does not conjure images to rival Rome. It's sad to see such urban-hating design infecting other cultures.

Alan Razak
Jackson-Cross Advisors
Philadelphia, Pennsylvania

Memorial mania

As an architect and polio victim, your description of the President Franklin Delano Roosevelt Memorial in "Memorial Mania" (*Architecture*, September 1997, pages 94-97) makes me mad. The fact is that FDR was disabled and the existing memorial attempts to gloss over that fact.

Memorials should show people as they lived, in the context of their times, not from the perspective of present sentiment. Yes, FDR chose not to draw attention to his polio for his own reasons, but that does not alter the fact that he used a wheelchair and required considerable help to negotiate the non-accessible world.

Kent F. Potter
Reisterstown, Maryland

Your commentary about memorials sadly underscores the self-centered ambivalence of our times. Memorials should be attractive, cause reflection, meet a program, and be sensitively sited. You note that compromises to initial memorial designs are common. Certainly, we need to be more selective in what is memorialized. But we also must think through and defend the guidelines under which a memorial is executed.

Charles M. Weymouth
Weymouth Architects and Planners
Wilmington, Delaware

Oh Henry

Contrary to your evaluation, Gwathmey Siegel & Associates' Henry Art Gallery addition and renovation at the University of Washington (*Architecture*, September 1997, pages 120-127) is not a campus gateway; it is a campus obstruction. Gwathmey Siegel did not preserve the vista; the gallery addition and its boxy lightwells block more of the statue of George Washington to its east than the sloping lawn it replaced. This site was not the only possible location for the museum. A sympathetic structure could have been built on the grassy area across the street, connected by a grand stair and a passageway.

Richard Lee Francis
Bellingham, Washington

I appreciate the extensive coverage of Gwathmey Siegel & Associates' expansion of the Henry Art Gallery (*Architecture*, September 1997, pages 120-127). The author correctly notes the difficult site conditions and calls attention to the magical aspects of the design as well as pointing out its shortcomings.

However, the reader is poorly served by the dismissive headline that asserts "in assembling a university art museum, Gwathmey Siegel & Associates fails to pull the pieces together." While the diligent reader might go on to discover the author's praise, this simplistic one-liner is at odds with seeking to engender thoughtful analysis of a complex building.

I believe that Principal Charles Gwathmey's "collage" successfully creates a dynamic composition of new and old. In particular, the interiors have a fluid, logical sequence and the interplay of light and space is beautiful and engaging. That this effect is created in a building that is largely underground is a remarkable architectural achievement.

Richard Andrews
Director, Henry Art Gallery
Seattle, Washington

Creative science

I would like to clarify the nature of the collaboration between architects and conservators (*Architecture*, September 1997, pages 138-144). A conservator's primary obligation is to extend the physical life of the work. It is a scientific activity, but it is also a creative

activity of critical interpretation, since behind the form and fabric of historic buildings are both past and present meanings and uses. To suggest that this is not a primary aspect of the training or the responsibility of architectural conservators is to perpetrate the misconception of the conservator as a technician only capable of working at the "micro-level."

Frank Matero
University of Pennsylvania
Philadelphia, Pennsylvania

Gimme shelter

In Witold Rybczynski's "Housing Without Architects" (*Architecture*, August 1997, pages 78-81), the author claims architects are missing a golden financial opportunity by shunning the housing market. If making a killing is the motivation to get involved in designing housing, I doubt the quality will improve.

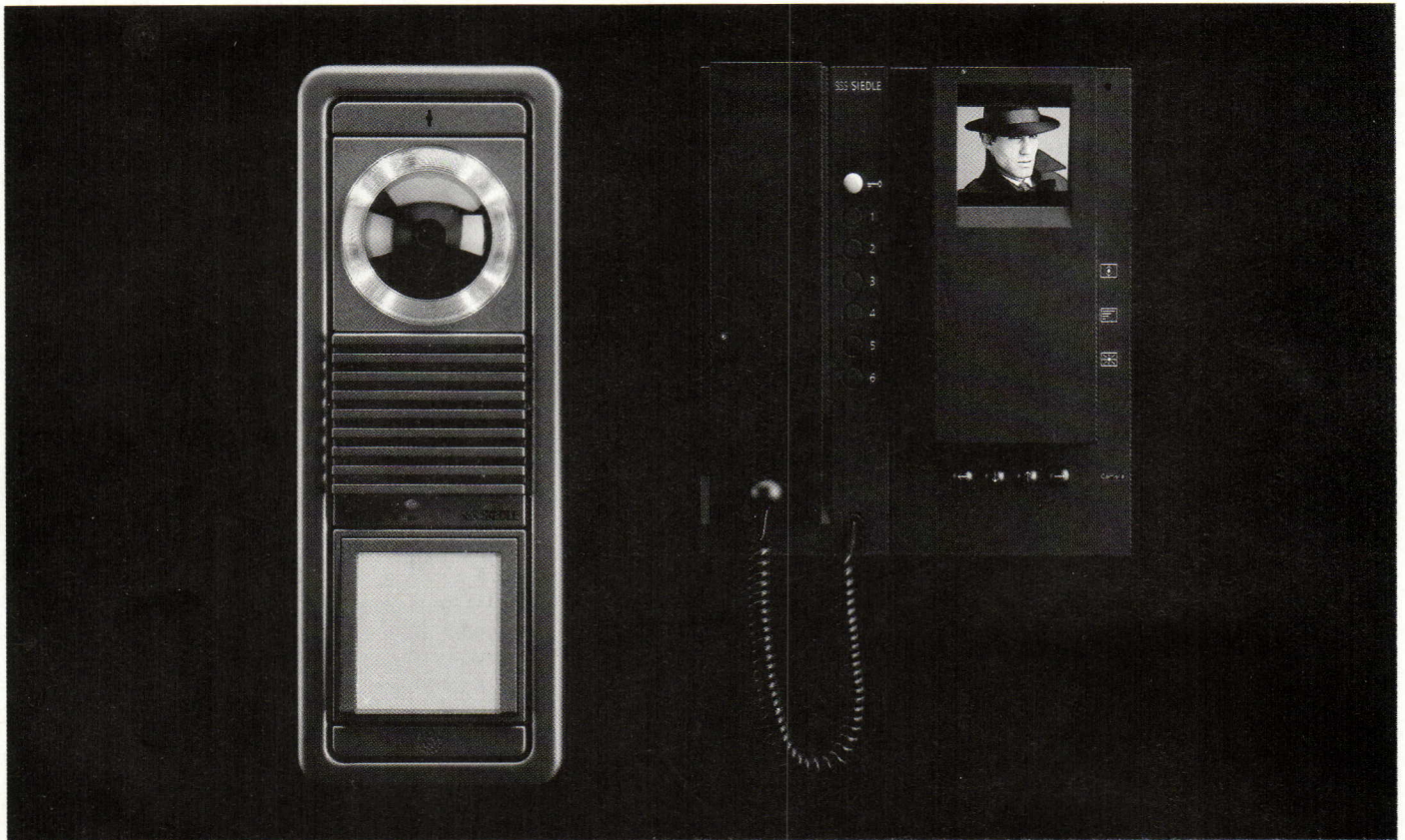
The argument that famous architects once had greater interest in housing is unconvincing. Well-known architects were not interested in building the typical townhouse, and instead, built the extraordinary houses we now recognize. Perhaps we are better-off for their disinterest.

Rybczynski thinks architects have no business educating the public. Rather, we should provide what is requested. Are we to believe that Americans truly want suburban living on 1/8-acre lots with kidney-shaped roads that require the automobile to shop, work, play, go to school, and that there is no need for community? Jon Michael Schwarting
New York Institute of Technology
Old Westbury, New York

I am surprised that you question HUD Secretary Andrew Cuomo's commitment to architecture in public housing (*Architecture*, August 1997, pages 94-105). I have worked closely with Secretary Cuomo and know him to be extremely committed to sound and efficient architecture that makes communities warm and inviting places to live. Architecture is a high priority in the work he has done both at HUD and in the private sector. I am confident we will see the results of this commitment during his tenure as HUD secretary.

Peter Calthorpe
Calthorpe Associates
Berkeley, California

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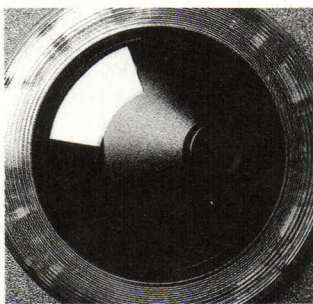
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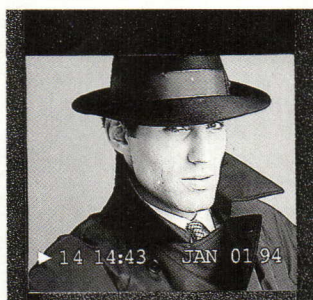
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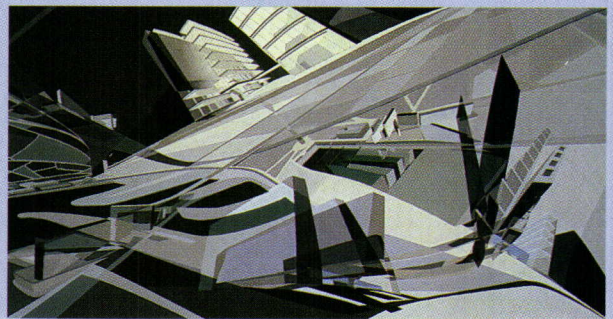
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exhibitions

city	dates	exhibition	contact
Berkeley	through January 18, 1998	Bernard Maybeck at the University of California Berkeley Art Museum	(510) 642-0808
Boston	through January 4, 1998	Rome and New York: A Continuity of Cities at the Fogg Art Museum	(617) 495-9400
New York	December 12- January 24, 1998	Charlotte Perriand at the Architectural League of New York	(212) 753-1722
Philadelphia	through March 1, 1998	Philippe Starck and Ian Schrager: Reinventing the American Hotel at the Philadelphia Museum of Art	(215) 763-8100
San Francisco	December 19- March 10, 1998	Zaha Hadid: Painted Projects at the San Francisco Museum of Modern Art	(415) 357-4000

Zaha Hadid's 1993 study for the Zollhof Arts and Media Center, exhibited at the San Francisco Museum of Modern Art



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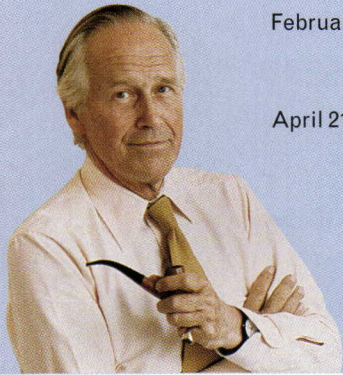


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Dallas	January 16-19, 1998	The International Builders' Show , sponsored by the National Association of Home Builders	(202) 861-2191
Las Vegas	May 27-29, 1998	Lightfair International , sponsored by the International Association of Lighting Designers and the Illuminating Engineering Society of North America	(800) 856-0327
Los Angeles	March 18-20, 1998	WestWeek	(310) 657-0800
	March 19-20, 1998	NeoCon West	(800) 677-6278
Orlando	January 17-21, 1998	World of Concrete exposition	(888) 562-4962
	February 19-22, 1998	Celebration and Central Florida: Cross Sections in Time and Space , sponsored by the AIA	(800) 242-3837
	April 21-24, 1998	Coverings '98	(800) 881-9400



Architect Jacquelin Robertson will speak at the Celebration conference in Orlando.

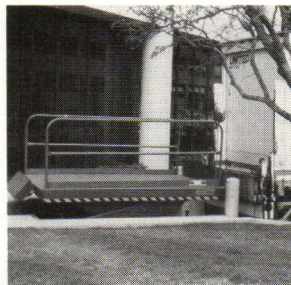
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competitions

competition	deadline	contact
Best-of-Home Design Awards , sponsored by the Assisted Living Federation of America	January 5, 1998	(703) 691-8100
21st Century Community Gathering Place student design competition , sponsored by North Carolina State University	January 16, 1998 (registration)	(919) 515-3082
Chicago infill housing competition , sponsored by Women in Planning and Development and Habitat for Humanity	January 30, 1998 (registration)	(773) 725-8681 fax
Young Architects Competition , sponsored by the Architectural League of New York	January 27, 1998	(212) 753-1722

Houston apartment by David Guthrie, one of the
Architectural League's 1997 Young Architects



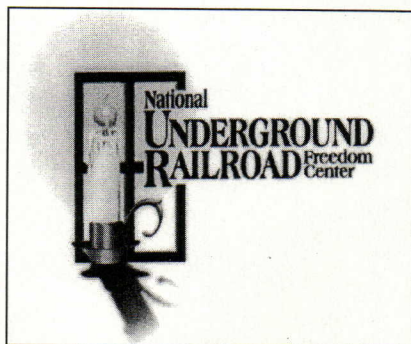
Request for Architect Qualifications

The **NATIONAL UNDERGROUND RAILROAD FREEDOM CENTER** seeks expressions of interest from multi disciplinary architect teams for the design of a 125,000 square foot distributive museum and education facility dedicated to the story of the Underground Railroad; its significance in the history and future of the United States. Proposed for a Cincinnati site near the Ohio River, the Freedom Center is planned as a centerpiece in Cincinnati's Central Riverfront development.

The selection process has two stages. The first stage consists of reviews of the team submissions by a committee. Stage two will engage selected teams in an interview/presentation of work and a design conversation that explores each team's Freedom Center vocabulary and concepts. An appropriate honorarium will be provided to the teams selected for stage two. Letters of interest must be received not later than 20 January, 1998.

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Machado and Silveti Associates' competition-winning design for new University of California, San Francisco, campus

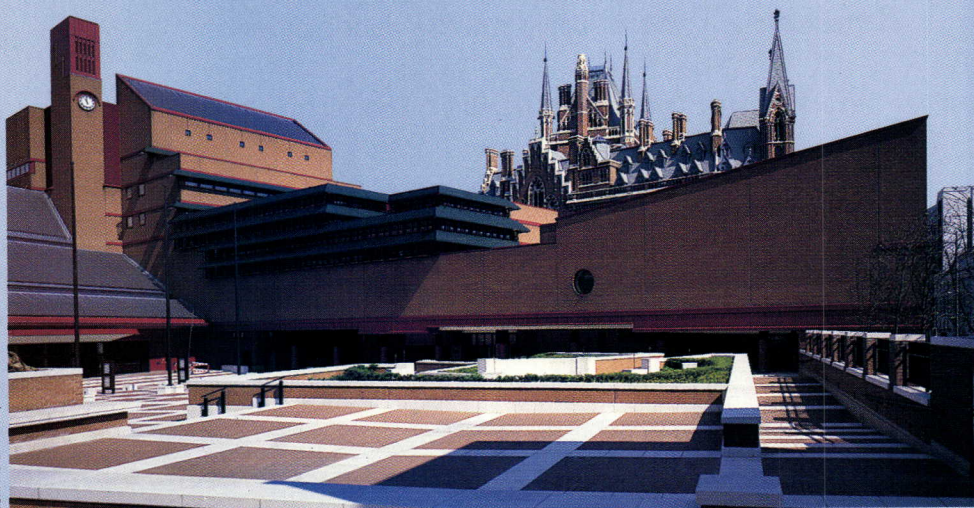
San Francisco Campus Competition

In November, Boston architect Machado and Silveti Associates won an invited competition to master-plan a new, 2.65 million-square-foot biomedical research complex for the University of California, San Francisco (UCSF). The 43-acre campus, sited on the abandoned former Southern Pacific rail yards in the city's Mission Bay district, was donated by the Catellus Development Corporation as the cornerstone of its surrounding 313-acre mixed-use development.

Machado and Silveti Associates is teaming with local architect Gordon H. Chong & Partners, landscape architect The Olin Partnership, lab consultant Research Facilities Design, and engineer Ove Arup & Partners. The group bested teams led by Shin Takamatsu; Solomon,

Architecture and Design; Steven Holl Architects; and Studios Architecture.

The competition, organized by the Bay Area Life Sciences Alliance, a nonprofit group that promotes biotechnological development, was judged by architects William Fain, Robert Frasca, Ricardo Legorreta, Furnihiko Maki, William McDonough, and Allison Williams; landscape architect Peter Walker; John Gallin, director of the National Institutes of Health Clinical Center; and representatives of UCSF and neighborhood groups. According to Williams, the jury selected Machado and Silveti's scheme because it "creates a sense of place in an area with little topography. Gardens and terraces give the right atmosphere for scientists looking for interaction." Ned Cramer



RICHARD BRYANT / ARCAD PHOTOS

Library is west of St. Pancras station (left). Architect Colin St. John Wilson stands in entrance hall (below).



Britain's New Library

The British Library has long been associated with its magnificent domed reading room at the heart of Robert Smirke's British Museum (1846) in London. But the beloved reading room closed at the end of October, and the library's 18 million books are now being moved to a controversial new facility next to the Victorian St. Pancras train station (1868).

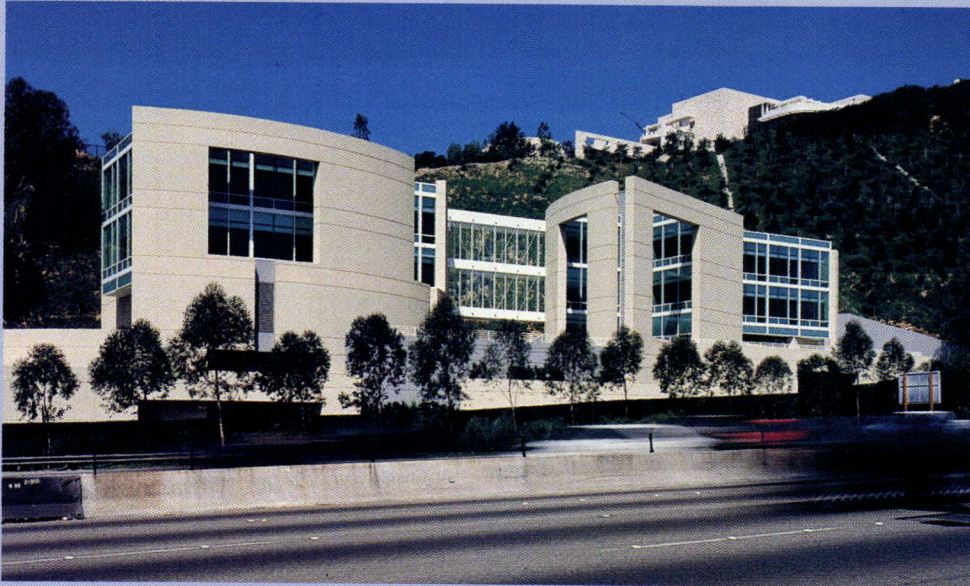
Architect Colin St. John Wilson has been working on the library since 1964, but changes in site, program, and funding stalled groundbreaking until 1982. In the interim, the building was reduced in size from 2.1 million to 344,000 square feet, and the budget increased from \$197 million to \$510 million.

The first reading rooms at the St. Pancras

library opened to scholars last month.

The new library will ultimately hold only 89 more readers than the old, 1,103-seat facility, and will open to the public next spring.

Wilson's holdover Brutalist esthetic has been as heavily criticized as the haphazard management of its construction. But architectural fashion has come full circle: The half-baked, Postmodern details tacked onto the library in the 1980s now seem more incongruous than its original, lean expanses of red brick. And the new library's computerized card-catalog system, tripled shelf space, and climatically controlled storage indicate that at least the books will be better-off for the project's many revisions.



SERVICING the Getty

Richard Meier isn't the only architect whose handiwork is now visible at The Getty Center in Los Angeles, which opens this month. A 45,000-square-foot building, designed by local architect Jeffrey M. Kalban & Associates, has quietly housed grounds-maintenance crews for the slowly opening complex since this

spring. The \$8 million annex is located at the southern foot of the mountaintop museum along the 405 Freeway. According to Getty Trust Vice President Stephen D. Rountree, its three-story, glass-and-plaster-clad form is intended to "complement, but not imitate, the Meier-designed campus above."

LIBESKIND GOES TO WAR

Earlier this year, the Millennium Commission, a branch of Britain's National Lottery, declined to fund architect Daniel Libeskind's aggressive addition to the Victoria & Albert Museum in London on the grounds that it was architecturally undistinguished (*Architecture*, October 1997, pages 36-41).

Undaunted, Libeskind is now working on another Lottery project—a new outpost of Britain's Imperial War Museum in Trafford, England, part of a redevelopment scheme including architect Michael Wilford's Lowry Center. The \$68 million war museum

comprises three scattered fragments of a giant sphere, coated in gray fiberglass resin, that Libeskind likens to "the globe broken into fragments." He adds, "The three shards together represent conflict on land, in the air, and on water." The competition-winning project is scheduled for completion in 2002, but awaits funding from the Lottery.

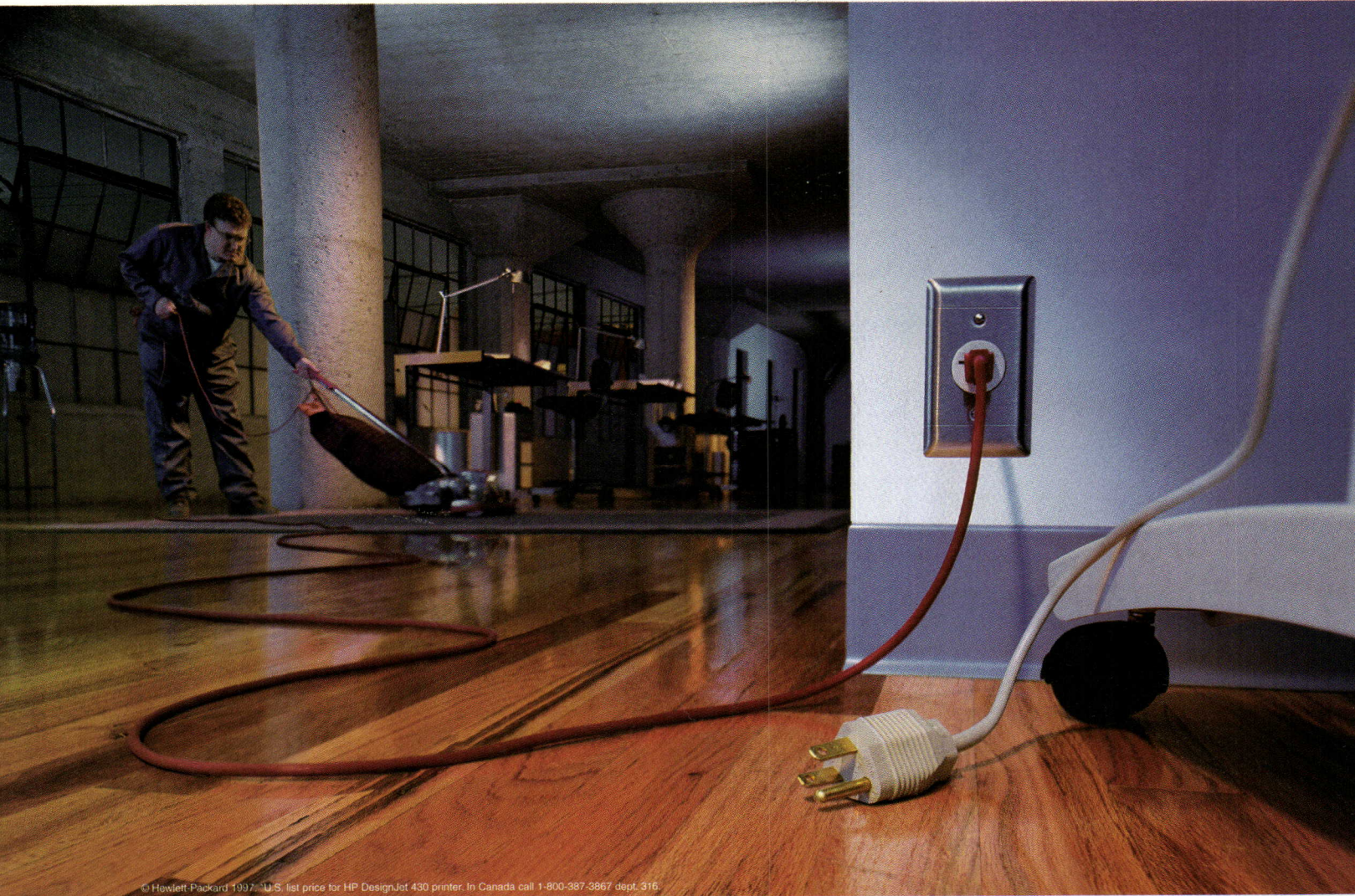
Libeskind's design for Imperial War Museum incorporates broken fragments of sphere.

BIG Basket

It's not a duck; it's a basket: NBBJ recently completed a 180,000-square-foot corporate headquarters in Newark, Ohio, for the crafts-making Longaberger Company. "Baskets are our signature," explains company Chairman Dave Longaberger.

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THE BUZZ

The Harvard University Art Museum has selected **Renzo Piano** to renovate the Fogg Museum, and to develop a master plan integrating the Fogg, Sackler, and Busch-Reisinger museums. Meanwhile, **Gwathmey Siegel & Associates**, who added onto the Fogg (1991), recently unveiled its design for the Naismith Memorial Basketball Hall of Fame in Springfield, Massachusetts.

Cincinnati's bid for architectural prominence continues to gain momentum. **Leers, Weinzapfel Associates** is the latest high-profile architect at work at the University of Cincinnati. With local firm **GGBN Architects**, the Boston-based practice is designing a 78,000-square-foot student administration center near the construction site of **Pei Cobb Freed & Partners'** College Conservatory of Music. In November, Cincinnati's Contemporary Arts Center announced a shortlist for a 65,000-square-foot building facing **Cesar Pelli & Associates'** Aronoff Center: **Wolf Prix, Elizabeth Diller and Ricardo Scofidio, Zaha Hadid, Herzog & De Meuron, Toyo Ito, Jean Nouvel, Rem**

Koolhaas, Daniel Libeskind, Eric Owen Moss, Antoine Predock, Steven Holl, and Bernard Tschumi. The winner will be named next spring.

In a bid to become the next big tourist destination in the Southwest, Scottsdale, Arizona, is currently developing the banks of its canal into a San Antonio Riverwalk-style district. Architect **Paolo Soleri** has designed a bridge spanning the canal that is scheduled to open this month.

Puerto Rico, too, is trying to up the ante for cultural tourism with two new museum projects: Work began last month on local architects **Otto Reyes** and **Luis Gutierrez's** renovation and expansion of a 19th-century Neoclassical hospital in San Juan into the new 130,000-square-foot Museo de Arte de Puerto Rico. And in the nearby city of Ponce, New York City-based **RKK&G** is developing a master plan for the expansion of Edward Durrell Stone's Museo de Arte de Ponce.

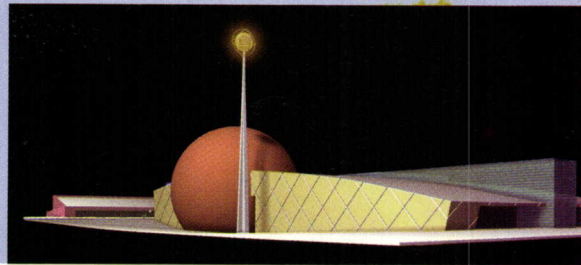
In Philadelphia, **William Lescaze** and **George Howe's** seminal, International Style Pennsylvania Savings Fund Society building (1932) is being converted into a 585-room hotel by local firms **Daroff Design** and

Bower Lewis Thrower. The retrofit is scheduled for completion in 1999.

One of Modernism's earliest preservation proponents, architectural historian and photographer **G. E. Kidder Smith**, died in Manhattan on October 8 at the age of 83. In the late 1950s and early 1960s, Smith led efforts to save Frank Lloyd Wright's Robie House in Chicago and Le Corbusier's Villa Savoye in Poissy, France, from demolition.

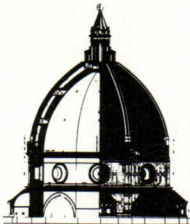
Despite widespread speculation that the AIA would appoint an architect to its vacant post of executive vice president and chief executive officer, the AIA has hired another association insider, **Mark W. Hurwitz.** Hurwitz is currently executive vice president and chief staff officer of the Building Owners and Managers Association International, and will take over at the AIA in February 1998.

Gwathmey Siegel & Associates' Basketball Hall of Fame



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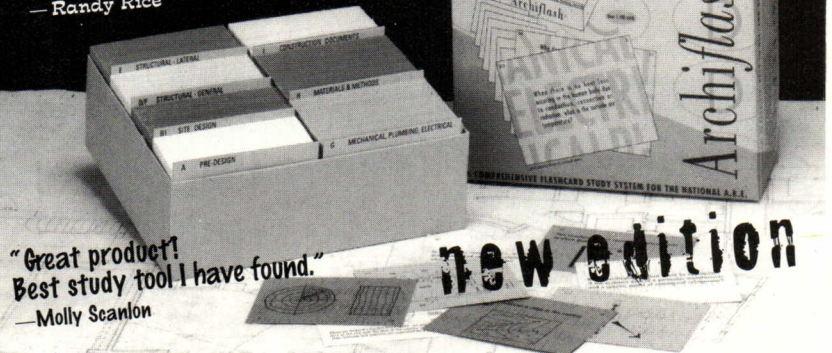
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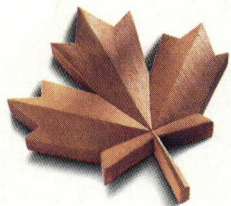
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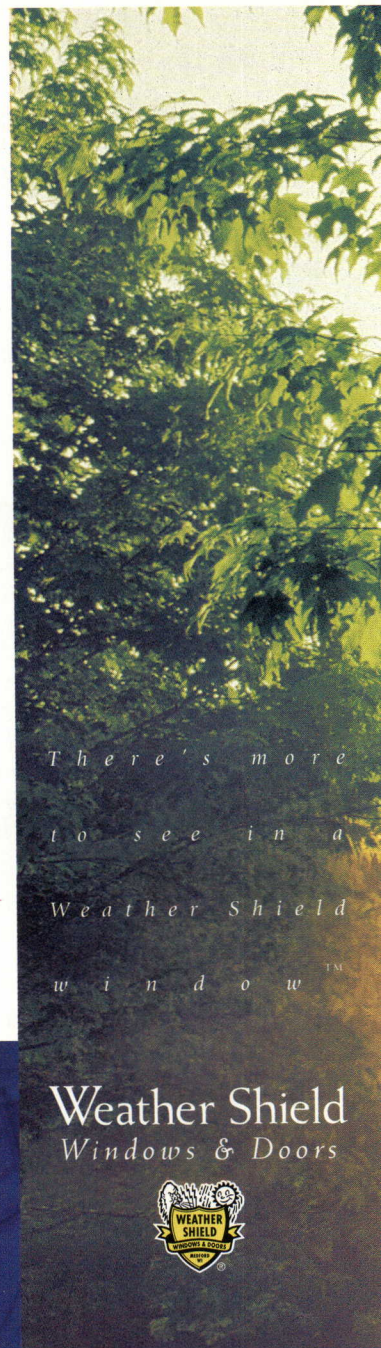
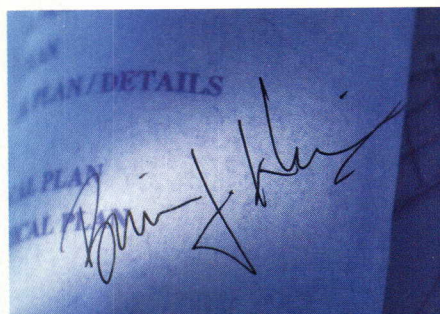
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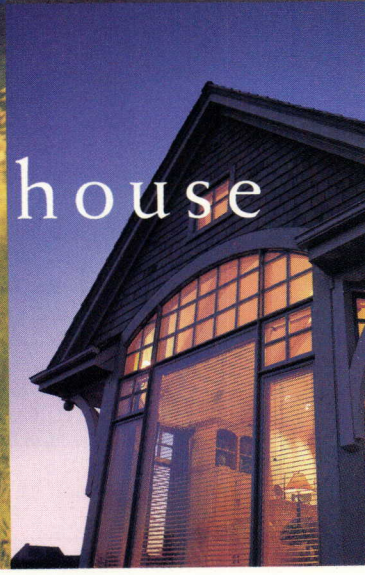


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The Canadian Centre for Architecture (CCA) in Montreal is showing off its recent acquisition of John Hejduk's archive with the New York City architect's first retrospective, *Other Soundings: Selected Works by John Hejduk, 1953-1997*, on view through February 1, 1998. But because Hejduk orchestrated his own exhibition, with the assistance of CCA Associate Curator Howard Shubert, the purchase isn't displayed to its full advantage. The lack of explanatory text and muddled mix of objects obscure Hejduk's conceptual studies without offering insight into their significance.

Rather than provide his own commentary, the architect hopes viewers (the "other" in the show's title) will bring their own ideas and impressions to bear on his "soundings," or design investigations. An obtuse essay by University of California, Los Angeles Professor of Architecture Robert Somol, available as a pamphlet

Masked Intentions

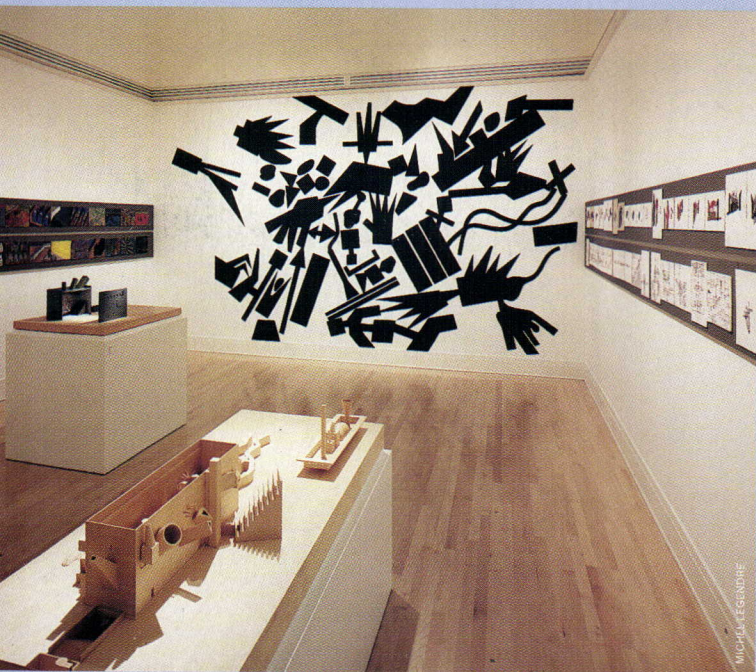
A retrospective of John Hejduk's architecture fails to explain his ideas.

at the door, offers little help. Hejduk's exhibition design is also uninformative; the rooms' untouched white walls bear no formal resemblance to his architecture. Three galleries are devoted to Kim Shkapich's books of his writings and drawings; H el ene Binet's photographs of the architect's few buildings; and eight paintings by Hejduk's Cooper Union colleague, Anthony Candido.

Only four galleries are left for Hejduk's own work. Each displays drawings and models from a different period of the architect's theoretical journey. The early "Texas House" and "Diamond House" series are the most accessible—diagrammatic studies based on the architecture of Ludwig Mies van der Rohe and Le Corbusier. From the pivotal "Wall House" series of the 1970s, Hejduk's work grows more obscure, less directly architectural, and more ravishing. The cast of architectural characters from Hejduk's recent "masques" transcend traditional form-making through their eerie anthropomorphism. But Hejduk condenses these powerful works, the most vaunted of his career, into a single gallery.

Another gallery displays the bold watercolors and detailed models of churches and chapels from Hejduk's latest book *Pewter Wings, Golden Horns, Stone Veils*, published in October by the Monacelli Press. In this effort, Hejduk largely casts off the metaphorical imagery of the "masques" in favor of traditional Christian symbolism, literally burying earlier designs such as "The Collapse of Time" and the "Wall House" in a sumptuous model for a cathedral.

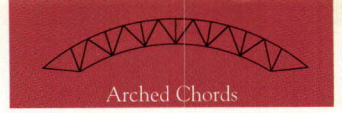
Even in this most recent work, Hejduk plays intellectual hide-and-seek. Why not make plain his intellectual debts to Gustave Flaubert, Italo Calvino, or Piet Mondrian? Or reveal the recent illness that seems to motivate the new direction of his designs? Hejduk's evasion simply denies the uninitiated the opportunity to understand his contributions to architecture and the complexities of his poetic vision. *Ned Cramer*



Hejduk's most recent work includes models of cathedral (foreground) and chapel, and plan for a new "masque" (on rear wall).



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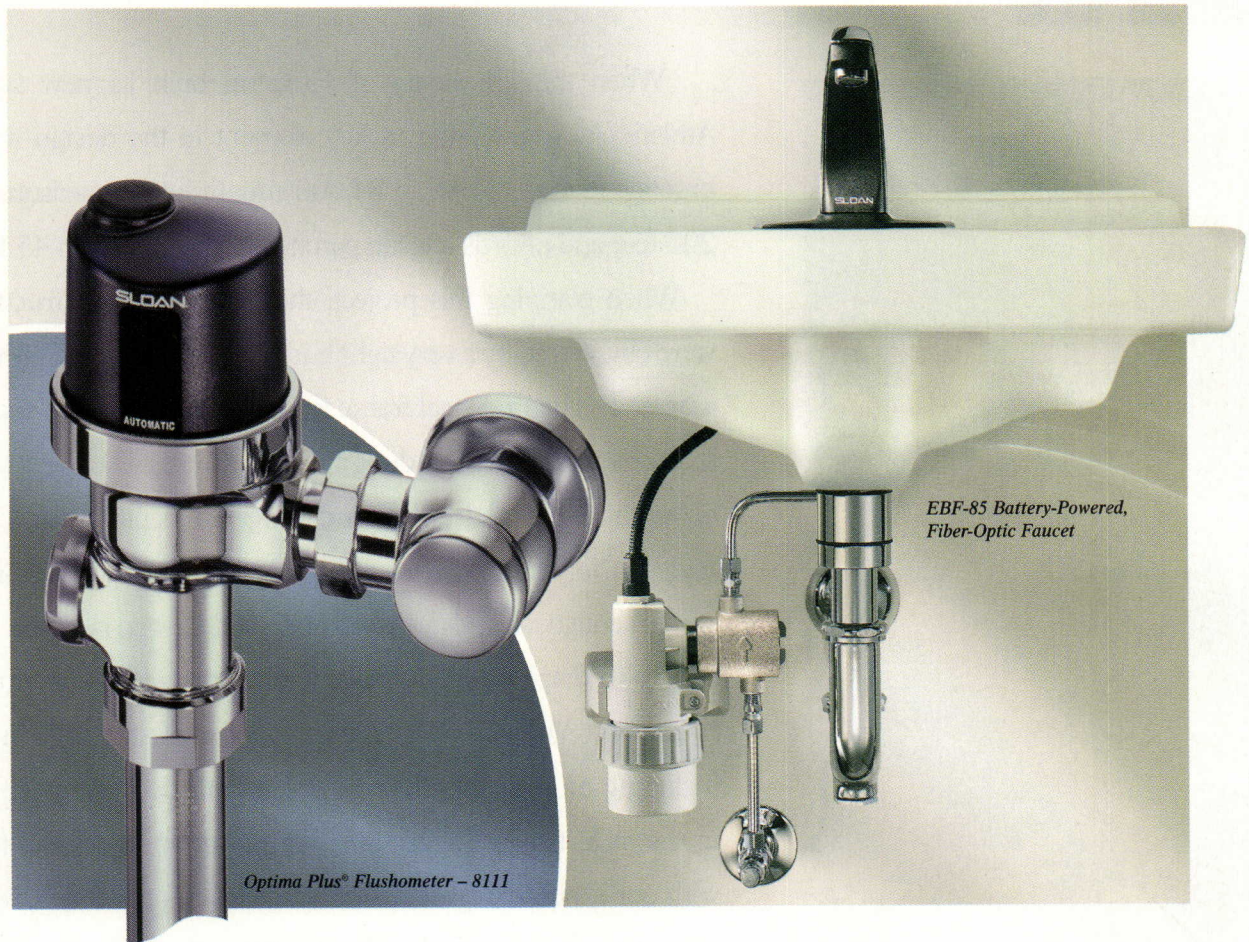
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Reshaping

Bilbao

New cultural monuments and infrastructure signal renewal in the Basque capital.



Like Marie De' Medici in a Peter Paul Rubens tableau—enveloped in billowing brocades, alighting a palatial barge, taking her first steps to glory—Frank Gehry's Bilbao Guggenheim has emerged in the international press as an apotheosis of architecture: a magnificent apparition in a shining cloak of artistic inspiration. But to the museum's Basque hosts in Bilbao, Spain, the new building is something more—the symbol driving the urban and economic renewal of the Basque capital and the region.

In the 1960s and 1970s, the industrialized city fell into an economic decline brought about by a crisis in its main industries—shipbuilding, iron and steel, and machine tools. Bilbao became the Pittsburgh of Spain, sliding down a spiral of high unemployment, environmental decay, urban stagnation, and emigration: The city lost its competitive edge in a globalizing economy.

The Basque country became a semi-autonomous region in Spain five years after General Francisco Franco died in 1975, leaving Bilbao free to set its destiny and recast its relationship to Europe: “We had to react,” says Jon Azua, a former Basque government minister who is now a partner of Arthur Andersen.

The city's economic crisis and new bureaucratic autonomy coincided with the rise of cities and regions in a uniting Europe, where national boundaries were fading. Geopolitical lines were blurring between the nation-states to favor homogenous regions. Led by Bilbao, the Basque country decided in the early 1980s to shift emphasis from an industrial to a service-based economy that would make the region and the city the dominant forces within Europe's Atlantic facade.

Basque strategists took several avenues to self-reinvention, including healthcare and educational programs, roads and communications infrastructure, and a social security network, but the rebuilding of Bilbao emerged as a priority. In particular, the city needed new cultural life: Of 17 Spanish cities and regions, Bilbao ranked fourth from the bottom in supporting the arts, according to an official Basque study.

Unlike Barcelona and Seville, Bilbao did not have an occasion like the Olympics or World's Fair to spark an overall urban effort. As a result, the Guggenheim Museum, designed by Frank O. Gehry & Associates, became, maintains Azua, “the first symbol and main project that could motivate all the other projects, to create a convincing vision of the country that we are.”

The Guggenheim occupies a highly visible bend in the Nervión River. With its sheer mass and stunning presence, it almost singlehandedly recenters the city as it redefines and recovers

Guggenheim Museum is the most visible sign of Bilbao's renewal.



Norman Foster's new citywide subway system features glazed entrance canopies (above) and vaulted concrete platforms (right).



the waterfront for pedestrian use.

The Guggenheim is only the first step in redeveloping the shipyards along the Nervión River's south bank. To reclaim the riverfront, the city closed its shipyards on the Nervión and created a superport to the northwest of the city, where the river meets the Bay of Biscay. As in many waterfront reclamation projects in industrial cities, the banks of the river offer prime real estate in the heart of the city. By removing its existing port facilities on the river, 300,000 square meters of land opened up in the city center.

A half-mile downstream from the Guggenheim stands the steel frame of another cultural monument, the Euskalduna Conference and Music Center by Madrid architects Federico Soriano and Dolores Palacios, who drew on the metaphor of the boat for their design. The Guggenheim and the music center, when completed in 1998, will bracket what is planned as a landscaped office zone designed by Cesar Pelli & Associates, Balmori Associates, and Eugenio Aguinaga.

An important link in a proposed system of riverside walks is Uribartete Bridge, a pedestrian walkway suspended on cables from a leaning arch: Santiago Calatrava designed this lyrical urban piece as a series of dynamic asymmetries, and the light, webbed structure provides a moment of tectonic levity in a mostly masonry city. Paved with light, its pathway glows at night.

Three other projects, all related to transportation, have also been conceived for strategic impact. Calatrava has designed an airport terminal that is now under construction. Norman Foster

has completed the long first line of a subway system with glazed canopies above ground and vaulted concrete underground stations neatly fitted with floating platforms and stainless steel hardware. The third transportation project, an intermodal train and bus station adjacent to the Nervión and old town, designed by Michael Wilford and Partners, awaits financing.

Despite the sizable \$1.5 billion budget, the entire renewal project does not represent a tabula rasa urbanism, but one that is incremental and, at times, surgical—a kind of leveraged planning that makes the most of a few well-planned interventions.

Seven centuries ago, Bilbao was founded on the river, and the fabric of the old Gothic city, Casco Viejo, still exists not far from the Guggenheim. This area, with ancient structures lining tight streets, is the city's spiritual core, where the collective conscious is forged by history, everyday encounter, and the afternoon paseo.

As in many medieval cities, Bilbao's urbanism is introverted, and has long been both symbolic and symptomatic of an insular Basque mentality made all the more defensive by the depredations of Franco. After all, Guernica, the town devastated by air strikes during the Spanish Civil War, is not far from Bilbao. The ETA terrorists who emerged during Franco's regime are still active, and the basic issues of Basque identity and independence very much alive.

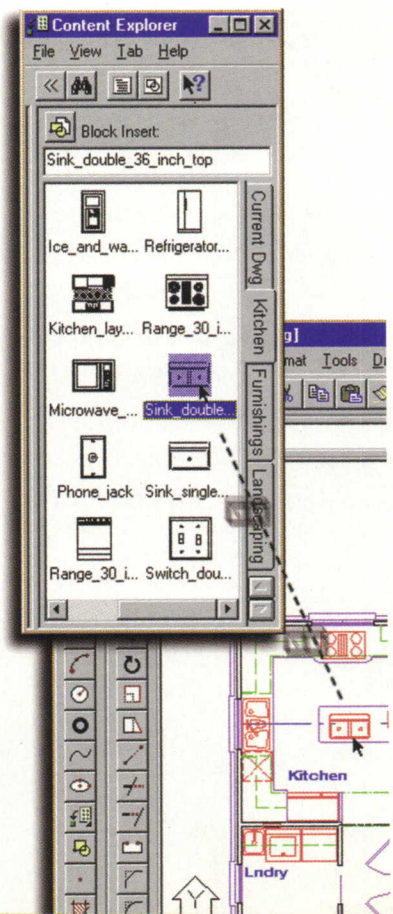
Architecture has become a strategic instrument in this highly charged political atmosphere. At first, the city proposed that the Guggenheim occupy a venerable old wine warehouse, but when

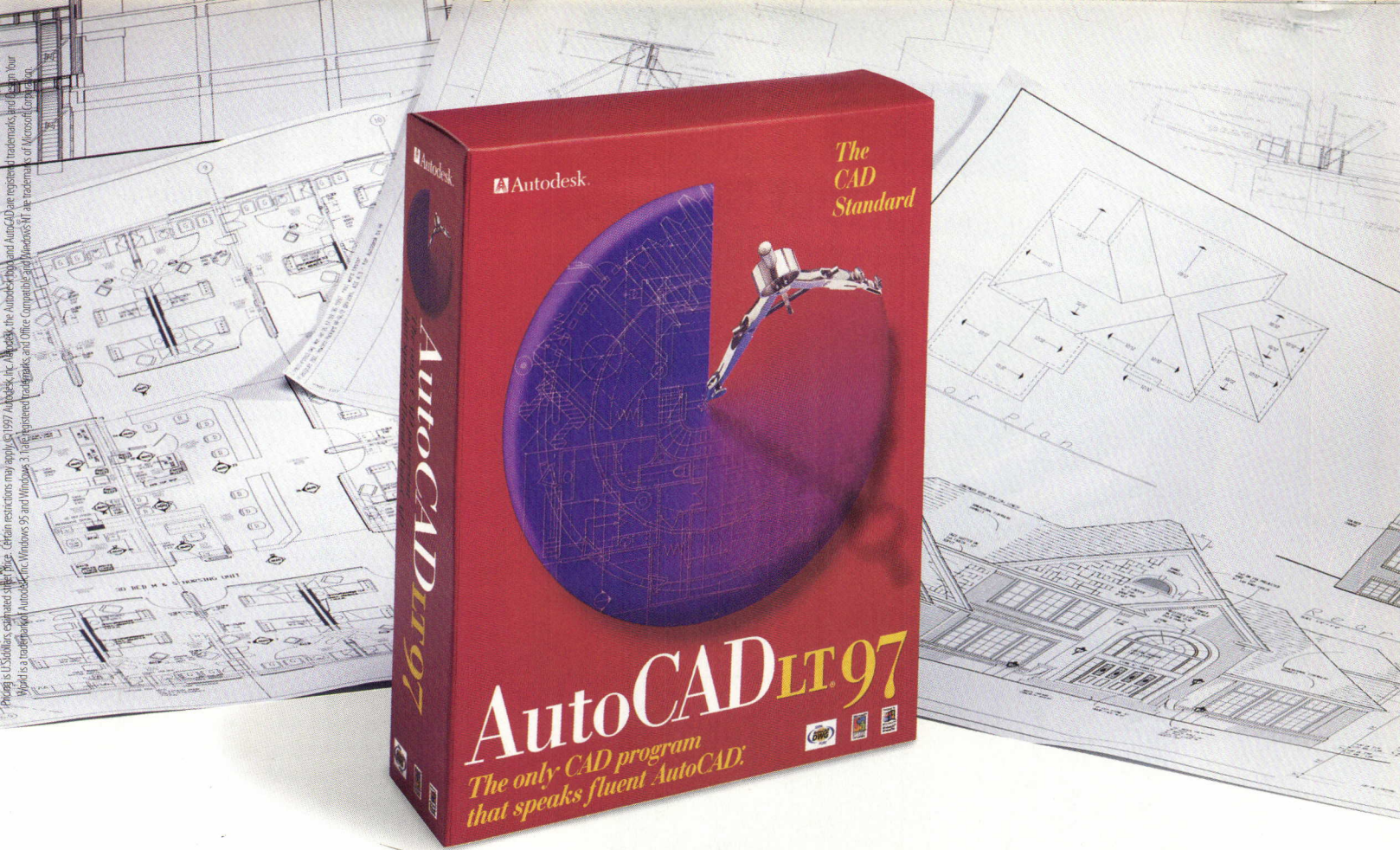
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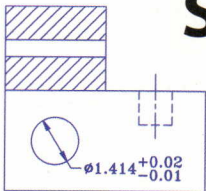
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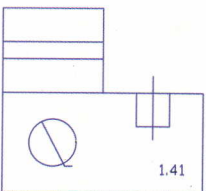




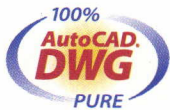
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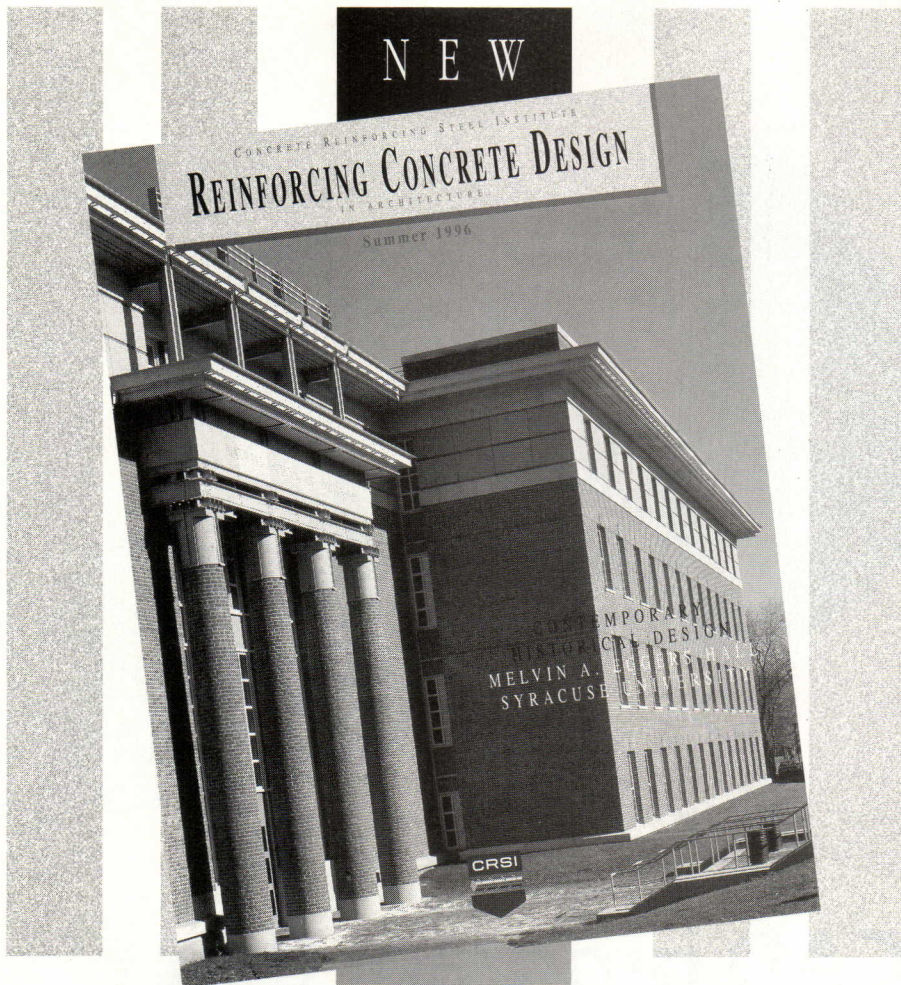
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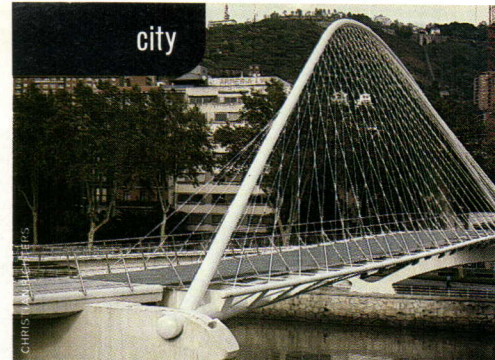
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Santiago Calatrava designed Uribitarte Bridge.

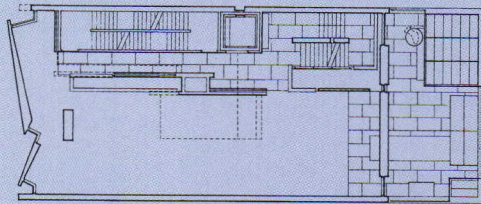
competing architects Gehry and Coop Himmelblau suggested an open riverfront site, the city broke from its introverted posture. On an open and thrusting site, Gehry's design is an object that looks out rather than in.

While the Guggenheim invigorates the Casca Viejo and other old quarters because it occupies the same urban sphere, the building exemplifies a new attitude, one that pointedly opens the city's character. “The museum has boosted our self-confidence and started a regeneration of the area,” says Guggenheim Bilbao General Director Juan Ignacio Vidarte, who directed the construction of the Guggenheim. “We want to project our real image to the world.”

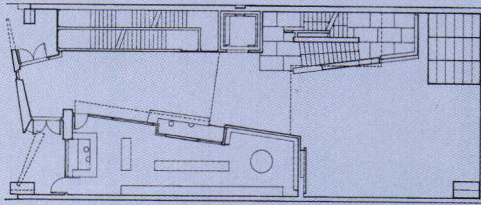
In hiring internationally known architects for the bridge, airport, music center, and subway, as well as for the Guggenheim, Bilbao has sent a clear message that the city is establishing a cultural infrastructure of openness to the world. The city's new infrastructure does not simply constitute an image makeover. The enormous publicity generated by Gehry's Guggenheim makes Bilbao's case against political insularity as it earns Bilbao a new and privileged place on a changing world stage.

“The rejuvenation program touches deep questions about how to act out our cultural life,” says Basque Cultural Minister Carmen Garmendia, referring to Basque cultural issues. “Our Basque language is primordial for us, but it's very important to keep our language while always having relations with other languages and countries. It's important to develop our country from within, so that we maintain our identity, while adapting and transforming it. The Bilbao Guggenheim has permitted us to link our history with modernity and the future.” *Joseph Giovannini*

Museum of American Folk Art New York City Tod Williams Billie Tsien and Associates



Second-floor plan



Ground-floor plan

While the Museum of Modern Art (MoMA) deliberates over selecting the architect of its next expansion (*Architecture*, May 1997, pages 46-47), another New York City cultural institution, the Museum of American Folk Art, is moving forward with its plans for a new building next door to MoMA on West 53rd Street. Designed by Tod Williams Billie Tsien and Associates on a narrow, mid-block site, the 30,000-square-foot museum will eventually be surrounded by MoMA's addition. But Williams and Tsien's sculptural, metal facade, which Williams likens to a cupped hand, promises the new six-story museum will not be swallowed up by its larger neighbor. This faceted south elevation will also face Kevin Roche John Dinkeloo & Associates' American Craft Museum (1987) across the street.

The folk art museum is currently housed in a 2,500-square-foot gallery across the street from Lincoln Center, and will retain this uptown outpost when its new facility opens in 2000. Williams and Tsien's design will greatly expand the museum's exhibition space with 15,000 square feet of skylit galleries on its top four levels. As at Frank Lloyd Wright's Guggenheim Museum, visitors are expected to ascend directly to the uppermost gallery, and proceed

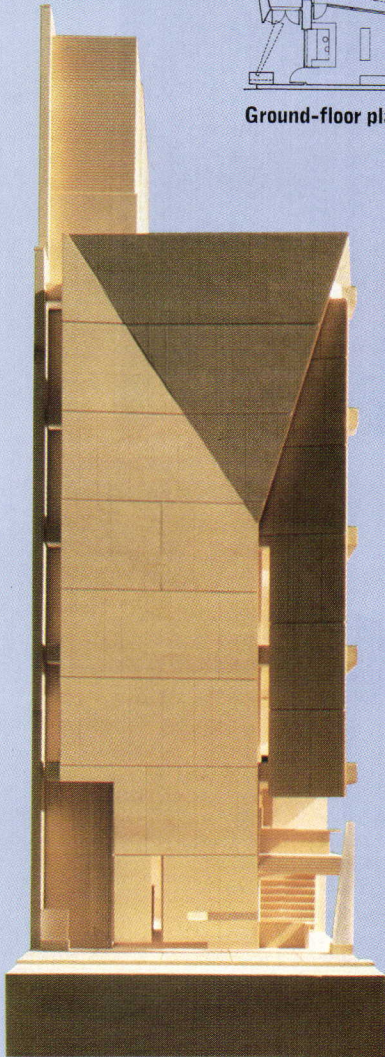
downward. An elevator and public staircase in the northeast corner of the museum links each level. This vertical circulation is enriched by two additional, single-flight

stairs within the galleries that connect the third, fourth, and fifth floors.

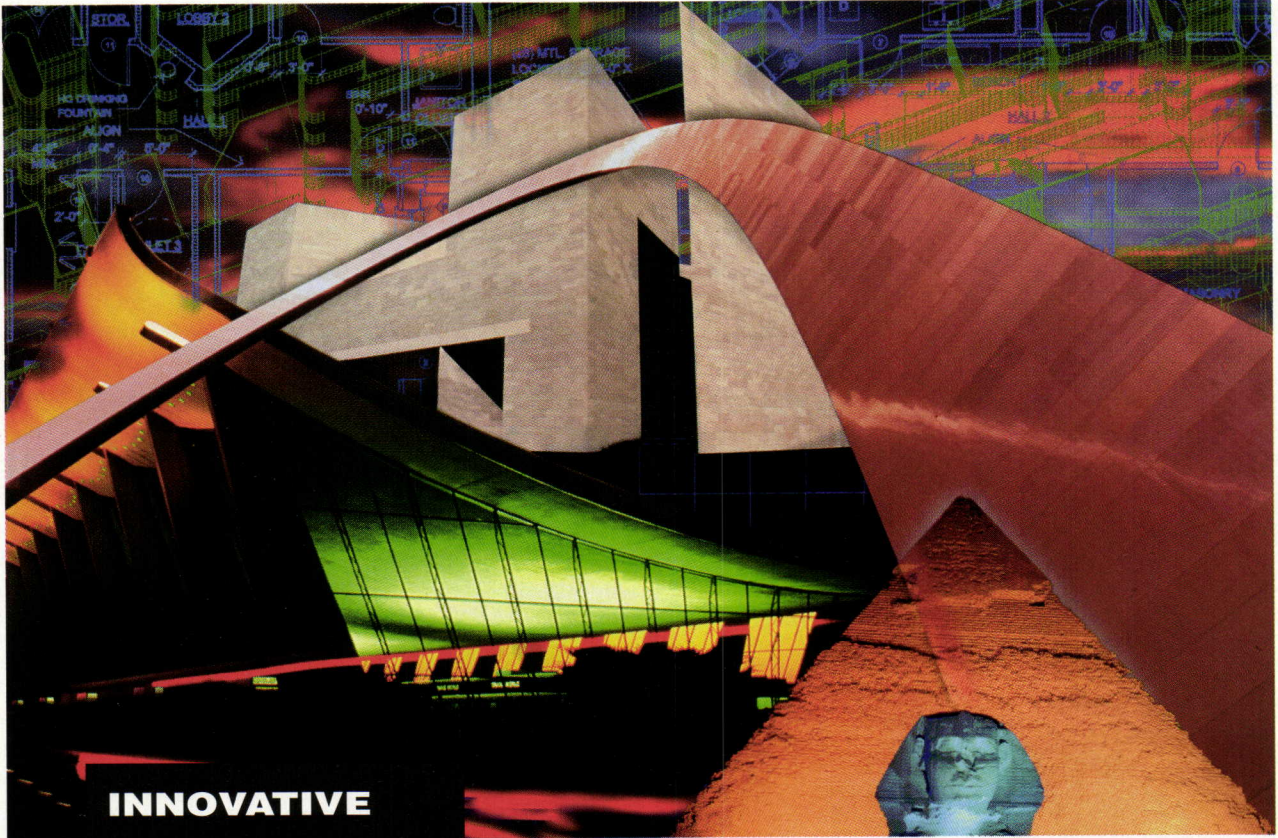
The lowest gallery level opens onto a small courtyard at the rear of the building, which the architect hopes will eventually be linked to a courtyard in the MoMA addition.

A lobby, bookstore, and café on the ground floor and mezzanine will face 53rd Street; behind them, a meeting hall will extend two stories. An auditorium and classrooms will be located on the first underground level. Offices, located on the lowest floor, will be lit by wedge-shaped skylights that project from the sidewalk at the museum's entrance. The \$15 million museum is scheduled to break ground late in 1998.

Ned Cramer



Faceted, metal-clad south facade (above) rises six stories. Sectional model (right) reveals four levels of galleries. Lobby, bookstore, and meeting hall are housed on ground floor; gallery and rear courtyard occupy second floor (plans).



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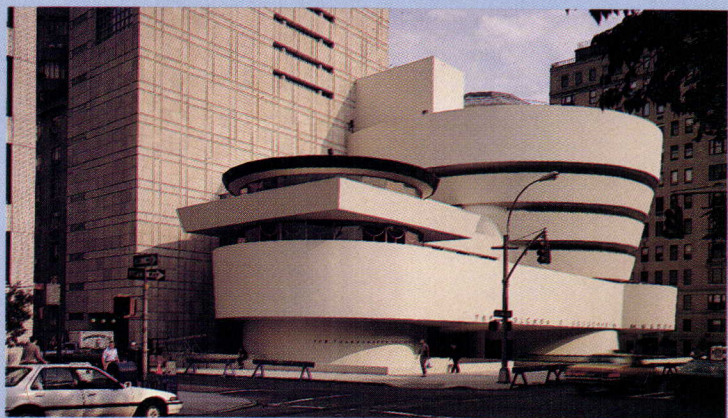
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JEFF GOLDBERG / ESTO

When Thomas Krens became director of the Solomon R. Guggenheim Foundation in 1988, he found himself with too little space to exhibit an ever-growing collection of Modern art in two museums—the landmark Frank Lloyd Wright building in New York City and the much-loved Peggy Guggenheim Collection in Venice. The New York Guggenheim was planning to expand, but it was already clear that Gwathmey Siegel & Associates' 1992 addition would not begin to address the museum's needs. Since then, Krens has added the Guggenheim Museum SoHo; the Guggenheim Museum Bilbao, which has 50 percent more exhibition space than New York City's Museum of Modern Art; and the Deutsche Guggenheim, a 5,000-square-foot gallery that opened last month in the newly restored headquarters of Deutsche Bank in Berlin.

ARCHITECTURE: You are in the process of creating a new model for an art museum. How did this come about?

THOMAS KRENS: We recognized that the art museum is this 18th-century idea of the encyclopedia in a 19th-century box. What's liberating is to make the next museum—this one in Bilbao—responsive to the art. And not with some preconceived notion of how the art should be organized. This building was designed for the large Richard Serra sculpture and the great Minimalist works of the Panza Collection. Spaces were created knowing that we have those Mario Merzes. That's what makes this place so special.

There are themes that run through this building. All the curved galleries have concrete floors and all the rectilinear galleries have wood floors. And there are subtler themes, like changes in compression. You play off opposites: box versus

Art Impresario

Guggenheim Foundation Director Thomas Krens launches museum franchises in Bilbao and Berlin.

curve or the narrative of Francesco Clemente's paintings versus the visceral nature of the Minimalist paintings of Robert Ryman and Brice Marden. That kind of contrast is fundamental to 20th-century art.

So many museums built since Frank Lloyd Wright's Guggenheim in New York seem in competition with the art they were intended to showcase.

Wright was much more dogmatic in his approach to architecture; he didn't let anyone else into the process. With Gehry, there wasn't that



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problem. Frank took me on as a partner in the design process.

The original program had to accommodate a 200-ton Richard Serra sculpture on one hand and a delicate Picasso drawing on the other. If you stand on that balcony, you overlook all these great, huge things—Robert Morris's labyrinth, Claes Oldenburg's "Knife Ship I," 12 drop-dead drawings by Arshile Gorky, Alberto Giacometti, and Ellsworth Kelly. Right there, on a very intimate scale, is the history of drawing. It is shocking. Those kinds of juxtapositions have been put together all the way along.



**Peggy Guggenheim Collection
Venice (1975)**

**Guggenheim Museum SoHo
New York City (1992)**

You have explored other architecturally adventurous projects, such as the Hans Hollein proposal for a museum built into a mountain in Austria. There has been talk about the Guggenheim taking over the American Center in Paris and engaging projects in Asia. What is your overall notion of the Guggenheim as an institution?

The museum is a constellation, not a series of branches. In the constellation concept, each star is very different. Some burn hotter and brighter, but their relationship is more or less immutable. These institutions are not meant to be repetitive. I see the Guggenheim as one museum with discontinuous galleries.

What are you doing in Berlin?

Berlin is the polar opposite of Bilbao. Berlin is only 5,000 square feet. The location on Unter den Linden is like being at Fifth Avenue and 57th Street. The issue is to look for variety in the artistic experience. What you will see in Berlin is powerful, focused exhibitions and commissions for artists to do the entire space. The logic behind that was, wouldn't it be wonderful if a museum had acquired all of Robert Rauschenberg's Combines or all of Frank Stella's black paintings? Berlin is that opportunity.

Tell us about the design process.

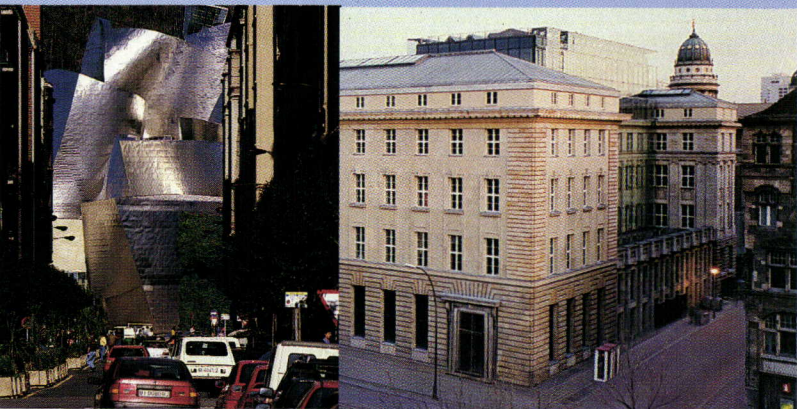
Frank Gehry gave it a form, but the essentials were in the program from the start. The huge gallery that goes under the bridge appeared in all three of our architectural competitions in 1991 because it was a program requirement. We knew that art museums had fulfilled their function, so there was no need to do what already existed. Why build another maze or make another museum of small objects? Why shouldn't a museum collect these works of huge scale since they are historically significant? All this stuff was anticipated in the design, including the more classical galleries. We wanted to come out of the sequence

of three classical galleries into curved and soaring ones.

For two years, Frank Gehry and I met at least twice a month. I would leave New York City at 8 a.m. and get to his Los Angeles office at 11:30 a.m. We'd work for 12 hours and then I'd fly back. This thing has been modeled every which way.

Frank is an architect you can actually explore ideas with. He wasn't offended by the process. He doesn't think he's a genius, which makes him a greater genius.

In Frank's earlier designs, he had three clusters of galleries



Guggenheim Museum Bilbao
Bilbao (1997)

Deutsche Guggenheim
Berlin (1997)

that he put a cap over. I thought it looked like a Grand Hyatt. You can say that to Frank and get away with it because it provoked him to search for imagery in the atrium. This resulted in references to Fritz Lang's *Metropolis* and [sculptor Constantin] Brancusi's studio. These curved, voluptuous white walls are almost straight out of Brancusi, while the glass, beams, catwalks, and balconies were a response to those 1930s visions of the 21st century. That—and the image of a rock quarry in Indiana that vestigially remains in these stone faces—became the catalyst for the atrium. I've used phrases like, "This should be a Gothic cathedral." The art is the architecture, so don't worry about giving me white walls.

What's remarkable is how few deviations there were in the installation and how well it fit together. That huge gallery was always thought of as the Minimalist and Pop Art gallery, even though nobody liked the concept—even inside the museum. But I had this intuition that these two artistic practices taking place at the same time were not so different, and Warhol becomes the fulcrum to that with his serial imagery. If you look at the imagery of pop art as a neutrality like the materials of minimal art, they're both aspects of conceptual art. To see them together is powerful.

What do you feel you've achieved?

I can't think of any other museum as practically good as Bilbao. And I can't think of any other place that gives you such an adventurous, 20th-century experience. And isn't that the idea? Would you rather go to the library and study an encyclopedia?

It's incumbent on the institutions to be responsive to the art rather than vice versa. Don't make a small box and then only collect small stuff because it takes 2 feet fewer to do it. We were never going to be the Museum of Modern Art, and being in New York we didn't need to. We could invent another rationale for ourselves and be even greater because of our gift of storytelling, which is, after all, what museums do.

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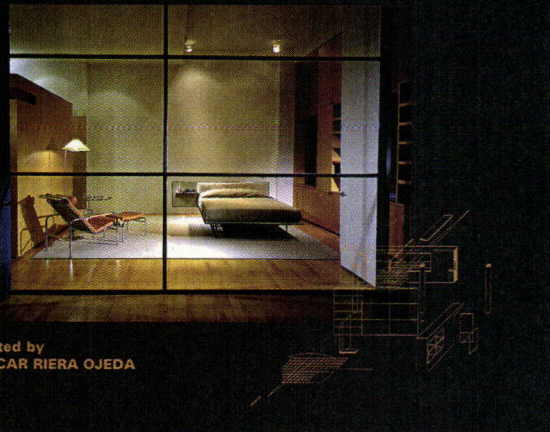
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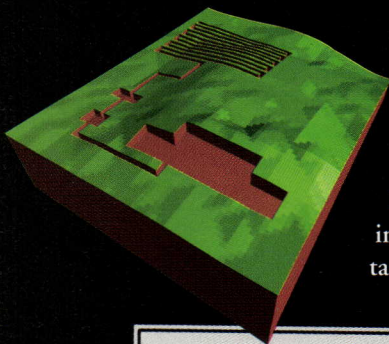
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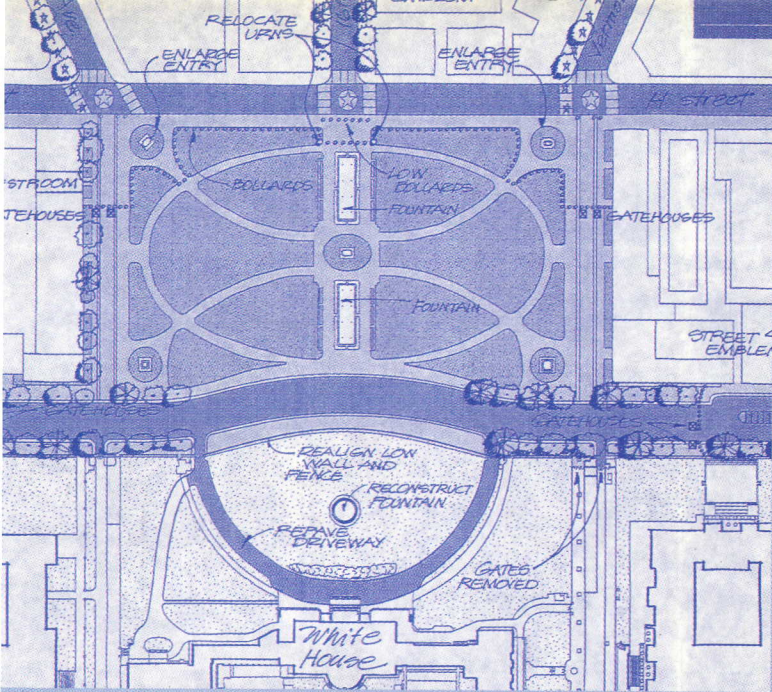
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In May 1995, following the bombing of the Alfred P. Murrah Federal Building in Oklahoma City, the Secret Service closed Pennsylvania Avenue in front of the White House in one autocratic stroke—without consulting city leaders or residents. Downtown D.C. is now divided in two by security checkpoints and Jersey barriers.

The National Park Service is under orders to beautify the closed street, erasing 170 years of urban history at an estimated cost of \$40 million. The Park Service asked several architects to write guidelines for integrating the block into the larger President's Park surrounding the White House. A series of public workshops produced five design proposals.

The Park Service's "preferred alternative," which calls for a spare pedestrian plaza, must still be approved by two federal review agencies, the National Capital Planning Commission (NCPA) and the Commission of Fine Arts. The proposal's design features are few and minimal, but will irrevocably transform this street into an eerily quiet, pedestrians-only zone.

The most prominent changes are slight curves in both the avenue and the fence fronting the White House lawn, which would prevent a future president from reopening the avenue without costly renovations. Other alterations include demolition of a small, 1913 lodge and removal of two fountains installed in 1969 at the

Avenue Shutdown

A siege mentality still rules America's Main Street.

center of the park's east and west ends. New axial fountains would be arrayed around the 1853 statue of Andrew Jackson at Lafayette Park's center. A pair of 1871 bronze urns marking the entrance into Lafayette Park from Pennsylvania Avenue would be moved to the northern side of the park. Street intersections and some sidewalks would be marked by star medallions, identifying the quarter as a place of patriotic importance. The area would be most forcefully defined by gatehouses and bollards or fencing, which represent the worst aspects of the plan because they signify the paranoia driving the park's redesign.

The good news, however, is that Congress may stop the new plan cold. A clause slipped into the 1998 appropriations for the Department of Interior (which oversees the Park Service) says that "none of the funds in this Act may be used for planning, design, or construction of improvements to Pennsylvania Avenue in front of the White House" without Congress's approval, which is unlikely. As a result, the Park Service's presentation of the plan to the NCPA was abruptly postponed last month.

A stalemate may lie ahead. The most likely result is that Pennsylvania Avenue will lie fallow for a few more years until new president reopens it. But for now, the imaginary terrorists are winning, and the American public has lost an important symbol of its freedom. *Bradford McKee*

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archi

The **GETTY** Center

GUGGENHEIM Museum
BILBAO

Masterpiece. It's a word that was applied to The Getty Center and the Guggenheim Museum Bilbao even before these magnificent cultural landmarks were completed. No wonder: The Getty Center is the most expensive arts complex ever built in this country; the Guggenheim Bilbao is the most audacious proposition ever undertaken by an American museum—to revive an entire region's economy. Architects Richard Meier and Frank Gehry rose to these challenges with a sure-handedness that reinvigorates and validates their respective design approaches. Like most masterpieces, however, the Getty and the Guggenheim are not perfect. Yet even their flaws make us reconsider the potential for museum architecture today.

Earlier this century, when there was still faith that esthetics could help create a better world, art and architecture shared a common vision. Nowadays, only a shotgun marriage brings the two together. When asked if the art was going to be upstaged by Frank Gehry's architecture at the new Guggenheim Museum Bilbao, Philip Johnson retorted, "When a building is as good as that one, f— the art." His is a common response. It is astonishing to think that a building can be considered great while failing to serve the function for which it was designed, but that is what we have come to expect.

We are in the midst of an art museum building boom—virtually every sizable city in the industrialized world has created one or two in the past few decades—and the indifference, if not outright hostility, of architects toward art has debased the very quality of the museums we are producing. According to the American Association of Museums, some 600 new art museums have opened in the United States since 1970 alone. They have become our most significant civic architecture, rivaling sports arenas and prisons in number. We turn to our most respected architects to create temples of secular enlightenment, but instead, most engage in a neurotic territorial battle for king of the creative hill.

This breakdown reached an all-time low at the Wexner Center in Columbus, Ohio, where Peter Eisenman attempted to push art out of the building entirely. The Wexner Center is the revenge of a great

architect who had been influential for more than a decade before receiving the opportunity to erect this, his first major public building.

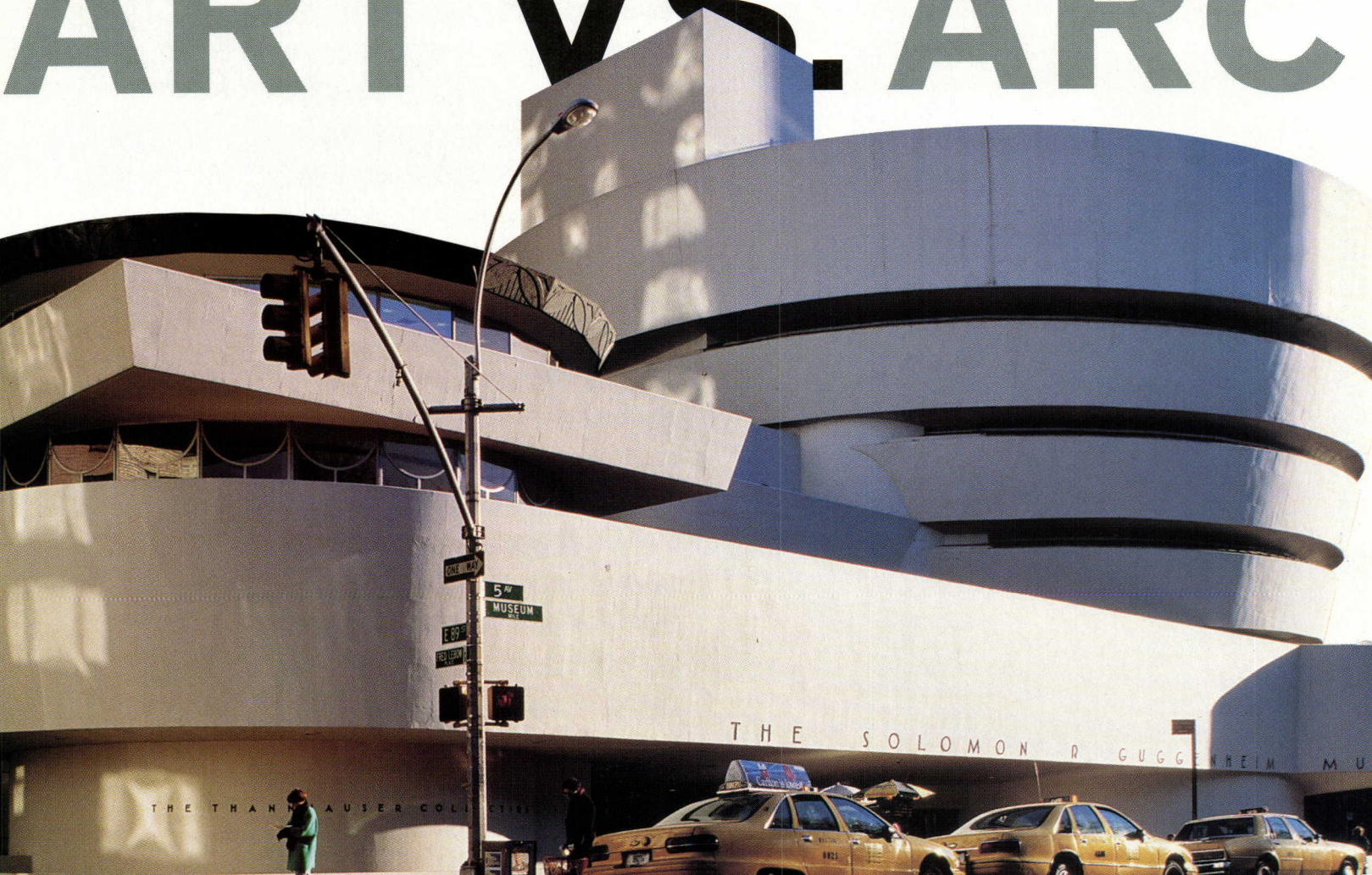
Ironically, the timing couldn't have been better for Eisenman. The Wexner was between directors, so the architect had carte blanche to build his fantasy of an art center. He produced a monument to his own architectural thinking, with small, skinny, galleries unsuitable for exhibiting most art. Much of the wall space was tucked down the inaccessible, marquee-shaped enclosures defining the rooms. The few proper display walls were broken by doors, sockets, air ducts, and equipment hatches. The curators hoped the building would challenge artists to "take on" the institution in provocative ways. But the architect had left little room for any sort of art. Even the museum's leaders seemed to believe their facility was at its best without art. They opened it empty. The building was the first exhibition.

Ever since the Frank Lloyd Wright-designed Solomon R. Guggenheim Museum opened in 1959, architects have looked upon art museum commissions as their chance to ascend the architectural Everest. The Guggenheim, widely recognized as both one of the great buildings of the 20th century and one of the most hostile environments for art, gave architects license to immortalize their own creativity while wrestling the art into submission.

But all this hostility is based on a misinterpretation of the Guggenheim. The building was designed to house Solomon R.

MUSEUMS HAVE BECOME CREATIVE BATTLEFIELDS BETWEEN

ART VS. ARC



Guggenheim's collection of nonobjective art—abstract works of modest size by Wassily Kandinsky, Piet Mondrian, Constantin Brancusi, and the like. The purity of the building, its dynamic geometry and esthetic utopia, establish an artistic spirit perfectly in step with that of Guggenheim's collection. The building only became a problem when trying to adapt its use to the vastly scaled works that did not predominate until after Wright designed the building.

The stage for the collision between art and architecture was set during the social upheaval of the late 1960s. Artists participated in the social revolution by rejecting anything that signified authority, including architecture. Conceptual artists such as Lawrence Weiner reduced art to idea, eschewing the object-making that was fueling a speculative art market. Environmental and earth artists, such as Robert Smithson, rejected the institution, choosing to work on a vast scale with the world as their studio.

But for architects, rejecting authority meant rejecting their mother art. Instead, virtually the entire architectural field rebelled against the authority of the International Style and began developing more personal architectural expressions. So just when large-scale artworks threatened the architect's territory, architecture developed a greater artistic ego.

Artists enjoy a special status, a freedom unknown to architects. Art does not have to fulfill functional needs. Its practicalities are

less obvious, revolving around wealth, power, and taste, and as an expression of these factors, belligerence is often rewarded. Indeed, artists from Marcel Duchamp to Jeff Koons have become our surrogate transgressors. Architects, on the other hand, must deal with bathrooms and air ducts. They act out in more unconscious ways—when it comes to museums, in ways that can be more lethal. In their search for artistic respect, architects like Eisenman have indeed won territory, but by forcing artworks into subjugation, creative expression—everyone's—is muzzled. Theirs are Pyrrhic victories.

"Several years ago, I participated in a conference on collaboration between art and architecture," notes artist Robert Irwin, who designed a garden for Richard Meier's Getty Center. "Every single architect said he wanted to be seen as an artist. But if architects are artists, by the same reasoning, are artists architects? Even if I built my own house, that doesn't make me an architect. There's something more complex and profound involved, having to do with ethics, expertise, and intention. But the architects dismissed this kind of thinking out of hand. My point was, if you're already an artist, what is it that I bring to the table? What do you need me for?"

At times, these territorial battles have even caused architects to attack their own kind. Such is the case with Gwathmey Siegel & Associates' expansion of the Guggenheim Museum. Certainly Charles Gwathmey deserves credit for the exemplary restoration

ARTISTS AND ARCHITECTS. WHO IS WINNING AND WHERE?

HITECTURE

by Allan Schwartzman



of Wright's landmark, for reopening the skylight to natural light, and for converting the rarely-seen small rotunda into public space. But in adding a tower that enables the Guggenheim to effectively display works of scale, Gwathmey designed three of the most awkward spaces for art in the entire city of New York, each an indifferent rectangle with a corner lopped off. The tower and rotunda connect in a way that forces this once metaphorically spinning building to an abrupt halt. For viewers inside, what had been a fantastical escape from the urban grid into a purely esthetic, nonobjective world is forever oriented to the outside world by Gwathmey's windowed tower galleries. All this for scarcely more space than a single SoHo gallery. The expansion accomplished nothing. Even before it was completed, the museum went in search of facilities at other sites.

Ask an artist, art critic, or museum curator which new museums they think are successful at displaying art, and inevitably you will hear the same brief list: the Kimbell Art Museum in Fort Worth, Texas, designed by Louis Kahn (1972); the Sainsbury Wing of the National Gallery in London (1991), designed by Venturi Scott Brown Associates; the Menil Collection in Houston (1987), designed by the Renzo Piano Building Workshop; and Piano's Cy Twombly Gallery (1995), also in Houston; and usually, that's about it.

Virtually all of these museums specialize in historical or early Modern art—works of moderate scale. The Twombly, the only of these specializing in large-scale art from the second half of the 20th century, was designed with the active participation of the artist.

Art people have become so disillusioned with recent museums

EVER SINCE THE GUGGENHEIM MUSEUM OPENED, architects have looked upon art museum commissions as their chance to ascend the architectural Everest. Wright's design gave architects license to immortalize their own celebrity while wrestling the art into submission.

they say all they want is clean, neutral space—space that will not compete with the art. Among their favorites are adapted warehouses like the Hallen für Neue Kunst in Schaffhausen, Switzerland, and the Temporary Contemporary in Los Angeles; refitted historical buildings like the Castello di Rivoli, near Turin; and the minimalist galleries of Max Gordon and Richard Gluckman.

But "neutral" white space is not a satisfactory solution. Arising out of Modernism's ideal esthetic world, neutrality proved another illusion. Clean, white space functions perfectly well for Modernist masterworks, but it makes most contemporary art look dull. Such spaces fail to create an appropriate context for new art; their purity feeds the alienation of a "general" public from an "initiated" one.

The tension between art and architecture in recent museum design is not simply an ego battle between artists and architects. It mirrors the complicated and unclear relationship between art and the world, art's purpose and where it belongs. It is nothing less than an expression of the dysfunction of high art in an era of pop culture.

This confusion was responsible for Cesar Pelli & Associates' dull expansion of the Museum of Modern Art in New York. The new facility was dedicated in 1984, at a moment of consolidation for Postmodernism. But MoMA's defenders of the art faith had lost confidence in new art, or rather in Postmodernism, an art that challenged Modern art's cult of genius and that looked to the popular world for inspiration. The expansion also coincided with a reconfiguration of the economics of high culture.

So just as MoMA's leaders recognized the need to accommo-

date a vastly expanded collection and audience, they were ambivalent about whether theirs should continue to be a museum of contemporary art. Instead, they opted for a design whose priority was to merchandise its bona fide masterpieces. Practical matters like traffic flow dictated the design and MoMA's hallmark intimacy evaporated. The result was a cold shopping mall for cultural tourism. Its focus is its escalator—culture à la Bloomingdale's.

More troubling still are recent museums whose facilities unconsciously transmit mixed signals, like the new Museum of Contemporary Art in Chicago, designed by Joseph Kleihues. The museum was created in 1964 by a group of Jewish contemporary art collectors who were denied access to leadership roles at the Art Institute of Chicago, the bastion of power in that city's social circles.

Last year, many of those same Jewish founders built a hard, intimidating museum suggesting the fascist buildings of Nazi architect Albert Speer. The exhibition spaces are cold and indifferent, and Kleihues has divided them to create a grand atrium, the spatial archetype through which architects have been dominating museums since I.M. Pei & Partners designed the National Gallery's East Wing in Washington, D.C. (1971-1978).

Equally problematic is the new San Francisco Museum of Modern Art (1994), designed by Mario Botta. From the outside, the museum looks something like an armory dressed in Siennese Renaissance detailing—perfectly apt references. But inside, expanding on the MoMA Pelli standard, Botta has designed an entrance, grand staircase, and terraced levels that are all

shopping mall, with a lot of razzmatazz marble.

In reality, however, this building does not attract the traffic of a Trump Tower, and while art can be popular, to sell a museum as a shopping mall is destined to disappoint. On the other hand, the galleries are based on classical grand museum halls. While they may lack character, they are spacious and flexible. If Botta hasn't reconciled the territorial tensions, at least he has declared something of a truce—the architect has his space and the art has its own.

At the Seattle Art Museum (1991), Robert Venturi and Denise Scott Brown focused their thinking about the institution on the staircase. Metaphorically, the staircase is central, lifting the viewer up to art that is intended to lift the spirit. It is the mediation point between public and private, between the building and the galleries, between architecture and art. It is the architectural component that, more than any other, sets the tone for experiencing the museum, that articulates the museum's theater of presentation.

The Seattle museum is practically all staircase—a grand, curving extravaganza worthy of Busby Berkeley. The problem is that it ends abruptly at a set of exit doors. The architect sets up the visitor for a spectacular experience of art, but the design encourages you to leave before you've ever made it to the galleries. Much space is devoted to directing traffic that doesn't exist, while the art objects on view are relegated to a narrow sequence of rooms. Less than a decade after opening this new facility, expansion is once again a topic of discussion in Seattle.

Must a great architectural experience be created at the expense

of art? The new Guggenheim Museum Bilbao by Frank Gehry proudly declares there is room for both. It is nothing less than a reconciliation between art and architecture, for it is both an extraordinary building and an extraordinary building for art.

From Frank to Frank and from Guggenheim to Guggenheim, Bilbao is a critique of most museums built in between. So why isn't Gehry threatened like all the others? He is friendly with artists, and he understands art—the influences of Richard Serra and Claes Oldenburg in particular are evident. More significantly, Gehry is a sculptor and he knows it. Viewers arriving from the riverside must circumnavigate the building before entering it, and are led to examine the biggest sculpture the Guggenheim has ever acquired. Additionally, Gehry is a smart man from Hollywood. He understands that good collaborators make his artistic strengths shine. And so he unlocks the secret to greatness in museum architecture: By giving the art optimal display, he enhances his own achievement.

Gehry doesn't play his trump card on the staircase. In fact, the entrance is the most humbled part of the building. Here, Gehry breaks tradition. Visitors don't ascend the staircase, they descend down it into a modest foyer. In classic Wrightian manner, Gehry cleanses the senses, but this is all a set-up for the liberating experience of the soaring, topsy-turvy atrium that follows.

In the atrium, Gehry has bested Wright. This central space is grand and reverential, but also whimsical and childish—part Notre Dame and part Disney, sprinkled with bits of humor and sex. Using symbolism common to art and architecture, Gehry has

In London, the Tate Gallery is creating a new facility out of an old power station on the Thames, designed by Jacques Herzog and Pierre de Meuron, who, like Gehry, are known for familiarity with artists. Their design for the vast Tate Gallery of Modern Art at Bankside attempts to provide both strong architectural and art experiences. "Museums today are like intensive care units for art," observes Harry Guggler, the project architect. "They're terrifying."

And then there's the Getty. A lot of disdain has been directed at the Getty for unapologetically celebrating Western European art by erecting a billion-dollar Olympus atop one of the most visible hills in the wealthy, white suburbs of Los Angeles, a hygienically perfect place where one imagines "the boys from Brazil" are being cloned.

Such an architectural statement, say the Getty's critics, continues to distinguish the white haves from the "other" have-nots; it fails to properly serve a centerless city where there is such abundant cultural diversity that whites are the minority and there are more Samoans than there are in Samoa. Furthermore, the argument goes, there was really no need to bring together the Getty's six different institutes. More urban good and ethnic healing could have been achieved by spreading the Getty's billions throughout the various communities that comprise Los Angeles.

The Getty may not embrace multiculturalism, but in looking at the road taken, the Getty Center is likely the last great hurrah for Western European culture, the most lavish celebration of its highest achievements and its cultural authority. Not since the Medicis has so much money gone into art. The Getty has spent more than

THE TENSION BETWEEN ART AND ARCHITECTURE in recent museum design is not simply an ego battle between artists and architects. It mirrors the complicated and unclear relationship between art and the world, art's purpose, and where it belongs.

combined the futuristic euphoria of Fritz Lang's *Metropolis* with the Modernist perfection of Constantin Brancusi's sculpture.

Radiating off the atrium, in three separate wings on three floors, connected by bridges that snake around the atrium like Wright through the looking glass, are many different kinds of spaces designed to accommodate many different kinds of art. Whether in traditional rectangular galleries or fantastical ones whose walls tilt and curve, in a hangarlike gallery with as much exhibition space as the entire Whitney Museum or in one as intimate as a small hotel room, Gehry suggests a model that is both heroic and fun.

One prays that Bilbao is not an aberration. And there is reason to believe it is not. A new generation of leaders at the Museum of Modern Art in New York are planning to undo Pelli. They are reaffirming their institution's link to contemporary thinking. They have been acquiring art with a singular ambition, and have purchased a contiguous structure, the Dorset Hotel, in order to expand again.

This time, maintains MoMA director Glenn Lowry, the design is intended to create a more dynamic relationship between the historical works that have made MoMA's the preeminent collection of its sort and contemporary works honoring the creative process by which art is produced. "We not only need more space, but different space," says Lowry. "I want to create a much more synthetic reading of Modern art than we have so far done at the museum, and to do so in a way that recognizes the adventure of Modern art as an experiment that is still being played out. Therefore, our architecture has to open up possibilities rather than to shut them down."

a billion dollars on developing its collections, and its endowment has grown to more than \$4 billion. Yet the Getty Center is not the crowning glory of Richard Meier's great career. How could it be? More voices went into this project than the building of Babel.

While many may find the Getty Center to be too grand and too bland, in the museum—the destination for most visitors—Meier has achieved something rare and extraordinary: a great art experience. All the painting galleries are lit naturally. They are capped by sloped ceilings that create a cone of natural light with louvers that automatically adjust every 20 minutes to provide continuously optimal conditions. The effect is strong but not distracting; these crowns of light oxygenate the viewing experience.

Moreover, Meier designed the museum with the psychology of viewing in mind—no museum fatigue here. From the period rooms of European furniture to the painting galleries, every rich sweep of art viewing is punctuated by a rest in either a garden or on a terrace that shows off the greatest views of Los Angeles.

Perhaps buildings like the Guggenheim Museum Bilbao, and the new Getty Center will set to rest the petty turf conflicts and sibling rivalries that have marred so many of our museums. Then the Wexner Centers and MCA Chicagos, for all their indifference to and rage at their tenants, will stand as important symbols of battles that led us to realize there was no longer need for the war.

New York-based critic Allan Schwartzman has written about contemporary art for Art & Auction, the New York Times, and the New Yorker.



THE SEDUCTION OF

BTLBAO

By Joseba Zulaika

Woody by the Guggenheim Museum, the Basque people gained an architectural masterpiece, but at what price?

There's something odd about architectural criticism that isn't interested in the viewpoints of the very subjects who paid for and will live with the building. But why raise messy questions of context or function when the art is so sublime? That is how most American media have treated Frank Gehry's masterpiece, the Guggenheim Museum Bilbao. Not a word is spoken of how Bilbainos have experienced the museistic ordeal. No need to ponder the bare facts of local economic or artistic circumstances, the bluff and deception that made it happen. Looking natives in the eye might be too uncomfortable for an architecture critic.

But people should know why the Basques, an unending source of enigma, embraced the project when even Gehry's hometown of Los Angeles was unwilling to support a similar masterpiece, his Walt Disney Concert Hall. They should know about the ruined factories and polluted devastation, the very stuff of Bilbao's esthetic of "the tough" so acclaimed by Gehry. And perhaps they should also know something about the politics of bringing star architects to Bilbao, including the unfortunate politics by which the terrorist group ETA has turned Gehry's building into a target, a new flashpoint in a campaign of violence that has cost nearly 800 lives over the past 30 years in the region.

Bilbao used to be a place of edifices with real fire at their center—the great steel plants of Altos Hornos de Vizcaya, tall furnaces of liquid fire on the dark left bank of the Nervión River. All are gone, but their ruins remain. The extinguished fires in those high furnaces symbolized an era in which British capital, rich iron mines, Basque aristocratic families, and cheap immigrant labor conjoined to create a mining and steel bonanza. The 10-mile corridor from Bilbao to the Atlantic was producing 20 percent of the world's iron ore at the turn of the century before the mines were depleted around 1910.

Today, Gehry's titanium artichoke is meant to help fill the gap of 40,000 jobs lost through the demise of the Altos Hornos. The old blast furnaces have been replaced by a state-of-the-art steel mill employing 370 people. Unemployment in the city remains at 25 percent, and 60 percent of young Bilbainos don't have jobs. For Basques, it is stunning that their declining city should be the place for a historic masterpiece such as the Guggenheim. But the new museum was conceived by a man who is obsessed with publicity, a consummate player in masterpiece theater: Thomas Krens, director of the Guggenheim

Museum in New York. Krens trained in political science and business. His Guggenheim exhibits were deemed "disastrous" by critics, almost unanimously. But by Krens's own admission, curatorship is not his primary expertise. "Seduction—that's the business I am in," he told me in an interview arranged by Gehry. "I am a professional *séducteur*. I don't earn the money but I raise it. I seduce people into giving \$20-million gifts. I am in a way the greatest prostitute in the world."

Krens proved as much when he came to Bilbao with his grand plan for establishing museum franchises all over the world, nicknamed "McGuggenheims." The key to the equation is that the host city pays the bills, while New York runs the show. Krens tried the idea unsuccessfully in several European cities—Venice, Salzburg, Vienna, Graz, Madrid, and Moscow, to name several. In the meantime, a financially strapped Guggenheim had to repay about \$7 million a year for the \$54.9 million in bonds issued for its 1992 renovation and expansion on Fifth Avenue.

Krens's whole operation was astutely understood by art critic John Richardson in a 1992 *New York Review of Books* article as "conceptual art." As Richardson wrote, "Krens' incessant talk of 'strategies' recalls the 1980s (so does his taste in art movements), when some financiers devised strategies ... to enrich themselves at the expense of virtually everyone else." As to his specific plans for Bilbao, Richardson's ominous prediction (already a sad reality) was that "the project is more likely to provide terrorists with a new target than to attract businesspeople and tourists." The museum brought all three to Bilbao during its opening week.

But unlike the other cities Krens approached, Bilbao was a city desperate enough, with its steel and shipbuilding industries in shambles, to engage in any type of gambling proposed by the New York promoter. Bilbao had other ripe qualities; one is that local politicians run their own treasury and possess the power to levy their own taxes. These elements were crucial to Bilbao's deal.

The only reference to money in most articles on the Guggenheim Bilbao is the routinely stated "\$100 million," the cost of Gehry's building. The best informed, and uncontested, numbers were provided by Ramon Zallo, author of several books on Spanish cultural industries: The Guggenheim operation will cost the Basques 36 billion pesetas (\$250 million at the present exchange rate; when the deal was signed in 1992, it amounted to \$360 million) by 2000.

One way to put the numbers in perspective is to consider that the museum will cost each of the 2.1 million Basques over \$100 apiece. And this for a museum that will be managed entirely from New York by a private institution. If one were to limit the per capita share to the inhabitants of the

city of Bilbao itself, it amounts to \$700. Just imagine the prospect of asking each New York taxpayer to pay \$700 for a private museum!

And that's only the beginning of the story. The museum, along with a new subway and concert hall, is expected to change the city's image, set tourists "flocking to Bilbao," and reinvent a new service-oriented city. What is certain is that the museum will require a public subsidy of \$7 million to \$14 million per year. To give you an idea of what these numbers mean to Basques, the annual research budget for the Public Basque University's 3,500 professors and 60,000 students is \$15 million.

Also by way of comparison, the American Center in Paris, another Gehry masterpiece, generated an operating deficit of \$3 million in its first 19 months. Solution? Close it and put the building up for sale. Meanwhile, the funds going to the Guggenheim were immediately slashed from the local government's subsidies for Basque culture, which pay for libraries, cinema, theater, art, literature, popular crafts, and publications.

But money is not the most shocking thing about the Bilbao Guggenheim. There is the intellectual and artistic farce of such a museum not having its own resident artistic director—it is a mere satellite run by Krens from New York.

Soon after arriving in Bilbao in the spring of 1991, Krens went jogging and, about 100 yards from his hotel, lo and behold—he discovered that Bilbao had a riverside. Krens was overtaken by "an epiphany." He returned to the hotel and, in a very excited state, called his Basque entourage to let them know he had found the exact place for the museum, incorporating the bridge into the building.

After yearlong secret negotiations, the deal between the Guggenheim and the Basque administration was signed in 1991. The signatories for the Guggenheim were Krens and Gianni de Michelis, then the Italian minister for foreign affairs and a member of the Guggenheim's

Board of Trustees, who has since been charged in 18 corruption cases. Signing for the Basque administration was Councillor of Culture Joseba Arregi and the head of the Provincial Council, Jose Alberto Pradera.

And the public? You would think that democratically elected officials would need to consult experts, artists, or cultural agents about a deal with a private foreign institution that would take 80 percent of all the monies for the Basque country's museums. So how did these artists, writers, intellectuals, and culturally involved people react when they read in the papers that the agreement had been signed? More than 400 of them signed a letter of protest asking for full disclosure about the deal. They were not only ignored, but even insulted by the promoters, one of whom called them "dogs." The text of the agreement was never made public—a clause within it forbids its release.

One might wonder how a museum that is going to generate indefinitely an annual deficit of about \$10 million is going to revive an economy. But one should not ask too many questions when dealing with a "miracle," as critic Herbert Muschamp breathlessly dubbed Gehry's museum in the *New York Times Magazine*. Absolute secrecy and benevolent manipulation of the poor "natives" in the name of democracy is essential. What else can they do but pay?

Artists, architects, writers, and tourists will love Gehry's masterpiece. Uplifted by this view of "the heart of American art" and perhaps while uttering some esthetic piety about "beauty as a form of truth," we might pretend that there is no complicity between the "extravagant optimism" of our tourist's gaze and the ruins confronted by the people of Bilbao. The unmentioned possibility, the one that has Basque officials really worried, is that the miraculous building might become a millstone hanging from the neck of Basque society, whose economy and culture might be overwhelmed by the museum's great weight.

Joseba Zulaika is an associate professor in the Basque Studies Program at the University of Nevada, Reno. His most recent book, Chronicle of a Seduction: The Guggenheim Bilbao, was published in May.



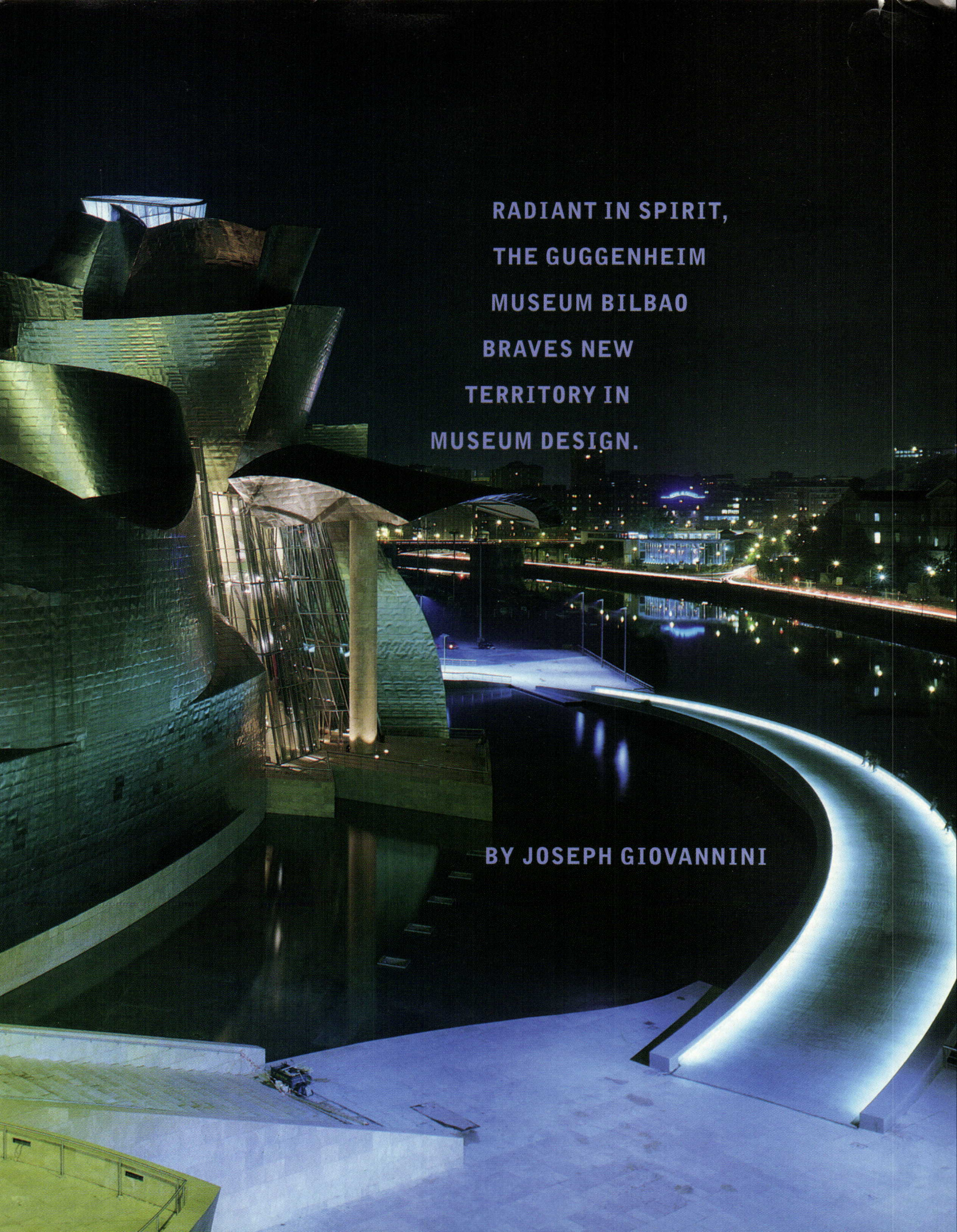
RICHARD BRYANT

**Krens seduced Bilbao with his
grand plan for establishing
museum franchises around the world.
The host city pays the bills,
while New York runs the show.**



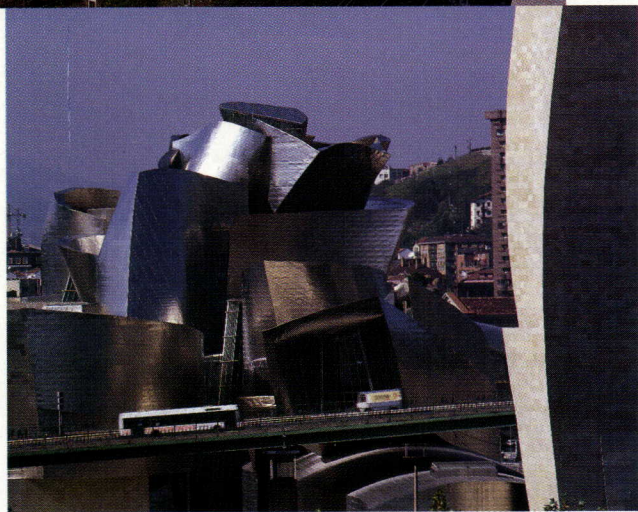
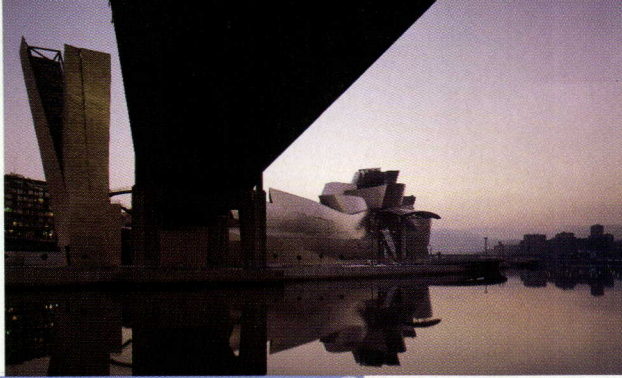


GEGHRV'S
REIGN
IN SPAIN



**RADIANT IN SPIRIT,
THE GUGGENHEIM
MUSEUM BILBAO
BRAVES NEW
TERRITORY IN
MUSEUM DESIGN.**

BY JOSEPH GIOVANNINI



Gehry's titanium-clad Guggenheim fronts Nervión River (top). Boat-shaped gallery reaches beneath De La Salve Bridge toward museum's Spanish limestone-clad tower. West facade (center) straddles railway line and overlooks container loading area. Elevated roadway of suspension bridge extends past curvilinear forms of east elevation (above).

Squint on a blustery day from the bridge crossing the Nervión River in Bilbao, Spain, and the water, mountains, clouds, and the new Guggenheim blur into a majestic tableau of earthly and aerial turbulence. Down to the curves of its thoracic cages, Frank Gehry's museum belongs to a family of nonlinear phenomena scientists call complex.

As though in a state of transition between solid and liquid, the volatile facade allies more with the magnificence of a larger, more complex natural order than the tidy architectural mien of this proper Basque capital. Churning surfaces play off each other in ever-revolving relationships, climaxing in a stormy spray of titanium at the edge of order and disorder. The twisting walls and roofs, meeting at edges that form hypnotically undulant lines, captivate the eye and draw the body into their swim. You give into the motion and surrender to the flow of a changed gravitational state. It speaks to your inner ear.

In 1987, Gehry built the Fishdance restaurant leaping by the side of an elevated highway in Kobe, Japan, and a decade later in Bilbao, he simply multiplied the single fish and lopped off the heads and tails to orchestrate a school of abstract piscine shapes bounding by the side of another bridge in another country. The museum rests on a stone base, but the real plinth is the reflecting pool adjacent to the Nervión from which the forms surge.

On the site of a former shipyard, the architect builds on Bilbao's strengths while creating a postindustrial, post-rationalist vision: The language of biomorphic curves eschews the Modernist assumption of simplicity based on standardized parts and repetitive assembly-line fabrication.

The aerospace computer Gehry used to develop his handmade models of billowing sheets of paper taped together liberated him from industrial standardization—without incurring punishing construction costs. The computer that has made clouds, waves, and mountains scientifically intelligible, and chaos science possible, is the same instrument that made Gehry's tumult practicable. The building exemplifies the shift from mechanics to the electronics of our postindustrial age.

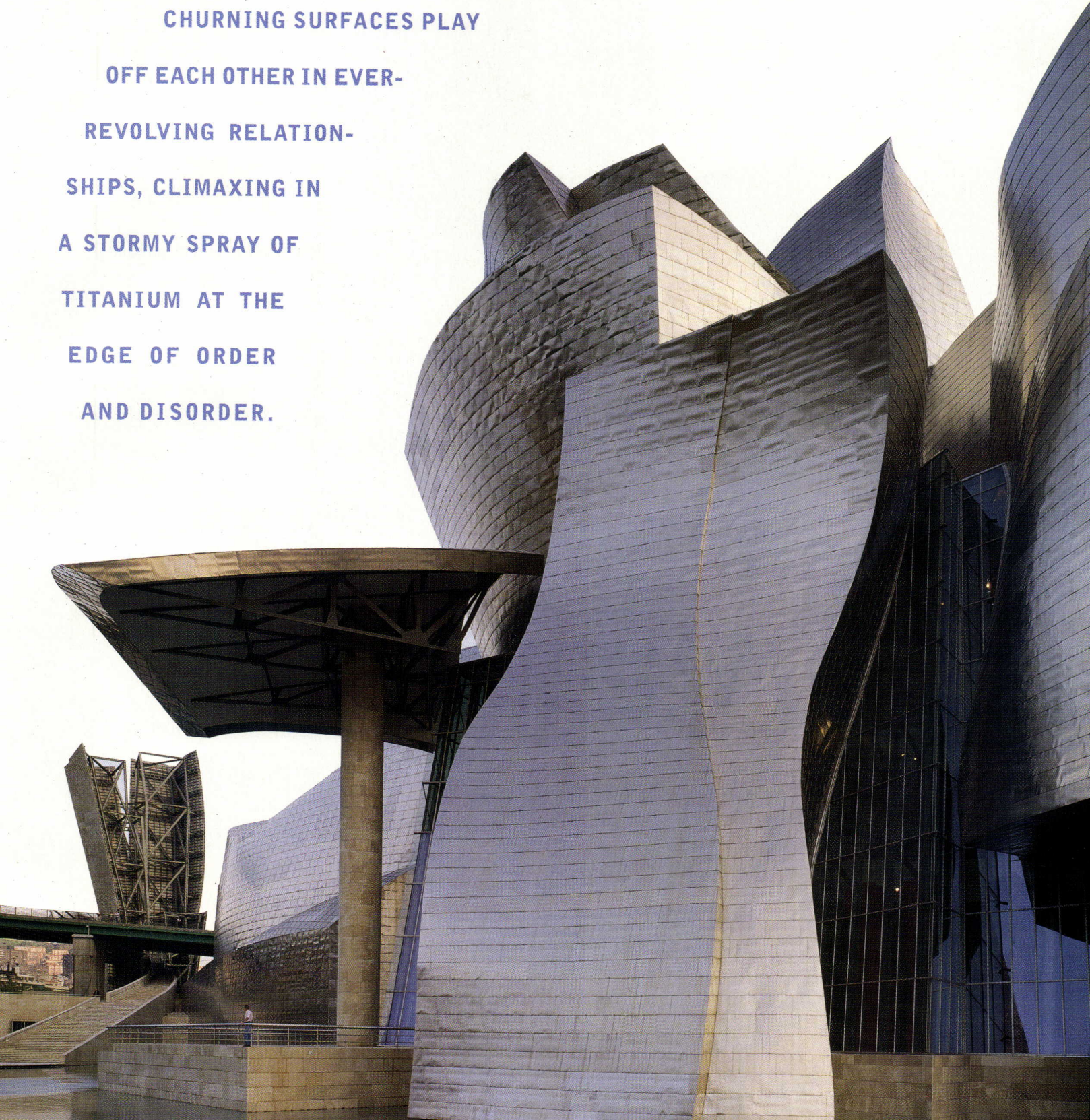
Not since Frank Lloyd Wright's Wasmuth portfolio has an architect sent such an American message across the Atlantic. In Bilbao, Gehry has pursued notions of freedom and openness rather than architectural precedent and doctrine. In a Wrightian tradition that includes Bruce Goff and Paul Rudolph, the Los Angeles architect has exported to overbred Europe what author Tom Wolfe has dubbed "hog-stomping" American vitality. Gehry tilts to wildness rather than to propriety and rules.

Gehry maintains that artists admonish him not to design Milquetoast museums: "They want their work to hang in a building that's important. They tell me to make the galleries workable, but to give the building hell."

This symphonic composition, facing the Nervión like a postcard waiting to happen, is the vision that has mesmerized photographers, but their voluntary captivity leaves other views unseen, and even repressed. There are weaker facades, including those that reveal an inner architectural

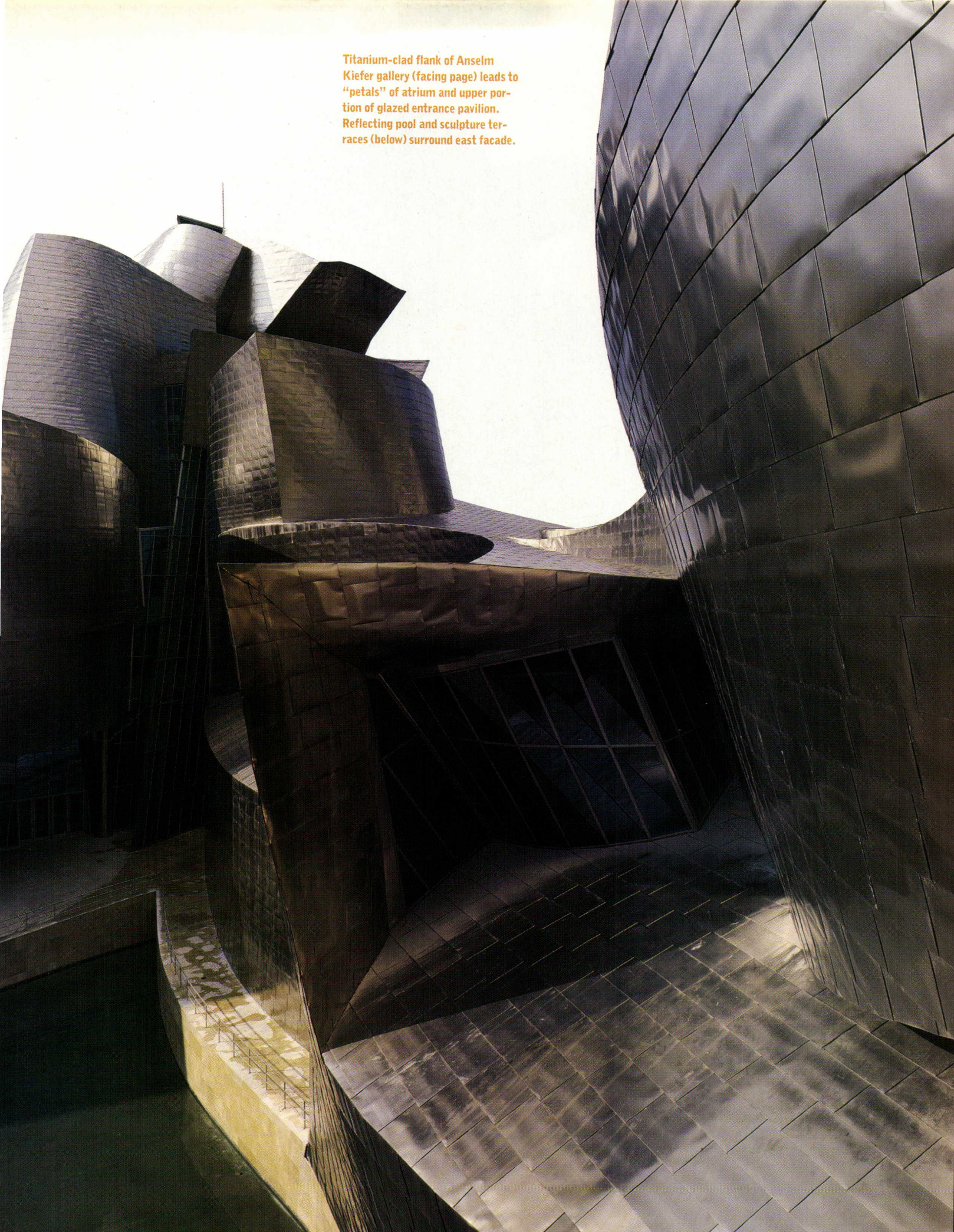
Viewing deck under canopy floats in reflecting pool adjacent to river. Titanium panels are staggered over curved surface of gallery that houses Jenny Holzer's "Nine Signs" to minimize appearance of seams. Glazed walls suspended on steel armatures fill voids between major volumes. Staircase leads to bridge.

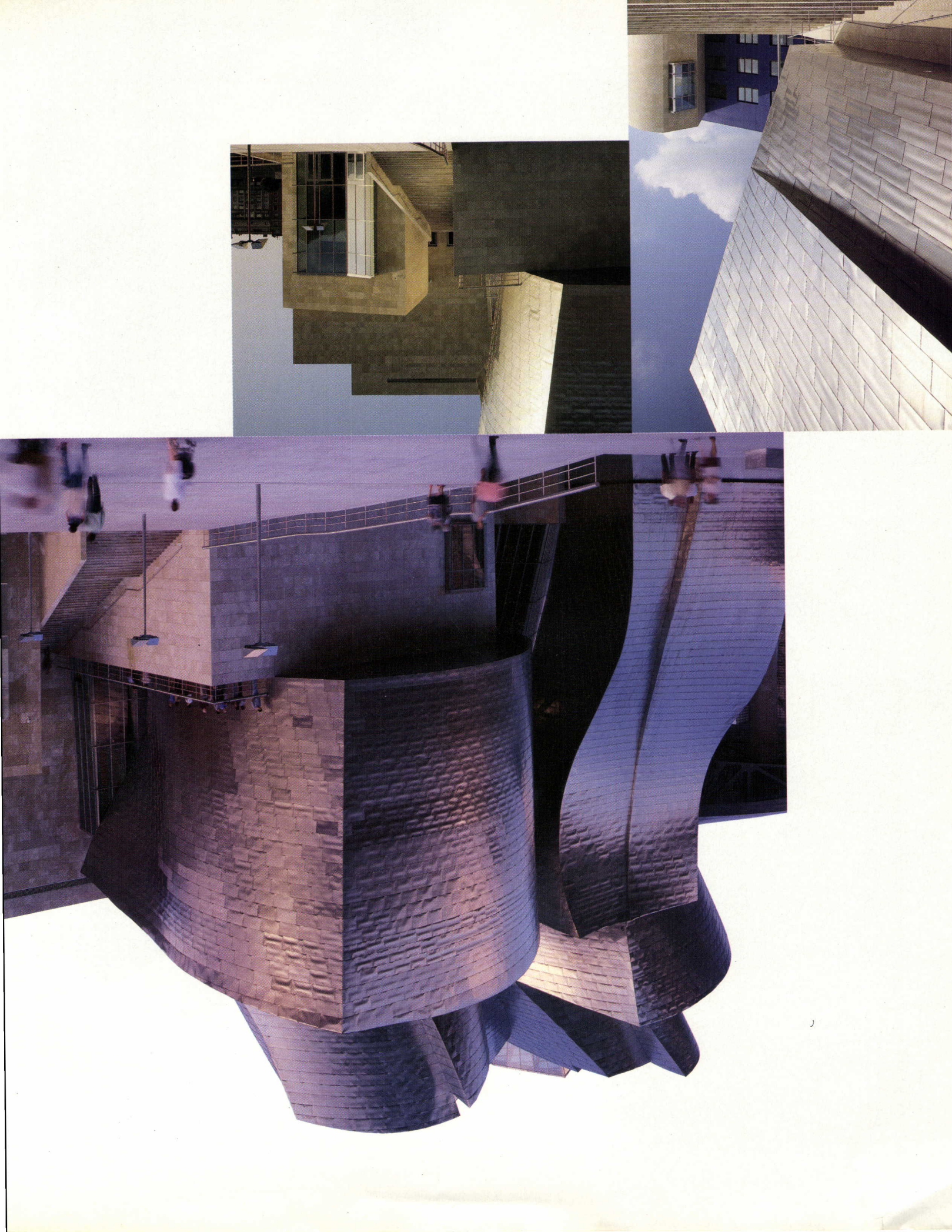
CHURNING SURFACES PLAY
OFF EACH OTHER IN EVER-
REVOLVING RELATION-
SHIPS, CLIMAXING IN
A STORMY SPRAY OF
TITANIUM AT THE
EDGE OF ORDER
AND DISORDER.





Titanium-clad flank of Anselm Kiefer gallery (facing page) leads to "petals" of atrium and upper portion of glazed entrance pavilion. Reflecting pool and sculpture terraces (below) surround east facade.





At riverside entrance (facing page, top and bottom right), staircase rises at joint between titanium curves and cubic limestone volumes. Steps from south entrance (facing page, bottom left) lead to plaza fronted by museum's blue, stucco-clad administration building.



struggle Gehry never quite resolves.

Viewed from the container yards, the west facade around the entrance displays an uncomfortable transition from the eruptive titanium curves to boxy structures that trail off into a loose assembly of buildings leading back to the city, including a blue administration building with punctured windows. Other boxy, windowless forms are nearly engulfed by the dynamic titanium shapes, and their visual relationship is uneasy, revealing a rift between interior program and exterior form.

Many of Gehry's buildings are loft structures with dramatic fronts. The facades of the Chiat/Day office building in Venice, California (1991), and the Frederick R. Weisman Museum in Minneapolis (1994), for example, do not penetrate deeply into the buildings but dazzle as surface rhetoric. Gehry sculpts buildings from the outside, and despite designs Robert Venturi might call ducks, they are largely decorated sheds.

In the Guggenheim Bilbao, when Gehry looked at the interior, it was primarily at the atrium where Director Thomas Krens wanted Gehry to match the aplomb of the atrium in Wright's Fifth Avenue museum. Gehry responded with a soaring expressionistic space—part Kurt Schwitters' *Merzbau*, part Fritz Lang's *Metropolis*—with flaring pillars, webbed fenestration, glass elevators, and trapeze catwalks, continuous forms that make you feel like you are falling down while looking up. Its banks of glass catch all available light, often projecting it like paintings onto curved walls that elasticize the shadow patterns.

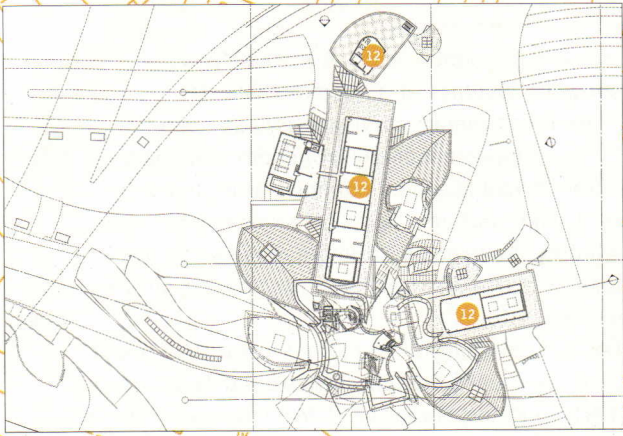
The always-moving exterior shapes, however, influence surprisingly few interiors beyond the atrium—only a half-dozen of the 19 principal galleries express the exterior shapes inside, and several of those spaces are compromised as places for viewing art. This is no small disappointment because Gehry comes so close in this commission to proving that there is an alternative to the white museum box.

Gehry's pact with the Guggenheim was to create two kinds of galleries—classical galleries for early Modernist works and more freely formed galleries for contemporary pieces and site-specific installations. He threw in a half-dozen orthogonal galleries and a handful of “found” spaces, which serve as incidental wayside chapels ringing the atrium. The boxy forms glimpsed from the west hold the six classical galleries on two floors—orthogonal spaces axially sequenced en suite.

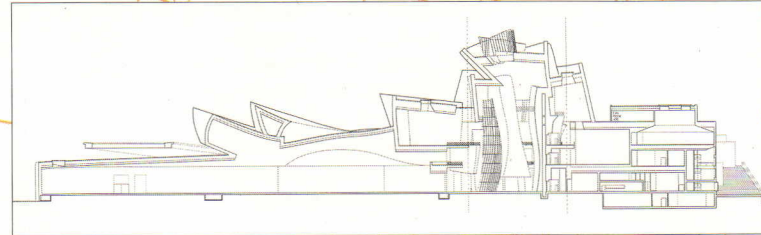
In the classical wing, Gehry cleverly subdivides each of the three third-floor galleries with tall lightwells that pour natural light from skylights down to the second floor. The walls of the lightwells effectively define narrow perimeter spaces. These doughnut galleries create an intimacy rare in this huge museum. Paintings by Wassily Kandinsky and Joan Miró read beautifully in serene spaces that glow with natural light diffused by blond floors and white walls. The galleries display a lightness of being.

But the same galleries could have been built 50 years ago. And they have nothing to do with the outside forms, except that Gehry's roiling exterior hides them. Likewise, the atrium serves as an interior facade camouflaging the conventional galleries.

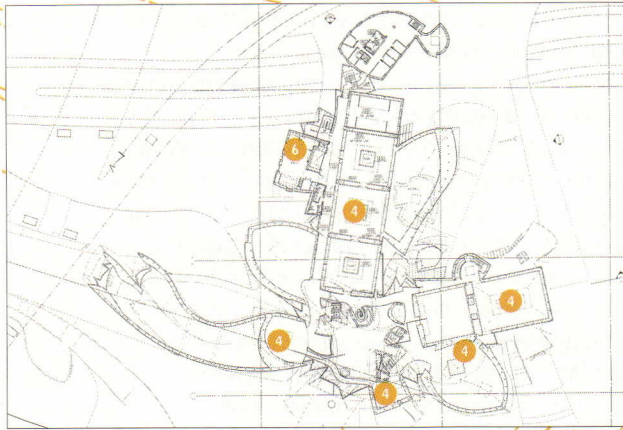
Gehry has operated by a cherished Andy Warhol principle: The artist figured that if he dyed his wig platinum, people would notice the color rather than the wig. The building is deceptive because it remains fundamentally a facade building, and the facades, inside and out, remain the dominant impression. Though the classical galleries work well, they forge no new territory, and even represent a regressive step given the fact that Wright's Guggenheim, for all its curatorial difficulties, represents a braver position.



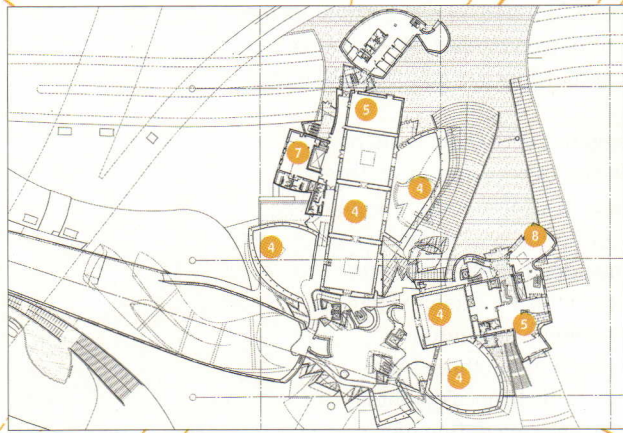
Fourth-floor plan



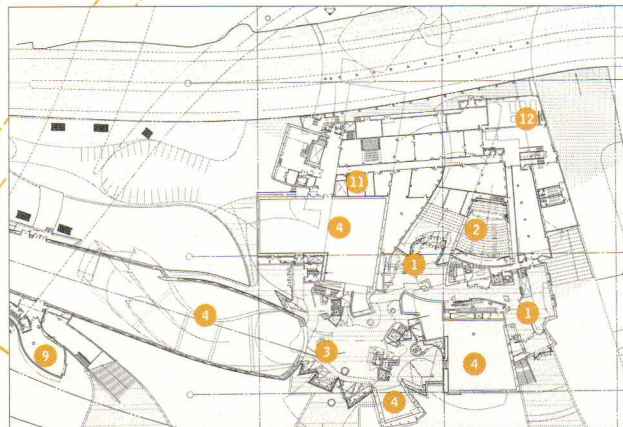
East-west section through boat gallery and atrium



Third-floor plan

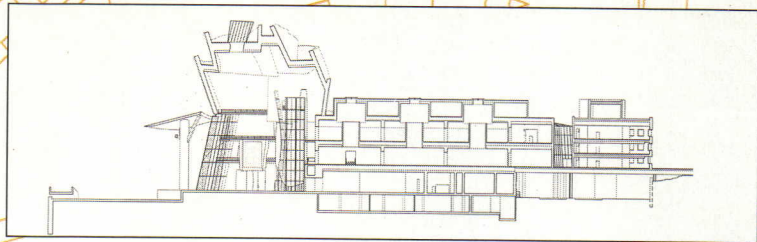


Second-floor plan

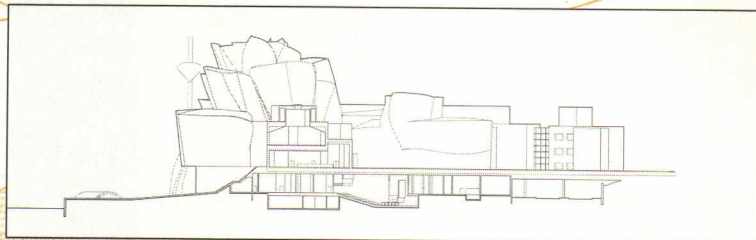


First-floor plan

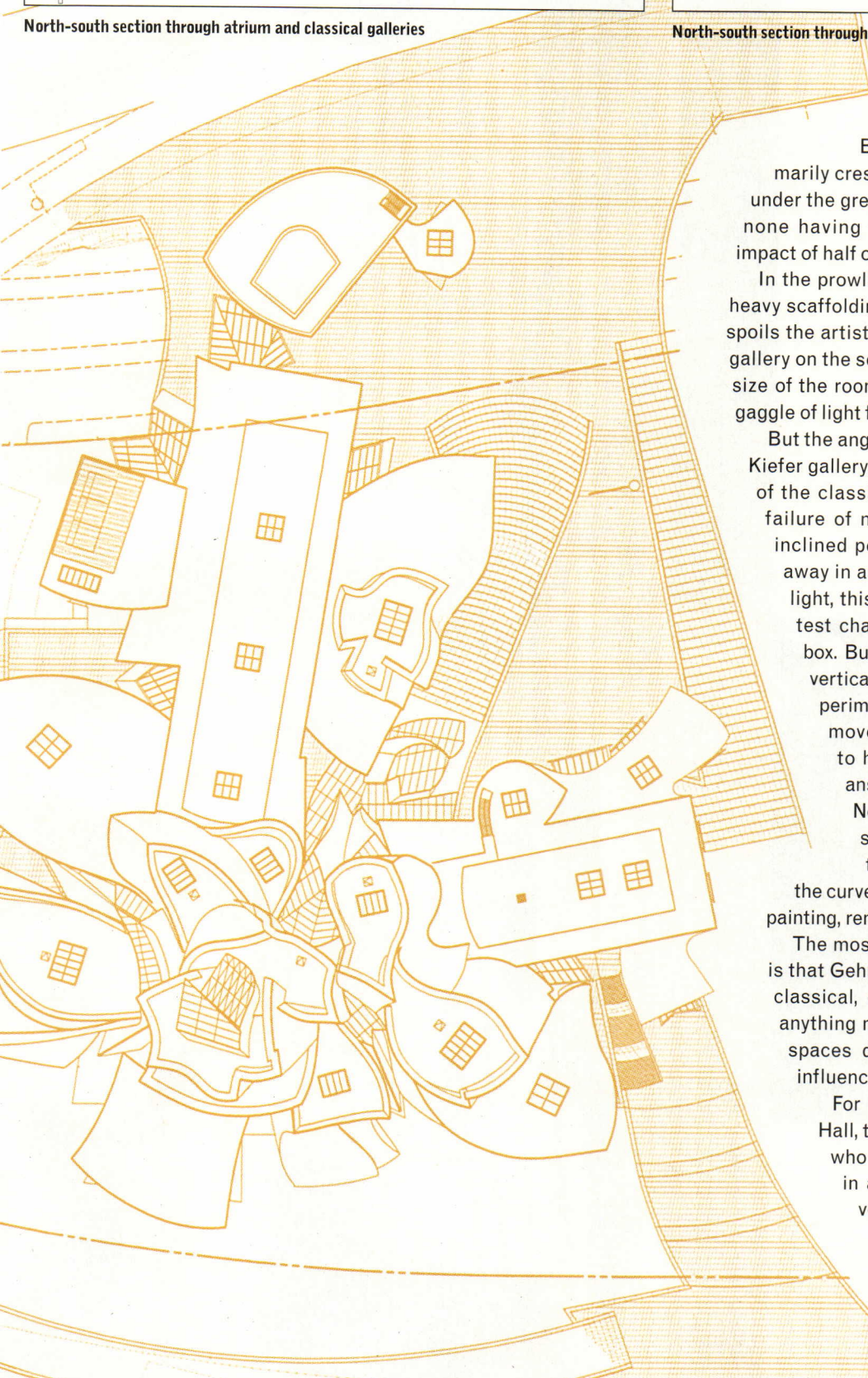
- ① lobby
- ② auditorium
- ③ atrium
- ④ gallery
- ⑤ library
- ⑥ conservation
- ⑦ staff lounge
- ⑧ bookstore
- ⑨ café
- ⑩ restaurant
- ⑪ administrative
- ⑫ mechanical



North-south section through atrium and classical galleries



North-south section through auditorium and café



Because Gehry's riverside pyrotechnics primarily crest over the atrium, there are only six galleries under the great curving light scoops. Various problems—none having to do with curvilinearity—diminish the impact of half of these curved galleries.

In the prowlike Sol LeWitt room on the second floor, heavy scaffolding for lights intrudes on the painting and spoils the artist's illusionism. In the American painting gallery on the second floor, the ceiling is too low for the size of the room and weighs on the space, bringing a gaggle of light fixtures into the line of sight.

But the anguishing disappointment is the Anselm Kiefer gallery, a boatlike shape attached to the flank of the classical galleries. The problem here is a failure of nerve (though not Gehry's). With an inclined perimeter wall that leans out, up, and away in an ascendent spatial gesture seeking light, this curved volume might have been the test chamber for an alternative to the white box. But someone straightened it up: A high vertical wall erected in front of the leaning perimeter now assassinates the yearning movement. Evidently, the worry was how to hang a painting against a curve. (The answer is one that the Guggenheim in New York already knows: Simply devise a support bracket or freestanding wall that holds the entire painting out from

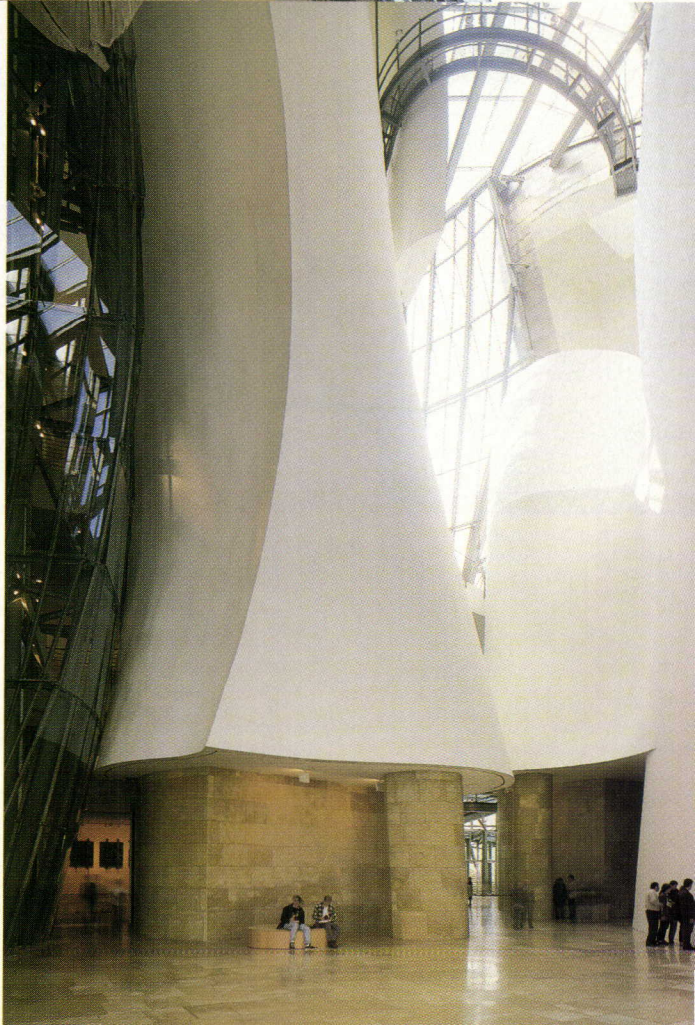
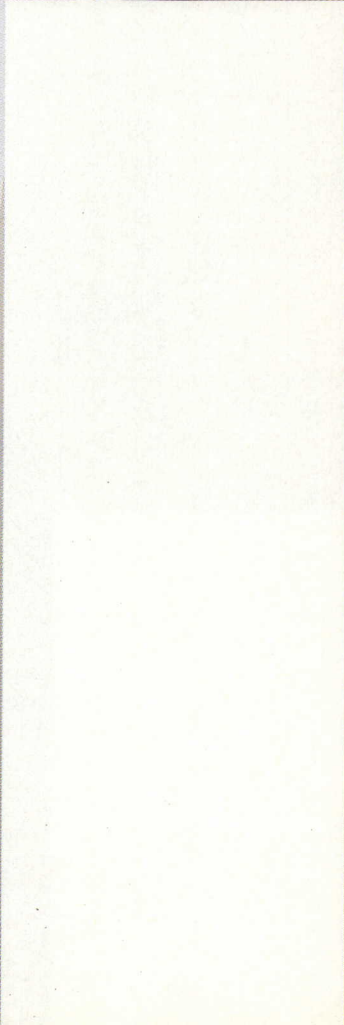
the curve so that the space dissociates wall and painting, rendering the topological problem moot.)

The most disturbing weakness of the interiors is that Gehry did not make the cohabitation of the classical, curved, and orthogonal galleries into anything more than a juxtaposition. The different spaces do not intersect, collide, or otherwise influence, transform, or acknowledge each other.

For his design of the Walt Disney Concert Hall, the architect interrogated the acoustician, who wanted a box, about what sound looks for in a box, and Gehry proceeded to erode the volume where it would not affect the sound quality. At the Guggenheim, he simply accepts the classical and orthogonal galleries as a given, and then smothers their presence with the titanium shapes. That few of the galleries register the continuously curved

In entrance lobby, Claes Oldenburg and Coosje Van Bruggen's "Soft Shuttlecock" (below and right) drapes over limestone-clad volume of "chapel" gallery. Atrium (right), extending 165 feet high, serves as central point of orientation to galleries. Exterior material palette of limestone and titanium intersects in formal crossroads of museum wings. Steel armature (facing page) supports skylights and window.

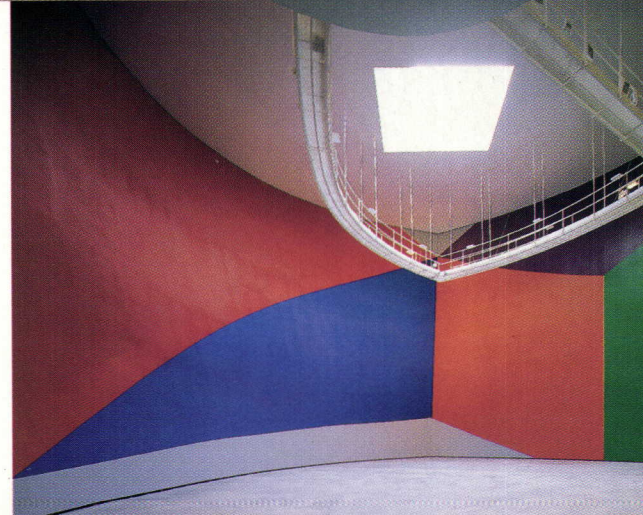






“Snake,” a site-specific steel sculpture by Richard Serra (above), occupies skylit area in first third of 5,500-square-foot, 32-foot-high “boat” gallery. Also displayed are two Donald Judd sculptures (at left) and Lawrence Weiner’s “Cat. #102 (1970) REDUCED.” Sculptural lighting

scaffolding (right) hangs in second-floor gallery with illusionistic Sol LeWitt mural. At west end of museum, curvilinear third-floor gallery housing works by Bruce Nauman (facing page) has open floor wells that transmit light to second-floor galleries from skylights above.



and flowing exterior forms inside is a failure of promise and a lapse in delirium. Gehry, who uses open forms, designs so much from the exterior that the design process amounts to a closed system that often leaves interiors underdeveloped. The building interiors really want to be what the outside promises.

The single gallery that does carry over the exterior's adventurous form and ascendent space is a prow-shaped room on the third floor, now devoted to works by Bruce Nauman, where the ceiling opens and flows up to a skylight that washes the curvaceous walls. The formal architectural complexities courteously start in the upper reaches of the gallery above the line of sight. This gallery is both adventurous and workable.

The great fear in the art community was that Gehry's galleries would overwhelm the art. But they are, in the aggregate, surprisingly neutral and polite—even the ground-floor "boat" gallery, which is longer than a football field.

But if the tour began in the galleries, visitors would have little sense of the astounding building outside. It is the joyousness of the exterior and the atrium—the buoyancy, robustness, and power—that conditions visitors to feel that entering these precincts offers a special moment and privilege: The onrush of the titanium forms prepares them to suspend disbelief and predisposes them to appreciate art as the revelation offered by this cathedral.

Gehry's museum, a sensuous structure with a radiant spirit, does put visitors in a state approaching awe, and the spatial conditioning outside the galleries carries over to artworks that are exalted by the surroundings he creates. This is not a cold, objective building that presents art in an antiseptic context, but a warm one in which Gehry's sheer effort and conspicuous creativity posit an architectural soul in structure. The design's nonrational, nonlinear forms sharpen the senses and heighten perceptions, giving visitors the confidence of their own intuitions, emotions, and senses. The building's self-liberation and expression encourages their own.

Gehry cut his design teeth on contemporary art rather than architectural history, and at Bilbao he returns to the artistic source of his creativity by proposing art at an architectural scale. Gehry did give the building hell. Artists will want to be in it.



**GUGGENHEIM MUSEUM BILBAO
BILBAO, SPAIN**

CLIENTS: Solomon R. Guggenheim Foundation, Guggenheim Bilbao Museum Foundation **ARCHITECT:** Frank O. Gehry & Associates, Santa Monica, California—Frank O. Gehry (design principal), Randy Jefferson (project principal), Vano Haritunians (project manager), Douglas Hanson (project architect), Edwin Chan (project designer), Rich Barrett, Karl Blette, Tomaso Bradshaw, Matt Fineout, Bob Hale, David Hardie, Michael Hootman, Grzegotz Kosmal, Naomi Langer, Mehran Mashayekh, Chris Mercier, Brent Miller, David Reddy, Marc Salette, Bruce Shepard, Rick Smith, Eva Sobesky, Derek Soltes, Todd Spiegel, Jeff Wauer, Kristin Woehl (project team) **EXECUTIVE ARCHITECT:** IDOM, Bilbao, Spain—José Maria Asumendi (project director), Luis Rodriguez Llopis (project manager), César Caicoya (senior architect), Gonzalo Ahumada, Javier Aja, Juncal Aldamizechevarria, Antón Amann, Javier Aróstegui, Juan José Bermejo, Armando Bilbao, Rafael Pérez Borao, Amando Castroviejo, Javier Dávila, Javier Luis De Prada, Rogelio Diez, Fernando Pérez Fraile, Jorge Garay, Juan Jesús García, Cruz Lacomá, Pedro Mendarozketa, Javier Mendieta, Ina Moliero, Imanol Múgica, David Prósper, Alvaro Rey, Miguel Rodríguez, Fernando Sánchez, José Manuel Uribarri, Victor Zorriquet **ENGINEERS:** Skidmore, Owings & Merrill (structural); Cosentini Associates (mechanical, electrical) **CONSULTANTS:** Carlos Iturriaga (owner's representative); Lam Partners (lighting); McKay, Connant, Brook; Ernesto Garcia Vadillo (acoustics); Peter George Associates (theater); Roberto Bergamo (security); Peter Muller (curtain wall); Hesselberg Keese & Associates (elevator) **GENERAL CONTRACTORS:** Abando Foundations (foundation); Ferroviaria, Lauki, Urssa (steel and concrete structure); Balzola Construction and Promotion (exteriors); Ferroviaria (interiors, building systems, site work) **COST:** \$100 million **PHOTOGRAPHER:** Christian Richters, except as noted

FAULTY

TOWERS



BY AARON BETSKY

Shell

Shell

Self

Shell

Food Market

Los Angeles finally has its city on the hill. Opening this month, the Getty Center, the 940,000-square-foot behemoth designed by Richard Meier & Partners, gives the city a recognizable cultural landmark. Unfortunately, the center's architecture is as flawed as that of L.A.'s other attempts at cultural monument-making, including the Los Angeles County Museum of Art, the Dorothy Chandler Pavilion, and the Museum of Contemporary Art. If the Getty's hilltop aerie succeeds, it will do so as a popular destination on par with Disneyland, not as a great work of architecture.

Though most architects and critics who visit the building come back severely disappointed, few will voice their criticism on record. Perhaps they saw what happened to Frank Gehry, who offered mild criticism of the design, and was publicly castigated by Getty Trust Director Harold Williams for harboring "sour grapes."

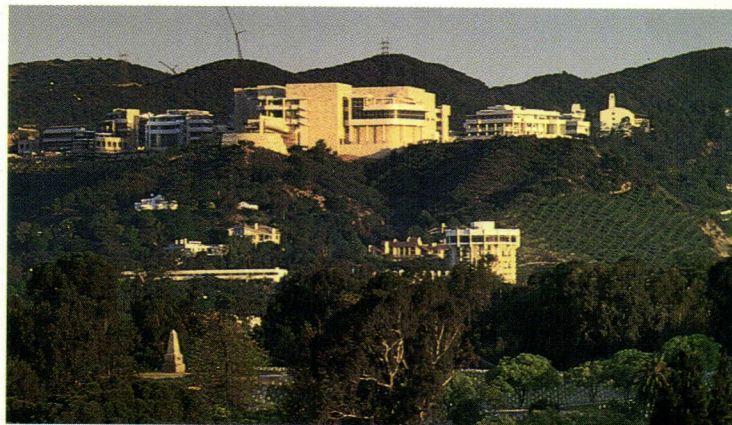
John Kaliski, former principal architect for the city's redevelopment agency, is one of the few who will admit that "it's not a very good building, and they spent a lot of money on it." But even Kaliski demurs, going on to say, "That's all water under the bridge now. It's built, and we should just be glad it's there." Kaliski points to the home the Getty gives to a growing art collection, to the scholars it attracts to the area, and to the good work the Center does in preserving artworks. Local architect and prominent art collector Elyse Grinstein agrees: "We are lucky to have the Getty here. It gives us a worldwide presence in the art world."

The problems with the Getty's architecture range from the grand and philosophical to the small and pragmatic. Some are issues that only architects may care about. For instance, Meier uses travertine in addition to his usual porcelain-enameled aluminum panels to make the building look more monumental and more rooted in its landscape.

In Meier's hand, 39 acres of Italian stone oscillate between looking like traditional masonry and an appliqué. He applied the stone in thick slabs without grout, to indicate its nature as a skin, but the gaps between the pieces are so large that one sees the metal fasteners between the panels. In some places, stone walls cantilever out over plazas. Thin supports barely hold these planes aloft, creating a top-heavy composition of horizontal and vertical pieces open to view. Where Meier did specify porcelain panels, neighbors forced him to use a buff color, rather than his usual white. They even dictated the reflectivity quotient of the materials. The result is a muted, mushy appearance that diminishes the visual crispness characteristic of Meier's forms.

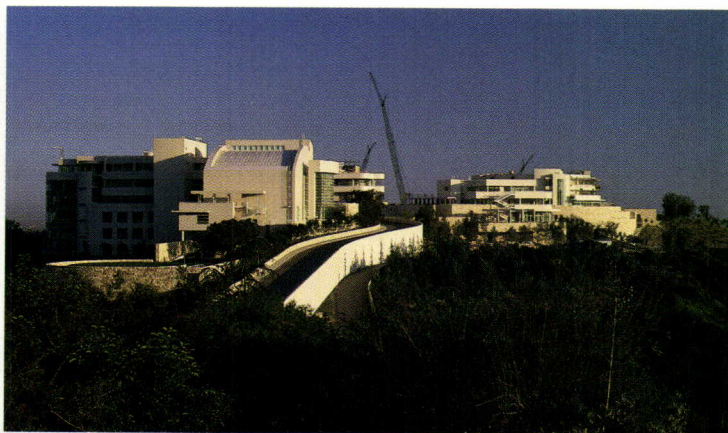
Harder to stomach is the complex's organization. Meier concedes that the design of the Center was daunting. He had to house not one function, but seven entities: the J. Paul Getty Museum; the Getty Research Institute for the History of Art and the Humanities; the Getty Conservation Institute; the Getty Information Institute; the Getty Education Institute for the Arts; the Getty Grant Program; and the J. Paul Getty Trust. "Each of these entities was distinct," he recalls, "They had to have their own identity, but also had to be part of the whole. Each has very different kinds of spaces, but they all have to work together."

Meier's solution was to design a series of separate pavilions sited on a shared plinth. The buildings are meant to have a clear definition, but, because Meier uses a "unifying" geometric language, it is difficult to distinguish each piece from another. For example, the buildings housing the Getty's education programs and the conservation institute are a collection of boxes, curves, and bays tenuously strung together by pergolas and sun shades.

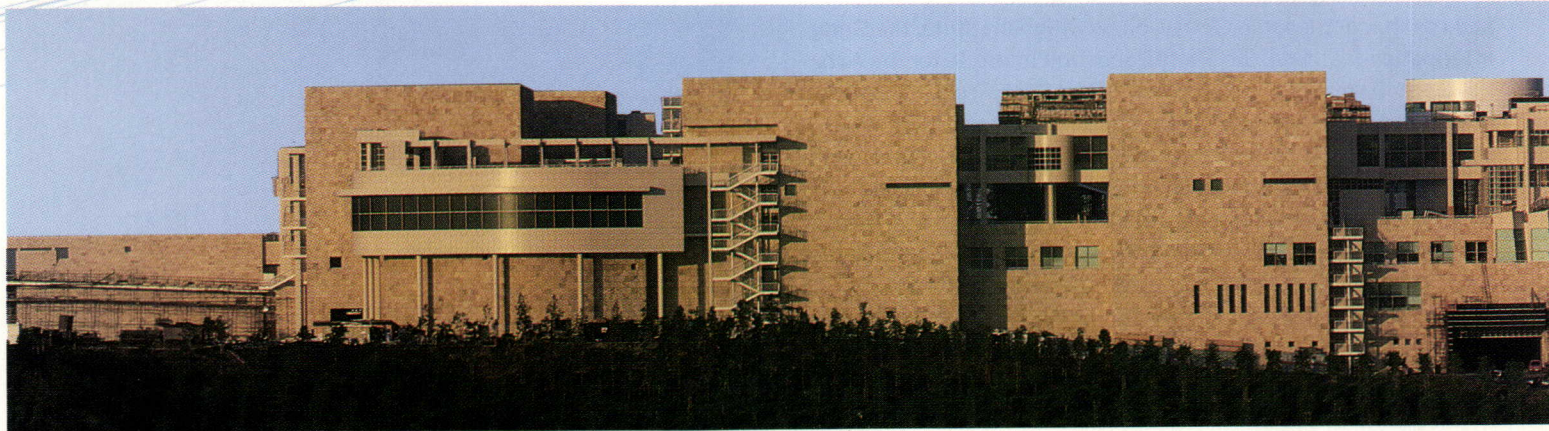


Getty Center's east facade (facing page) towers over gas station on Sepulveda Boulevard. From south (above), Getty Center stands against Santa Monica Mountains. View from north (bottom) shows tramway leading to auditorium (left) and café building (right).

RICHARD MEIER'S HILLTOP GETTY CENTER PROVIDES LOS ANGELES WITH A LANDMARK DESTINATION FOR ART, BUT FAILS TO COALESCE INTO A GREAT WORK OF ARCHITECTURE.



- 1 auditorium
- 2 Getty Information Institute,
J. Paul Getty Trust
- 3 Getty Conservation Institute,
Getty Education Institute for
the Arts, Getty Grant Program
- 4 tram station
- 5 J. Paul Getty Museum
- 6 restaurant, café, boardroom
- 7 Getty Research Institute for
the History of Art and the
Humanities
- 8 central garden



The museum presents a large rotunda, giving few clues to the kind of pavilions housing the art beyond. The Getty's remaining functions, as well as such public spaces as a restaurant and an auditorium, appear little more than pieces of an elaborate office complex.

The inspiration for this fragmented appearance may lie with either Hadrian or Le Corbusier, though Meier disavows using any historical models. The Getty's imposing and extravagant forms may even have been borrowed from Baroque palaces, as Terry Riley, director of the architecture and design department of New York's Museum of Modern Art, has claimed. Whatever the genesis, the result on the ground is a progression of similar parts, repeating geometric fragments with little hierarchy or logic. The Getty Center ignores its site and downplays the diversity of its program to create a wash of cream-colored cast-offs from old Meier projects.

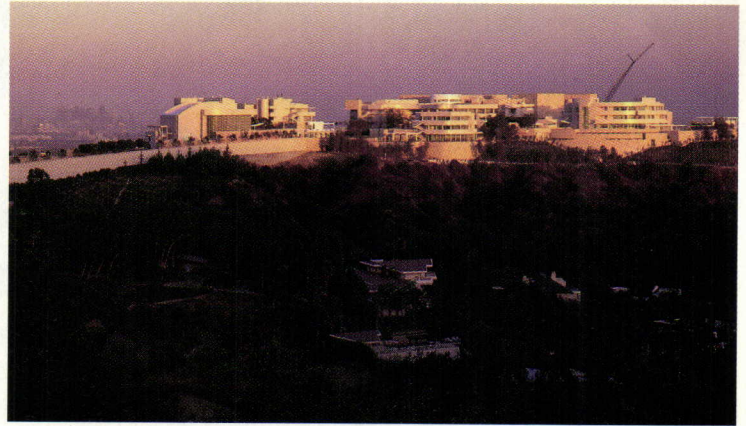
Their presence on a shared plinth makes this collection of not-quite-crystalline parts overwhelming. Violating Frank Lloyd Wright's warning about building on top of a promontory, Meier leveled the landscape. He defends this move by pointing out that the local use permit restricted the site to 110 of the property's 600 acres: "The city drew a red line around the top of the hill, and that was all we could build on." Still, one wishes that Meier had looked at structures such as Julia Morgan's Hearst Castle in San Simeon, which crowns a similar site while respecting its topography.

The payoff to the siting strategy comes in the space it opens up. "The Getty is a Postmodern building, in which the spaces between the buildings matter much more than the objects themselves," comments Kaliski. "It is all about the human scale and the activities that take place on the plazas," adds Meier. There certainly is plenty of such space. There are, in fact, too many outdoor rooms.

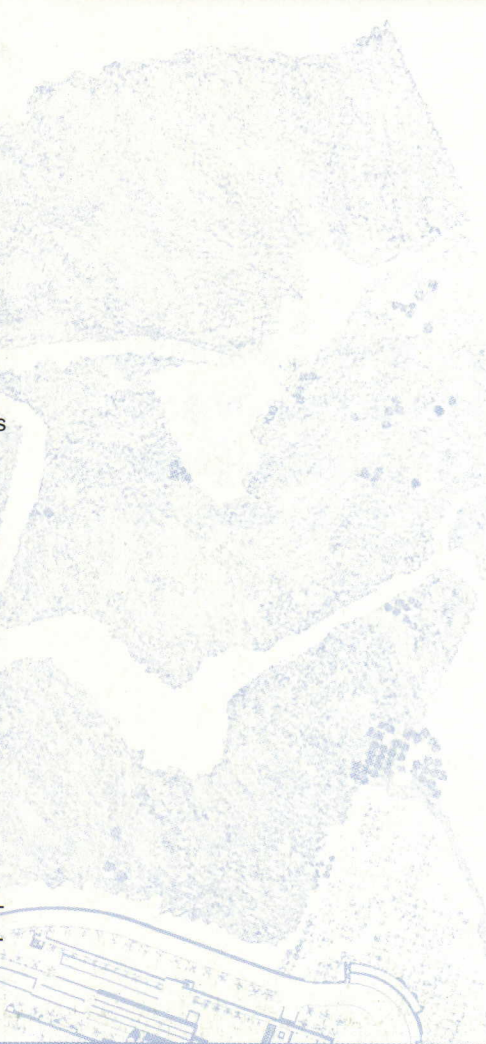
A visitor to the Center's Museum will park the car, go to a landscaped courtyard on the roof of the 600-space parking garage, take a five-minute tram ride to the hilltop, enter one plaza, take a broad flight of stairs to another one, enter into a rotunda, exit into a courtyard, enter into another lobby, take another flight of stairs, and only then come to a gallery.

There is a reason for this journey, Meier claims. Working in Southern California taught him "the importance of the relationship between inside and outside, the use of outdoor rooms." His vermiculation of the structures allows natural daylight to suffuse most interior spaces. One never loses sight of the outdoors.

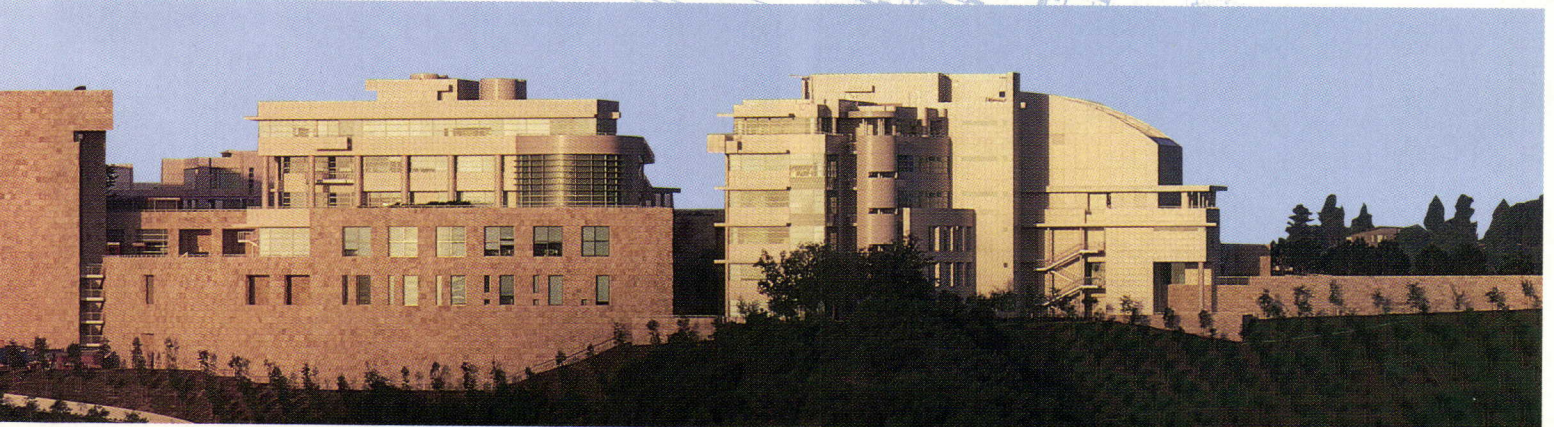
Unfortunately, the sameness of many of the complex's parts does little to differentiate the buildings, and thus define the character of each of the spaces. This problem is heightened by the succession of landscape architects and consultants who contributed



Siting separate pavilions atop flattened hilltop allows Getty's seven institutes to "have their own identity, but also be part of the whole," according to Meier.



East facade comprises (bottom, left to right) museum; conservation institute and education and grant programs; and curved auditorium behind. Site plan (these pages) shows tramway winding up from parking garage to top of ridge.





THE GETTY IGNORES ITS SITE AND DOWNPLAYS THE DIVERSITY OF ITS PROGRAM TO CREATE A WASH OF CREAM-COLORED CAST-OFFS FROM OLD MEIER PROJECTS.

Tramway (below) leads to canopied arrival station and entrance plaza in front of auditorium. Trellised walkway (below right) links information institute and trust offices to auditorium.

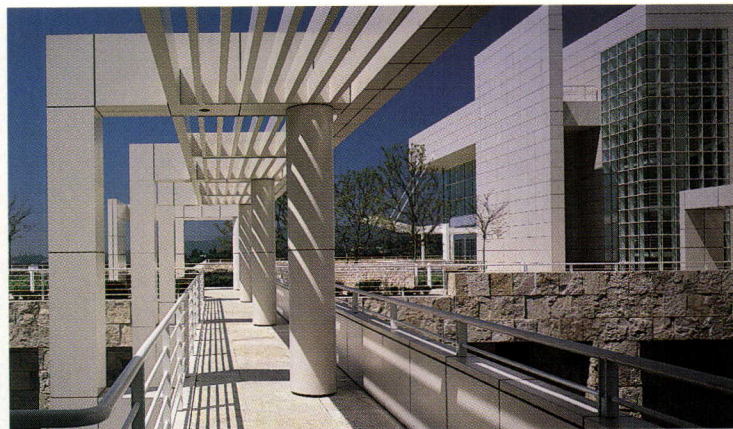


their own ideas about how to tie the Getty Center together.

The best parts of the Center are its museum galleries. The director of the museum, John Walsh, correctly points out that the height of the spaces, whose skylights hover 25 feet above parquet floors, give the strong California sun a chance to bounce around before washing the paintings and sculpture with light. The result is a bit of a miracle: The almost surreal vividness of California is transformed into something akin to the soft elegance of the European climate in which most of the art was made. This magic is further heightened by the galleries' brightly colored walls, which warm the light and refer to period gallery design. On the ground floor, New York interior designer Thierry Despont has brilliantly fused the Getty's period rooms into enfilades worthy of the Baroque palaces that originally housed these decorative arts.

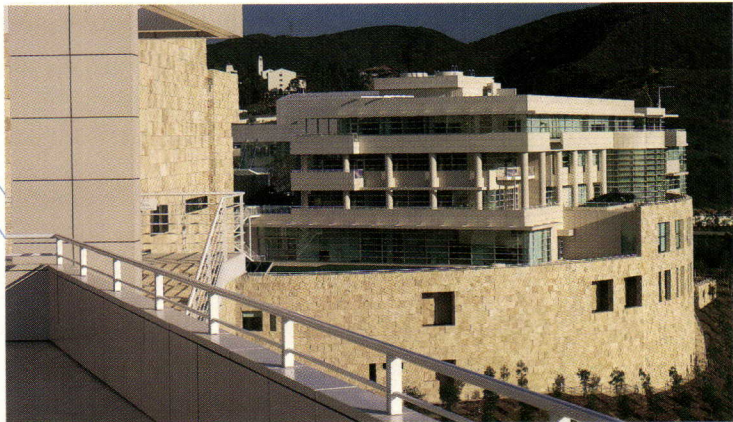
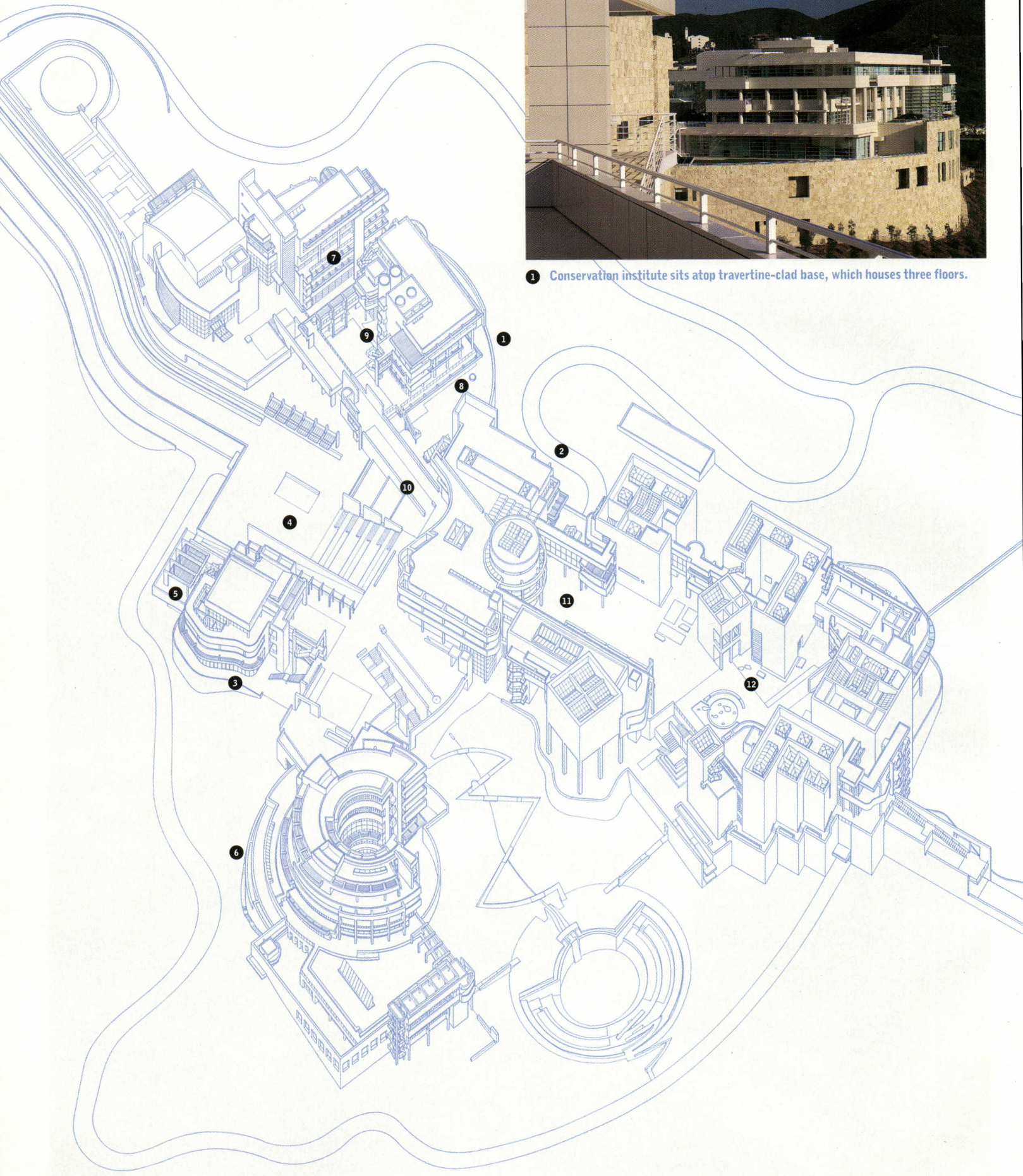
The success of the museum's wholly un-Modern spaces points up the Getty Center's essential nature—a theme park of art. The Center's president, Harold Williams, has no trouble with this analogy. He wants the public to see the place as a "destination," not unlike Universal City. The courtyards, plazas, and lobbies act as what Disney would call "pre-ride environments," where visitors are put into the proper frame of mind for the central experience. The Center's several restaurants and stores make the analogy seem even more appropriate.

The very act of building has already made the Getty into a popular attraction. "We've had 10 years of free publicity as people have watched the building go up," says Williams. Millions of commuters who use the San Diego Freeway, which passes along the foot of the Getty's hill, see this magic kingdom every day. In Los Angeles, the new Getty is in everybody's rearview mirror. Once they decide to make the trek up the hill, "we want them to feel welcome, not

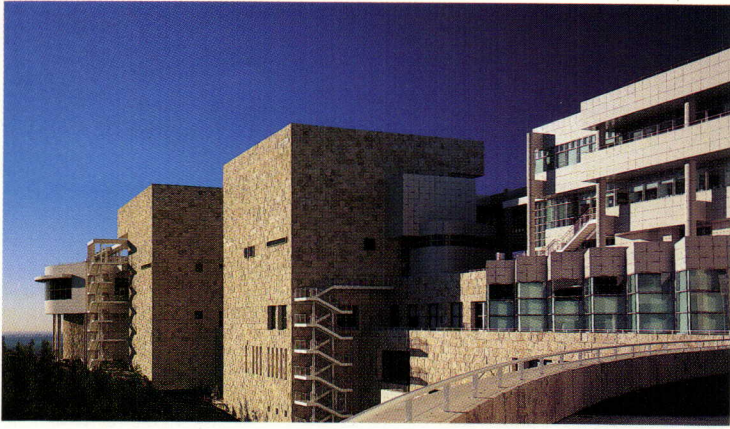


Getty's northeastern quadrant (facing page) contains auditorium, information and trust building, and conservation and education institutes. Viewed from north, hilltop acropolis (below) hovers above L.A.'s sprawling west side. Stone-paved central plaza steps up to museum's boxy gallery pavilions (center) at southern edge of site.





1 Conservation institute sits atop travertine-clad base, which houses three floors.



2 Museum's gallery buildings and angled bays (right) define eastern edge of site.



3 Restaurant and café pavilion at northwest corner of complex overlook Pacific Ocean.

intimidated by art," Williams continues. "The whole place is deliberately very non-L.A.," he claims, emphasizing that it gives people a chance to get out of their car, above the smog, and away from the confusion that marks much of the Southern California landscape. "I see the tram and all the public spaces as giving people a chance to decompress," he explains.

The fragmentation of the Getty into its many institutes, the lack of hierarchy Meier imposed on the organization of these parts, and the sheer number of nooks, crannies, and courtyards pervading the serious bulk of its buildings seem to ensure this non-threatening experience. Meier has made forms that do not look like palaces or villas, but are instead pieces of a Modernist puzzle formed of aluminum and stone grids, forcing the viewer to put the whole experience together while moving through the giant complex.

The problem is that the whole does not form the repository of shared beliefs, the singular message through monumentality that we expect from our cultural institutions. Instead, the Getty offers a variety of experiences organized on a flat plane. There is no building that is noticeably larger than another, no strong central space beyond the plazas that step up and down the center of the plinth, and no references to recognizable cultural buildings.

The Getty is essentially self-referential, a problem with any Modernist building. Meier's refusal to acknowledge models or to cite precedent keeps turning one's interpretation of the building back to the collection of fragments that make up its collage. The theme of the Getty thus is not culture as a common good, but art as an obtuse and elite occupation. As a castle on a hill, the Getty

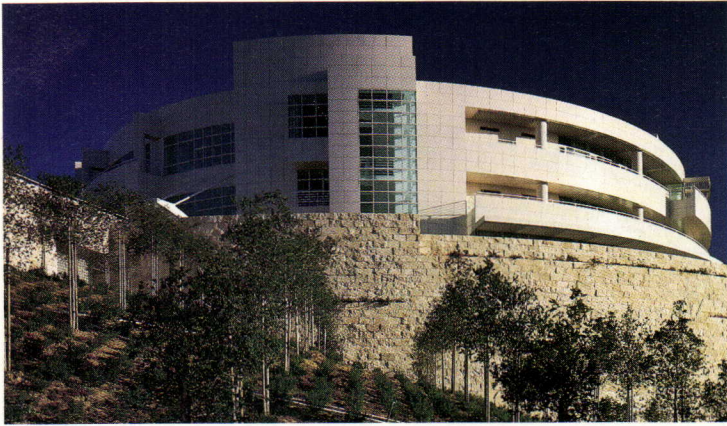
THE GETTY'S COURTYARDS, PLAZAS, AND LOBBIES ACT AS WHAT DISNEY WOULD CALL "PRE-RIDE ENVIRONMENTS," WHERE VISITORS ARE PUT INTO THE PROPER FRAME OF MIND FOR THE CENTRAL EXPERIENCE.

4 Trellis adjoining entrance plaza flanks metal panel-clad café.



5 Terraces wrapping western face of café are oriented to ocean views.





6 Curved facade of research institute defines western boundary of complex.



7 Overhangs shade south elevation of information institute and trust offices.

THE GETTY IS NOW FIXED IN STONE. THE TRUST CANNOT ADD A SINGLE SQUARE FOOT OF SPACE TO THE SITE. PRESIDENT HAROLD WILLIAMS SEES THIS OBSTACLE AS AN OPPORTUNITY TO BUILD SMALL CULTURAL CENTERS IN OTHER COMMUNITIES.

makes that art into an unassailable and monolithic belief.

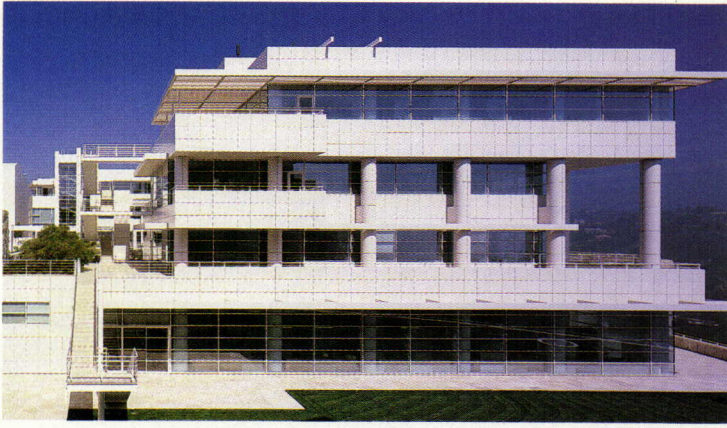
Its Modern language moreover conflates this belief with a corporate sensibility. The Getty already had such an aura: Its sheer size and its board of directors, chosen from among prominent businesspeople, gave the impression of applying the rules of the boardroom to the gallery. Modernism, contends critic Charles Jencks in speaking of the Getty, "is a profoundly conservative style, loved by conservative types in business and elsewhere. The Getty sensed that, just as the Vatican did when they hired Meier to design their Church of the Year 2000. Meier knows it too. He makes good office buildings and good villas for the rich. That's what he tried to do here."

Yet even if one were to accept the Getty's premise and enjoy its success in making a corporate-style theme park for art, the architecture still is not up to the task. One looks in vain for layered compositions, careful juxtapositions of structure, circulation, and skin, abstractions of Classical orders, and sensuous plays of light. These elements are what make some of Richard Meier's buildings, such as the High Museum of Art, the Hartford Seminary, and the New Harmony Athenaeum, among the best structures in the country.

The Getty is a confused image of a campus, one we visit to see art. The art is housed in a manner that makes the paintings, sculptures, furniture, and manuscripts stand out in all of their glory. If that was all the Getty did, it would make a nice little pilgrimage spot akin to the Griffith Park Observatory a few miles to the east along the same ridge of hills. But this 940,000-square-foot complex is a huge edifice. Given such an institution, such a site, and such a budget (the whole complex officially cost \$1 billion, but unofficial

10 Canopy marks museum entrance leading to lobby rotunda.





8 Conservation and grant program offices are housed in 80,000-square-foot block.



9 Cylindrical stair towers mark conservation building, seen from central courtyard.

estimates almost double that amount), it should have been a great building. But it is not.

One final irony is that the Getty Center is now fixed in stone. Because of an agreement reached with its neighbors in the surrounding communities of Brentwood and Bel Air, the Trust cannot add a single square foot of usable space to the site. To Williams, this is an opportunity: "Now that this is done, we can move on. We can build small cultural centers around Southern California, in different neighborhoods and communities."

The Getty's incoming president, Barry Munitz, who will take over in February 1998, shares the desire to "move off the hill," but wants to do so by "partnering with existing museums" and perhaps even by introducing "modern-day bookmobiles" that would bring the Getty's riches to the masses.

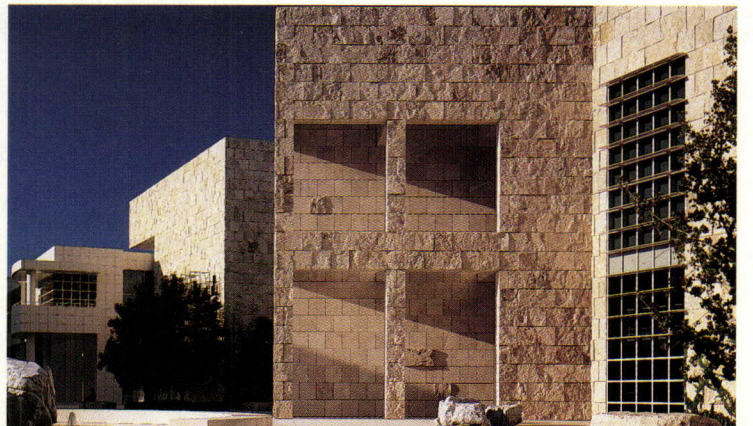
To Munitz, the future only begins with Meier's architecture, which, he says, will look better "once it's a bit worn, a little beaten up, and the landscape has grown in." He already foresees the need to change the complex, to make it "more flexible," and emphasizes that "there is a juxtaposition between the long-term stability expressed by the building and the fluid dynamics of the programs."

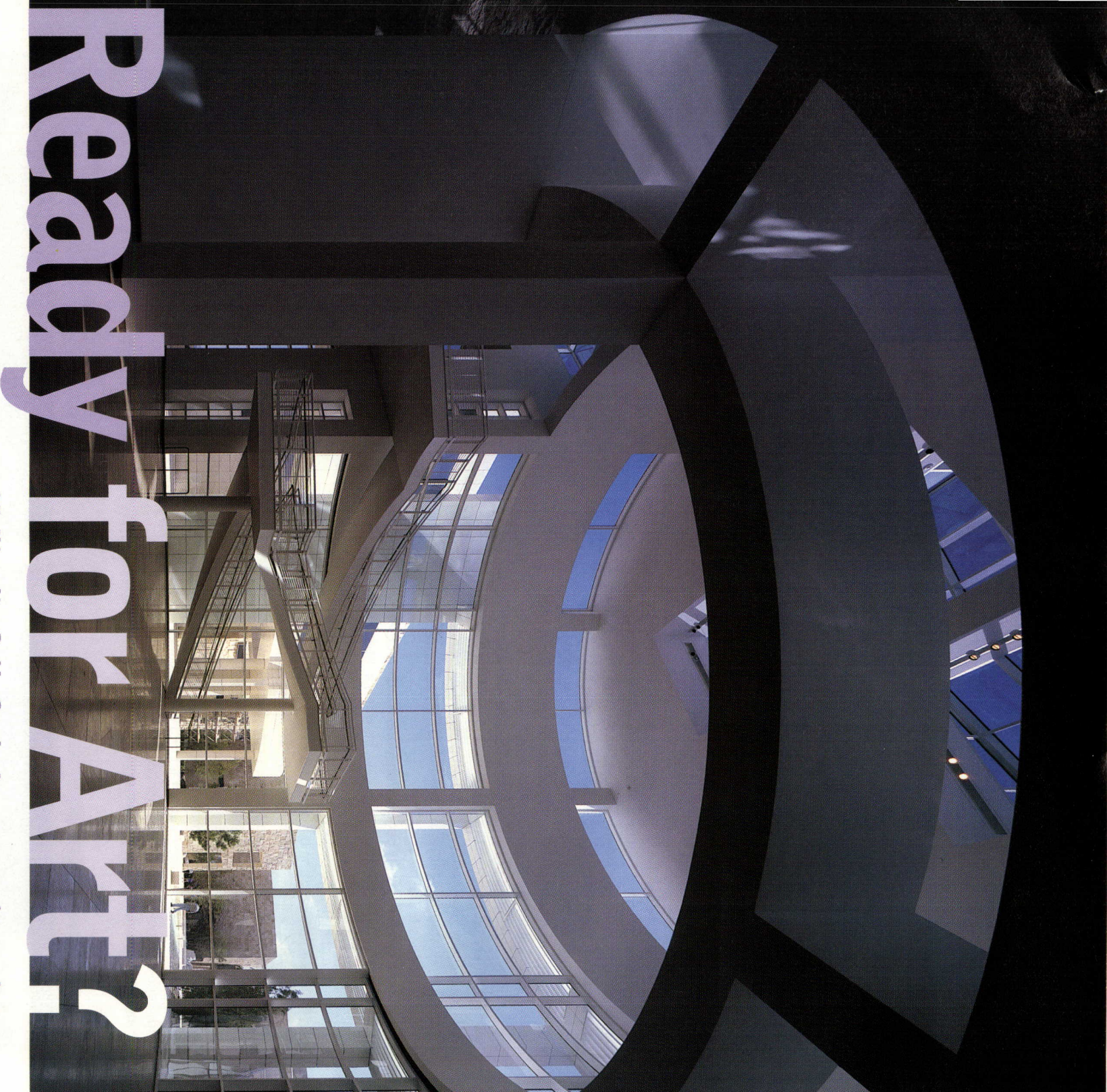
Thus, in a few years, the architecture of the Getty may become an anonymous backdrop to the activities of the fabulously wealthy and energetic Getty Trust. Meier's sprawling complex also offers a larger lesson: The discrepancy between the Getty as an institution and its architecture points to the sad fact that even the most monumental and expensive buildings cannot express the complexity of our most progressive cultural endeavors.

11 Rotunda (center) and temporary exhibition pavilion (left) project into courtyard.



12 Travertine-clad exhibition pavilions flanking courtyard are separated by walkways.





Ready for Art?

Visiting the Getty Center's museum demands a journey worthy of Homer. But its sumptuous galleries, laden with Western treasures, are worth the trip.

By Dave Hickey

Before you set out for the new Getty Center, prepare yourself by trying to imagine a Fabergé boulder. Or, if you are more literal-minded, recall Peter Thumb's 18th-century pilgrimage church at Birnau, Germany—all that stern propriety on the outside, all the Baroque Feichtmayer profusion within. Then, should you lose heart in the midst of your pilgrimage, remind yourself that, once achieved, the galleries at the Getty Center house a treasure trove of European art—a collection of collections, greatly expanded from J. Paul Getty's original bequest, yet still retaining the eccentric shape of the old man's particular affections: French furniture, illuminated manuscripts, and Classical antiquities. Remind yourself, as well, that the scope of the Getty holdings extends from the mists of Cycladic prehistory all the way up through James Ensor and Paul Cézanne, with a selection of 20th-century photographs thrown in for good measure, and that the vast preponderance of these objects will be publicly available to you at the new Getty Center.

Even a selection from the antiquities collection, which will ultimately reside in the Getty's Malibu villa (*Architecture*, April 1997, pages 84-91) will be on display at the Getty Center in an inaugural exhibition whose title, *Beyond Beauty: Antiquities as Evidence*, betrays the darker side of the relationship between the Getty's collection and the scholars who hold it in trust. The objects themselves will be no less lovely for this title, but in the realm of sullen denial and passive aggression, this invitation to transcend the objects and move "beyond beauty" into the realm of academic adjudication, speaks volumes that we don't want to read—especially since it accepts the risible possibility that someone might run up to the Getty to see some Greek "evidence," which is about as likely as someone buying *Playboy* for the articles.

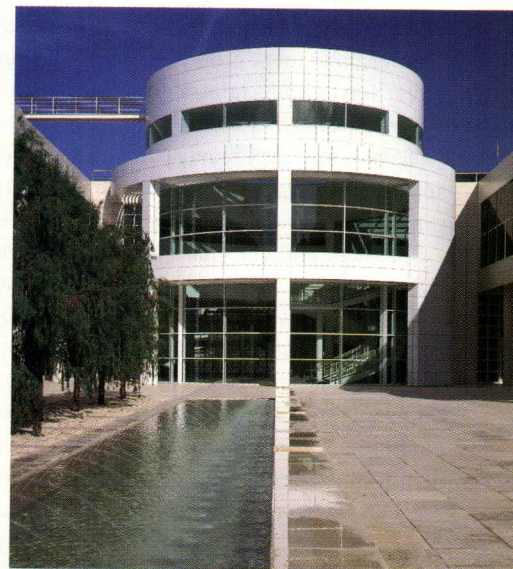
Once inside the buildings, however, we can look at pictures, and the exhibition galleries, designed by Richard Meier in association with New York

interior designer Thierry Despont and Getty Museum Director John Walsh, are places you want to be. Cool, dim, and elegant without being prissy, the spaces are thoughtfully arranged and artfully deployed in a necklace of two-story pavilions around a central courtyard at the farthest reaches of the Getty campus, on the edge of a cliff, on the top of a mountain, above the San Diego Freeway, in the midst of Los Angeles, but as far away from the city as possible.

The European painting galleries are arranged in chronological sequence, from the 13th through the 19th centuries, on the second floors of these pavilions. The paintings are given plenty of space in rooms of varying sizes and shapes, in scale with their historical periods. The walls are dark and unobtrusive, covered with silken and woolen fabrics or stained plaster. Each room has a pyramidal ceiling with a central aperture through which the walls are well and appropriately illuminated by baffled and diffused sunlight. The pavilions that house the galleries are connected by open and glazed walkways, so a stroll through this particular history of European painting is punctuated by spectacular, panoramic views of the Los Angeles basin from courtyards and gardens within.

The first-floor galleries house the drawing and manuscript collections; the sculpture collection, which has been much expanded with small- and medium-sized works from the 17th and 18th centuries; and the true pearl in the gigantic, macho oyster that the Getty has become: old John Paul's drop-dead, world-class collection of European furniture and decorative arts. Once you find these galleries, you are all right.

The 17th- and 18th-century French rooms alone are worth the trip from anywhere—even from France—even if you quail at the thought of fancy furniture. Because, far from the costume-drama furniture store displays we have come to expect, Despont's re-creations and reinstallations of these



Glass-enclosed, 75-foot-diameter rotunda (facing page) creates quiet preamble to museum galleries. South end of rotunda (above) projects into travertine-paved courtyard edged by axial pool.

period rooms are works of real historical imagination, alive with period taste, at once familiar and dreamlike, yet exquisitely distanced from us and from one another. Moving through these spaces, you sense the foreign languages of vision and proxemics, the exotic logics of scale, arrangement, and proportion that confirm everything you know from the music and literature of the period, and from the actual antique rooms themselves, although those rooms, these days, are not nearly so handsomely furnished.

As a consequence, for once, you can actually see this furniture in its own atmosphere, without thinking of Jackie O.'s living room. You can sense the ideology of its formal eccentricities and feel what they must have meant, especially in the 17th-century rooms, heavy and ominous with satin and steel. Here you feel the tough, alien atmosphere of that cruel century and its remove from the present. And this sense of the felt past is what museums are supposed to give us—and the Getty does, with unflinching generosity. So why am I still annoyed at the price I paid for this free experience? Why do I still rankle at the arduous quest I was asked to undergo to achieve these salutary moments?

All I had to do was call ahead to reserve a parking place at the museum, drive to the airport, fly across the Mojave from Las Vegas to Burbank, rent a car, fight the traffic up the Ventura Freeway, cheat death on the interchange of the 405, make my way over the pass to the Getty exit, present myself at the parking garage, drive 12 floors down into the bowels of the earth (thinking earthquake all the way), park the rental car, take an elevator back up to ground level, board a tram, rumble slowly up the side of a mountain planted with a grid (a grid!) of live oaks, exit the tram onto a vast, blazing stone plaza (where one rather expects to see Aztec warriors

engaged in ritual sacrifice), and make my way across all that light and space (of which Southern California has rather a surfeit), only to find myself on a campus.

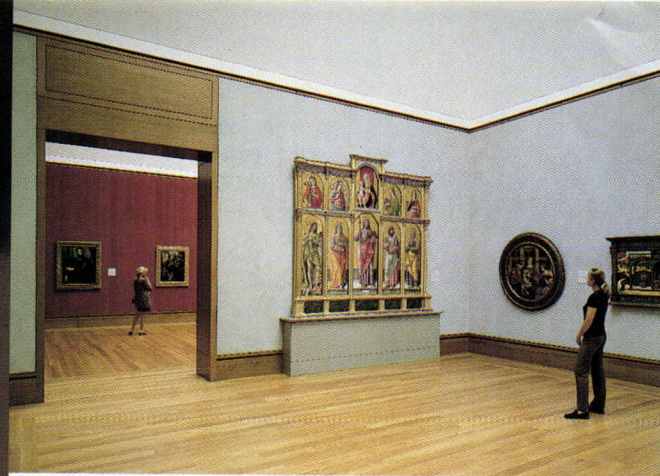
You get the scenario: One journeys across the desert and over the mountains, undergoes the ritual of burial and rebirth, then ascends the precipice to the site of initiation and re-education—something like *Morte d'Arthur* meets *Pilgrim's Progress* meets *Dune*—or like living a video game. Having arrived, however, one must proceed onward, through a disorienting maze of modular, travertine edifices adorned by shrubs but bereft of signage, past miles of white, six-bar rails that signify 1980s architecture the way car chases signify 1980s movies, until finally you arrive at the museum's atrium (more light and space). There you are greeted by a smiling, unruffled, well-dressed somebody who makes a wide, inclusive gesture and says, "Isn't it beautiful?"

Stunned and disoriented, you don't quite understand. Then, you do. You look around, and indeed it is beautiful. Recognizing this, you are ready for art—if somehow you can recover your self-esteem and feel worthy of it. Because it's not just the trouble it takes to get there. Life is a lot of trouble in the best of times. It's knowing that the trouble has been designed—knowing that someone thought it was a good idea for you to undergo this stately ritual of approach and initiation so maybe you would appreciate what the Getty is giving you. But this is not a good idea at all. It only means that everything you see and feel in those lovely French rooms—all that effortless grace, inspired craft, and profligate generosity—is totally repudiated, virtually canceled out, by everything that encloses and surrounds it—by everything that precedes your experience of it. In truth, the permissive tone and temper of Las Vegas's McCarran International Airport, whence I departed, has more in common with the Getty Center than anything you encounter between them.

So I have been trying to imagine the sort of person who would be untrou-



TOM BONNER

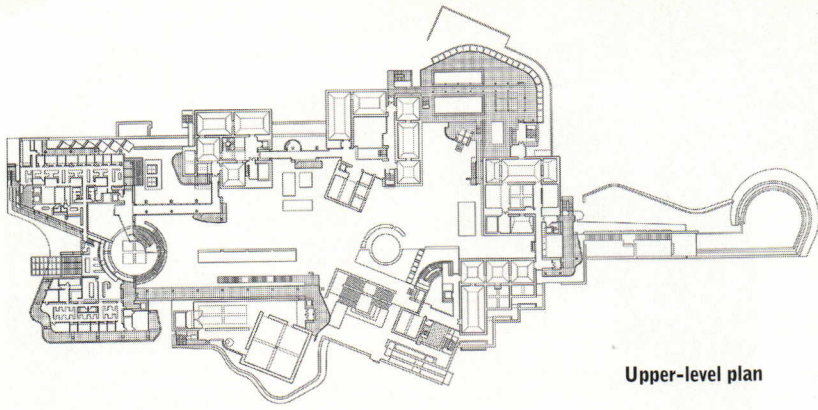


The exhibition galleries are places you want to be, thoughtfully arranged and artfully displayed, but as far away from the city as possible.

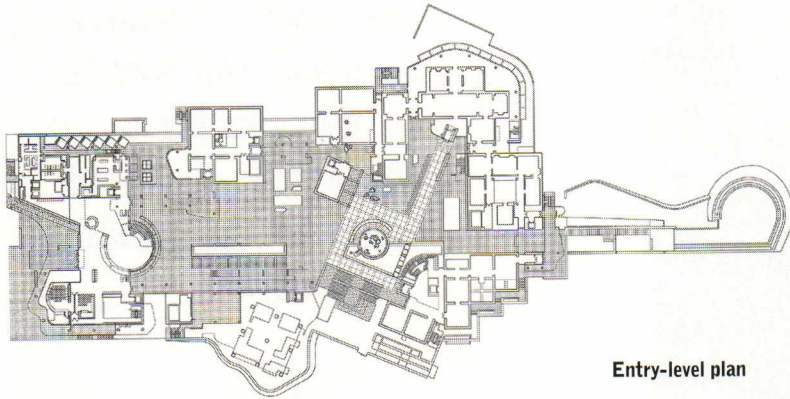
Meier provided contemplative areas (left) with city views between gallery pavilions. Rough-hewn travertine wraps doorway leading to French and Flemish painting gallery on second floor of museum's east pavilion (above). Oak-paneled doorways conceal automated climate and lighting controls. Light sensors control daylight levels and apertures of aluminum louvers mounted above skylights. Aluminum and wooden picture moldings conceal air-supply registers; return air is fed through grilles concealed by wooden baseboards (right and top right).

TOM BONNER





Upper-level plan



Entry-level plan



THE GETTY CENTER

LOS ANGELES, CALIFORNIA

CLIENT: The J. Paul Getty Trust **ARCHITECT:** Richard Meier & Partners, Los Angeles and New York City—Richard Meier (principal); Donald E. Barker, Michael Palladino (partners-in-charge); John H. Baker, James Crawford, John Eisler, Tom Graul, Michael Gruber, Richard Kent Irving, Christine Kilian, James Matson, James Mawson, Milena Murdoch, A. Vic Schnider, Timothy Shea, Richard Stoner, Aram Tatikian, Laszlo Vito, J.F. Warren **LANDSCAPE ARCHITECTS:** The Olin Partnership; Fong & Associates; Emmet L. Wemple & Associates; The Office of Dan Kiley **ENGINEERS:** Robert Englekirk (structural); Altieri Sebor Wieber (mechanical, electrical); B&E Engineers; RBA Partners (civil); Pacific Soils Engineering (soil) **CONSULTANTS:** Karsten/Hutman Margolf (project management); Fisher Marantz Renfro Stone (lighting); Thierry W. Despout (gallery interiors); Woodward-Clyde Consultants (geotechnics) **GENERAL CONTRACTOR:** Dinwiddie Construction Company **COST:** \$1 billion **PHOTOGRAPHER:** Scott Frances/Esto, except as noted



bled by all of this—a person so refined, so remote, so morally disengaged from the tangible world, that they could look at Pontormo's beautiful portrait of Cosimo I De' Medici (c. 1537) and think, "Oh, I know! Let's put it in a puritanical stone box on top of a mountain! That would be great!"—who could somehow embrace with equal enthusiasm Meier's Getty buildings and the collection they hold in custody. This reaction would require a very special person, widely experienced and deeply forgiving, a sensibility at once regionless, genderless, and faithless—although probably of European descent.

There is no such person, of course, nor do Pontormo or Meier bear any blame for their unhappy union, since Pontormo is dead, and the Getty, when they hired Meier, certainly knew what they were getting and doubtless got what they wanted. Only an institution, in its collective blindness, could think like this, could think that Pontormo and Meier, being similarly expensive and widely renowned, might be happily conjoined. Only an institution could decide that the pleasures of this hedonistic millionaire's self-indulgent collection, to be appreciated by us common folk, should be aspired to, ascended to, and attended to in an unctuous, corporate educational setting. (The people who work in this setting call it "Getty Pharmaceuticals" or, more commonly, "Cal State Paradise.")

The "why" is a mystery, of course, but for some reason, rather than taking credit for its very real generosity as a purveyor of exquisite pleasure and spectacle to the public, the Getty seems dedicated to reconstituting itself as an icon of bluestocking political correctness. So, perhaps the Getty is not so much possessive of its collection as embarrassed by its permissive, iconophile splendor. Perhaps this explains the decision to hide it like a pea in a shell game in a landscape of beige boxes, amidst a clerisy of do-gooding institutes. Or, perhaps, lacking a multicultural option, they decided to go for ecumenical.

Here, after all, was this glamorous collection of objects, the very embodiment of Gallic and Mediterranean exuberance, felicitously ensconced in a tawdry little villa in a tropical metropolis on the edge of the Pacific Ocean. What better thing to do than to break up a happy marriage of catholicity and Catholicism by sequestering all this incarnate pleasure on an isolated hilltop in a colorless, voiceless, conceptual evocation of puritanical, Northern European corporate repression, whose esthetic provenance postdates every object in the collection (with the exception of some El Lissitzky photographs).

Or maybe the Getty didn't think at all. Maybe it just got lucky. In any case, the atmosphere of high-dollar conceptual Protestantism is so pervasive that even the rough, split travertine that faces the buildings reads less as an expressive gesture than as a puritanical echo of travertine's ability to take a surface. All of which is simply to say that Richard Meier, far from failing in his endeavor, succeeded against all odds in building a complex of buildings that achieve what they aspired to—exactly what was ordered—sublime adequacy. The Getty wanted a campus for all its new institutes, and a campus they got—at the price of a palace.

Dave Hickey is an associate professor at the University of Nevada Las Vegas and currently holds the Cullinan Chair of Architecture at Rice University in Houston. He is the author of Air Guitar: Essays on Art and Democracy, published in August by Art Issues Press.



TOM BONNER

Motorized louvers mounted inside west-facing skylights control direct light in tinted plaster- and travertine-finished sculpture gallery (top). Ceramics gallery at northeast corner of museum (above) is illuminated by artificial lights and daylight admitted through narrow clerestory. Designer Thierry Despont reassembled period Régence room (facing page) from original and reproduction wall panels and flooring.

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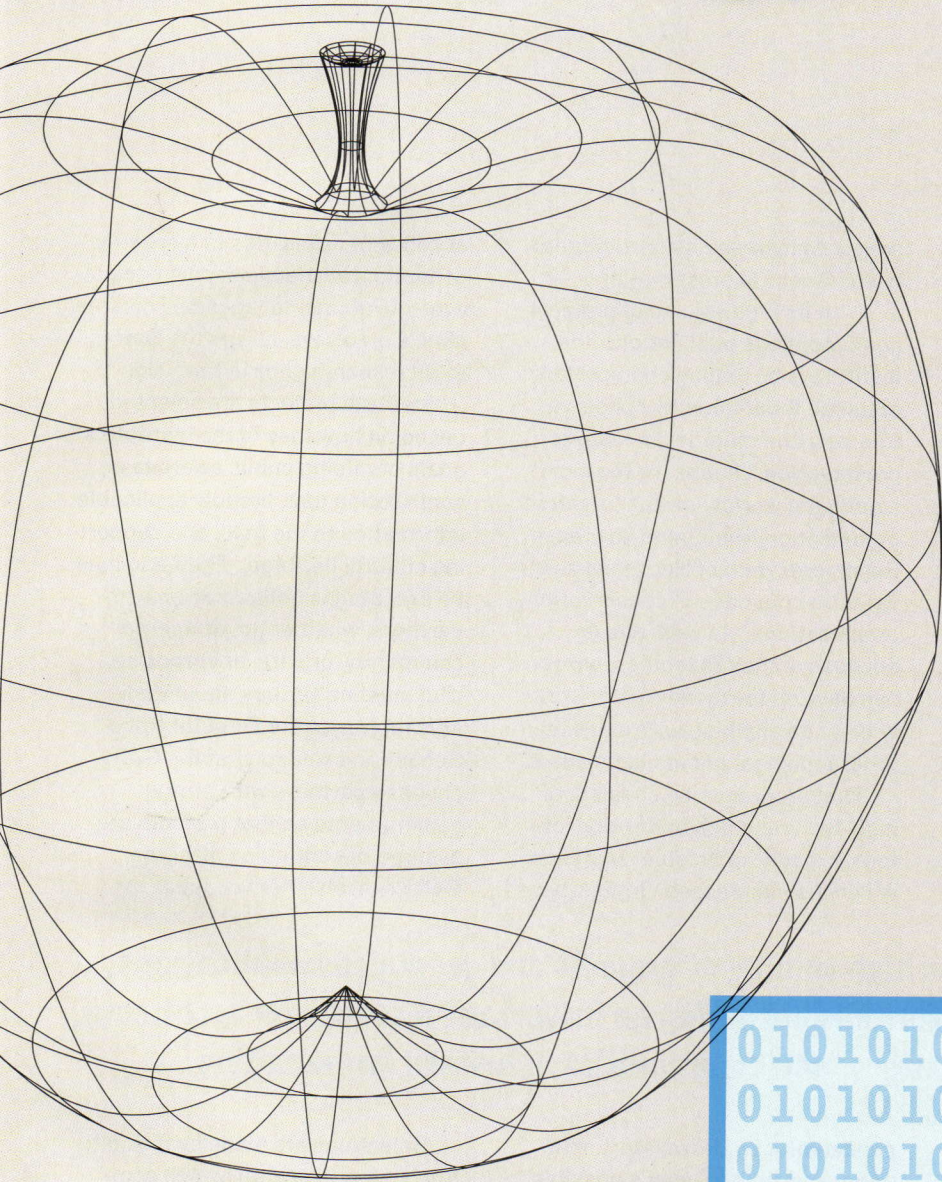
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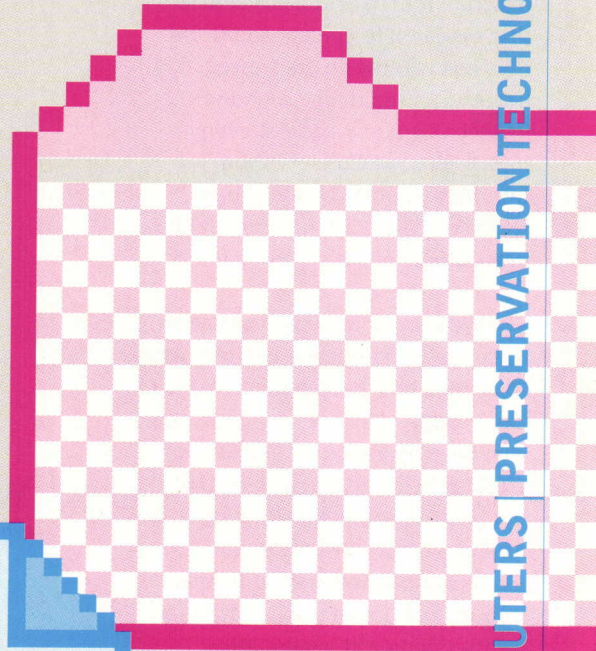
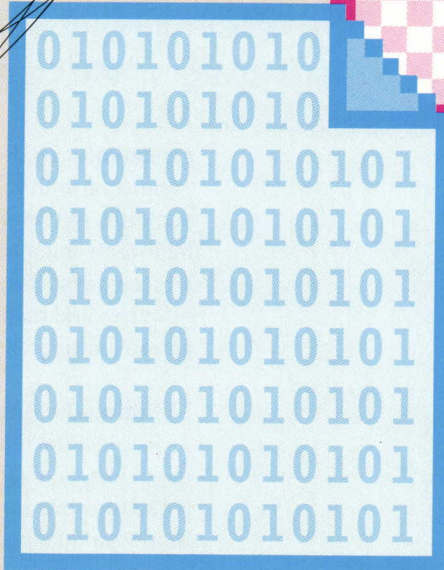
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Technology + Practice



Smart management of resources is crucial to successful practice. Architects learned that lesson the hard way in the 1980s and are now implementing new strategic safeguards for the current boom, including computerized project archives. For preservation architects, the new Getty Center offers valuable technical resources through its world-renowned conservation institute.



TECHNOLOGY | COMPUTERS | PRESERVATION TECHNOLOGY | PRACTICE

From its hilltop perch above Los Angeles, the Getty Conservation Institute reaches out to preserve the world's cultural heritage.

By Eric Adams

The 12-year-old Getty Conservation Institute is as ambitious as its new Richard Meier-designed headquarters within the \$1 billion Getty Center. The 93-person organization operates a \$25 million-per-year program that uses the latest scientific research to conserve cultural heritage worldwide. Its approach, however, is realistic, grounded in a local case-by-case strategy that begins, as Conservation Institute Director Miguel Angel Corzo explains, by changing public perceptions of the significance of cultural heritage.

"We know that for conservation to be really significant, we first need to change how people think about it," Corzo says. "Until we educate those who have no sense of the need for cultural heritage, but who hold the purse strings, there isn't going to be a lot of support for conservation."

This education is accomplished through public outreach programs; partnerships with community, government, and private conservation-related organizations; on-site conservation efforts; conferences; training; publications; and development of conservation techniques that further the cause.

Originally, the institute focused on conserving artworks, both within the Getty Museum's collection and outside of it. But since its founding in 1985, the organization has realized the importance of the built heritage as a partner to the visual arts and

sought to increase its participation in architectural preservation.

With its high volume of projects and prodigious publications, the institute is becoming an important resource for architects, conservators, and communities in historic preservation. "I think it's the most significant worldwide conservation organization," maintains Lawrence Reger, president of Heritage Preservation, a collective of conservation organizations. "In part, this is because of their resources, but you can have all the money in the world and not do anything with it. It's their programming that sets them apart."

That programming consists of high-tech research to develop low-tech, broadly applicable solutions, which also impresses Virginia-based

absence of formal ties to a specific collection, academic department, or even governmental agenda. This freedom, Corzo says, allows the Getty to fill research gaps in the field.

Institute projects are selected based on how they fit the institute's goals of raising public awareness, contributing new, broadly applicable information to the field, and supporting cultural heritage. They also must be executed in collaboration with partners, whether governmental, community, private, or corporate, who must be serious about their efforts. Associate Director Rona Sebastian explains that the Getty chooses partners with strong commitments so that projects are assured of continuing after the Getty's involvement ceases.

With its high volume of projects and prodigious publications, the institute is becoming an important resource for architects, conservators, and communities in historic preservation.

conservator W. Brown Morton III. "There's a limit to what's possible in societies that aren't able to maintain high-tech conservation solutions," Morton says. "The Getty develops effective and responsible conservation methodologies."

Filling the gaps

Though the institute operates much like a university or a museum, it has the advantage of a privately funded annual budget as well as the

Selections are made by the institute's executive staff, which comprises experts in observation-related areas such as art, architecture, research, science, and documentation. Projects not initiated by the Getty are evaluated based on submitted material and consultations with participants. The selection process is ongoing, but at any given time, the institute may be engaged in between 20 and 30 projects.

San Diego architect Wayne



High-tech laboratories equipped with accelerated weathering equipment and electron microscope help Getty scientists develop conservation methods.



In Quito, Ecuador, conservator takes paint samples to determine original color of commercial building.

Donaldson has worked with the Getty as a grant reviewer and advisor to the institute's adobe research project. He is attracted to the group's daring approach to project selection. "They tackle tough projects—the Sphinx, Mayan pyramids in the Yucatan, rock art," Donaldson explains. "And they always try to get at the source of a problem. If a building is being damaged by sulfur plants nearby, for example, they'll try to stop the pollution."

Aiming for training

The objective of each architectural project is to rescue the object, but also to teach local craftspeople the conservation methods employed and to promote research into new methods. Giora Solar, director of special projects, emphasizes that training is crucial not only for preserving other local structures in the future, but for the continuity of each project as well. "Part of our problem is that when we finish our involvement in a project, we leave," Solar says. "For that reason, training is an important component. Otherwise, the effort is not sustainable."

In Quito, Ecuador, for instance, where the institute helped document and conserve the town's historic city center, it trained local architects, engineers, and conservators in research, documentation, and conservation methods. This training took place both during the project and in workshops conducted after most of the work was completed.

Courses, workshops, and conferences make up the bulk of institute training programs. In 1993, Ozone Park, New York, stone conservator Kate Ottavino participated in a preventive conservation course, held in the institute's former facility in Marina del Rey, California. The course addressed collection conservation in museums but integrated the buildings themselves into the study. "They realize that the building that houses the collection is an artifact as well," Ottavino says. The course examined environmental effects on buildings and collections, dueling needs of historic structures and the art within them. "Rather than focusing on fixing the problem," she says, "they show that it's better to try to prevent the problem."

Scientific methods

Since so much architectural conservation work relies on scientific analysis, laboratory research is a major component of the institute's efforts. The Conservation Institute's scientific program maintains two floors of advanced labs where staff researchers study material deterioration under a variety of stresses. Scientific Program Director Alberto Tagle explains that his prime responsibility is to teach architectural conservators how science can help them in their work. This is especially true, he says, with modern materials, such as concrete and architectural ceramics, whose aging processes have not been well-researched.

The scientific program helps building owners and conservation groups find deterioration causes, but rarely implements solutions. A current project involves the dramatic deterioration of 22 Aquila sandstone columns in the National Arboretum in Washington, D.C. Originally housed inside the Capitol's east portico, the columns were stored outdoors after being removed during a 1958 restoration and then relocated to the Arboretum in 1988. "We're advising as to what is causing the deterioration, which is essentially the exposed sandstone naturally turning to clay," Tagle explains. "Then we'll recommend solutions and conservators to do the work."

The program's technological centerpiece is a scanning electron microscope, which Getty conservators use to analyze molecular breakdowns in materials such as mortar, plaster, and wood. But one of the most valuable techniques they have developed is a time-lapse weathering study that compresses hours or days of exposure to air flow, temperature, and humidity into a few minutes.

This time-lapse video is currently being applied in studies of salt crystallization in limestones like marble. "We're planning to study damage mechanisms and then, from this, arrive at methods and materials for stabilization against water, pollution, and erosion," explains William Ginell, head of the institute's architecture and monuments conservation research department. "These



St. Isaac's Cathedral is one of many structures that represent St. Petersburg's heritage, which the Getty is helping protect.



In Oaxaca, Mexico, a 22-meter-high retablo is being restored and stabilized by the Getty within the Church of Santo Domingo.

materials exist worldwide, and yet there are no universal methods for conservation available."

Meticulous documentation

But perhaps the institute's most profound contribution to conservation is the dissemination of information and methods learned in the field. Documentation of all institute projects is extensive, and it maintains an information center with more than 25,000 volumes plus journals, on-line databases, and complete abstracts of all technical documents produced.

The institute's documentation division, which manages the library, also participates in major projects. The most significant currently under way is the structural repair of a church retablo in Oaxaca, Mexico, a project that includes extensive documentation, paint and wood conservation, and stabilization against seismic forces. The latter will involve dismantling part of the retablo and reconstructing it with an improved, yet to be determined, support system. "We are looking for a solution for this retablo, but also for others in similar situations," says Solar.

An important resource

Considering the endangered state of so much of the world's architecture and other forms of heritage, the institute's challenges are certainly great. And though the institute has proven its effectiveness in confronting these challenges, some have concerns about the organization,

particularly concerning its size and youth. Renowned preservationist James Fitch, head of historic preservation for New York architect Beyer Blinder Belle Architects and Planners, thinks the organization, although an indisputable world leader in conservation, is like an "octopus with its tentacles all over the place. The new headquarters displays these qualities," explains Fitch, who participated in a Getty architectural preservation conference in Paris in 1994. "Like the buildings themselves, the institute is very well-intentioned, but is so large and complex that working with them can be dismaying."

Still, the Getty's reputation for sound resource management and the institute's dedication to its goals promise to make it a reliable player in worldwide conservation efforts. "The institute has a high standard of professionalism and is very influential on conservation matters," maintains Peter Brink, a vice president of the National Trust for Historic Preservation. The Trust participated in a 1995 Getty-sponsored conference on preserving historic structures after natural disasters that was conducted in collaboration with the Federal Emergency Management Agency (FEMA) and Heritage Preservation following the 1994 Northridge earthquake in Los Angeles. Explains Brink, "Because of their collaboration, FEMA is now much more responsive to preservation issues following natural disasters."

Getty Grants Fuel Preservation Success

The Getty Grant Program, which is independent from the Getty Conservation Institute, is an equally important contributor to architectural conservation efforts and a valuable resource for preservation architects.

"There are a lot of really smart people doing good work, and all they're missing is money," explains Getty Senior Program Officer Timothy Whalen. Fully international and not limited to Getty-sponsored projects, the program provides funding to non-profit charitable organizations for the planning of and preparation for historic-property conservation efforts.

"Our intent is to help organizations bring together appropriate teams of people for a project," Whalen continues, adding that grants range from \$2,000 to \$250,000, and average around \$25,000.

Architectural projects funded by Getty grants include the conservation of several churches in England; the Corcoran Gallery of Art in Washington, D.C.; the Nathaniel Russell House in Charleston, South Carolina; and a temple in Sri Lanka.

Ann Beha Associates of Boston has executed two projects funded by Getty grants, both historic-structure reports for New Hampshire museums. The reports detail the buildings' evolution and history, current conditions, and restoration potential. "Our challenge was to develop a preservation philosophy that honored the evolution of change in each of these buildings," explains Principal Pamela Hawkes, who praises the grant program for the standards it sets: "The Getty funds projects worldwide, so in the U.S., the projects have to be of particular distinction."

Selected by a peer-review process, the grants do not cover actual construction work, but usually can be leveraged to gain support from other organizations. "These grants become sort of a *Good Housekeeping Seal of Approval*," Whalen contends, "and enable the groups to raise more money to complete the project."

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Architectural firms are now busier than ever. But this upsurge is better than the high-flying 1980s, thanks to savvy principals and tougher clients.

By Michael Maynard

At architectural firms across the country, the lights are staying on later, overtime has once again become an accepted part of the job, and space in the design studio is shrinking with the addition of new employees. These signs prove what principals have known for the past two years: Architectural firms are busier than ever.

Yet the happiness of firm principals is tempered by memories of a similar boom 10 years ago that was cut short by an economic slump few anticipated. Firms that hired more architects or bought or leased new offices were forced to shrink by laying off junior and mid-level employees. Unable to find work, many architects never returned to the profession.

For those who survived the recession, the boom-and-bust cycle of the previous decade offers important lessons for how principals should operate in the current climate of growth. Gone are the days when architects would buy buildings or hire more staff on the basis of one or two large projects. "Those of us 45 and older who went through the 1980s have a healthy respect for downturns," maintains Jim Loftis, president of AIA Oklahoma, who heads his own firm in Oklahoma City. "It changed the way we practice."

Architects also have a more informed view of regional and national business cycles. Principals report that the current demand for services covers a wider swath of industries, market sectors, and regions than in the previous decade. From Boston

to Seattle, Houston to Detroit, business is strong and steady. Why should architects feel more confident at the end of 1997 than they did in 1987; what has changed?

A different economy

A key difference is that the business owner, not the speculative developer, dictates the pace in today's marketplace. In the 1980s, the building boom was fueled primarily by developers who would commission a shell, given federal tax laws that offered significant loopholes for investments in speculative buildings. With those breaks written out of the tax code, buildings designed by architects in the 1990s are fueled mainly by real demand.

Record-low office-vacancy rates are being reported in many metropolitan areas: As a result, when a structure is built today, it is typically designed for a specific use. While there is still some speculative development, architects say it is no longer

the norm. Steve Saunders, a partner of Eckenhoff Saunders Architects in Chicago, is typical of many architects who specialize in commercial and institutional buildings. Almost all of his work is for business owners expanding their existing facilities.

Such demand is occurring in both the public and private sectors as part of a broad-based economic expansion. For the past seven years, the nation's economy has grown, although it only has been over the past two years that architectural firms have experienced gains. As the outlying suburbs of major metropolitan areas continue to grow, the demand for housing and schools is increasing. On college campuses, academic buildings are being built or renovated as those from the 1950s and 1960s are becoming obsolete. Corporations that have made tremendous gains in a lucrative stock market are building or expanding their space and regional headquarters. High-technology companies,

WHY THE 1990S ARE BETTER THAN THE 1980S

1

A different type of economy

The boom of the 1980s was fueled primarily by speculative developers. Today, there is a real demand for client-specific buildings. The overall economy is stable—low interest rates, low inflation, and low unemployment.

2

With age comes wisdom

Unlike the principals of the 1980s, today's leaders know that the current bubble will eventually burst. Firms are making sure that all their eggs are not in one basket and that they do not make foolish investments.

bolstered by four or five quarters of solid profits, are evolving from start-up concerns into second-generation companies requiring larger and more sophisticated offices. And the demand for more recreational opportunities continues to spur the retail and entertainment markets.

With age comes wisdom

The most significant difference between the 1980s and 1990s is that today's architects understand that the bubble will burst. "In general, architects are far wiser than they were before," asserts Hugh Hochberg of the Seattle-based Coxé Group, a management consulting

firm. "We know exactly where our workload is, who needs help, who may have a person," explains James R. Follett of Gensler. Any employee or office with a light workload is immediately pressed into service.

Firms are instituting other practices to streamline their management. For example, cost-accounting systems are more efficient than they were 10 years ago, notes Mark C. Zweig, principal of Zweig White & Associates, a Natick, Massachusetts, consulting firm.

Software programs have expedited these management practices. For example, timesheets can be completed on-line, enabling

success is based less on their skills as architects and more on the buoyant economy.

Some firms are taking that advice to heart. They are not over-extending their finances as many had in the past. For example, firms may continue to lease space rather than buying an office building. Because more of the design work can be done by computer, principals may opt to outsource some of the basic project designs instead of hiring a full-time employee. And there is a greater emphasis on professional development to keep employees.

Tom Gerfen, managing principal of Robinson Mills & Williams of San Francisco, recalls his firm "dabbling" in all types of projects in the 1980s. "It was growth for growth's sake," says Gerfen. Today, the firm has established a niche of designing and reconfiguring workspaces for corporate clients. It has learned to use this niche to team with others that may specialize in another aspect of a project. For example, the architect is designing the interior of a shell that is being completed by HOK on a fast-track schedule.

Architects have a more informed view of regional and national business cycles than in the past.

firm. While firms were bullish in the 1980s, "it was, in fact, a pretty fragile time that nobody was paying attention to," maintains Hochberg.

Today, some architects have learned to pay close attention to the marketplace, constantly honing their projections about future commissions and the timetable for current ones. At BOORA Architects in Portland, for example, weekly staffing updates provide the basis for how to best utilize staff. Gensler's managing partners discuss the firm's workload with a weekly conference

managers to analyze quickly where and how employees spend their time. Other software allows managers to analyze performance data, information that, even 10 years ago, was restricted to only a privileged few. The result of this on-line information flow, contends Zweig, is a firm that can react quickly to changes in the marketplace and adjust accordingly.

Zweig cautions firms not to take their present success for granted. "It's a function of the marketplace," he contends. Firms will be better-off when they understand that their

Time is money

In today's environment, clients are willing to spend whatever it takes to have their project completed quickly—once the architectural firm has been selected. Architects report that clients are smarter and more knowledgeable about the design process than they were a decade ago. The Hillier Group, based in Princeton, New Jersey, for example, needed only to rely on its reputation in the 1980s. Now, potential clients will "shop around" to select a firm. For example, Merck & Company, the New Jersey-based pharmaceutical giant, has employed the Hillier Group on several large projects over the years, but it still requires the firm to compete for new work.

Clients are also more experienced in the selection process and they understand what each firm offers them. Zweig maintains that an

3

For clients, time is money

Clients are smarter and more savvy than ever before, but they are also willing to spend what it takes to get the job done correctly—and quickly. Virtually all projects today are undertaken according to the fast-track process.

4

Technology has changed the rules

Computers have made it easier and faster to get projects done. Firms with multiple offices can share the work. And busy firms can now outsource the more technical aspects of projects, freeing up their design professionals.

educated client makes a better client. "They know what their needs are, they don't change their minds as much, and they are pragmatic."

Pragmatic, but impatient. With shareholders scrutinizing every move, boards of directors are under intense pressure to complete buildings or corporate campuses according to fast-track schedules that a few years ago would have been unthinkable. Architects at Payette Associates in Boston, for instance, had 13 months to design and build a 100,000-square-foot laboratory. "The market has made it such that you have to step up to the plate and do it," explains Associate Todd Sloane.

In this fast-paced environment, clients expect architects to have a greater understanding of their needs. For architecture firms to be competitive today, they must go beyond shaping the space and developing the program, asserts Rick Lincicome, the president of Ellerbe Becket Architecture. Consulting firms, such as Arthur Andersen and Arthur D. Little, are beginning to draw clients away from architects because they provide a package of integrated services that measures employee performance and maps out a strategy to improve the work environment. That's a contrast from the 1980s when corporate clients were only interested in having the architect produce a building design. With an increased emphasis on providing a range of solutions for a business, principals are becoming more involved with the clients in order to furnish them with the same level of business understanding. Clients, according to Lincicome, "want to be

able to talk about the business issues they're addressing, so you need the principal who has that expertise."

Technology changes the rules

Computer technology—from advances in CAD to the sharing of project files—has enabled architects to work faster. This speed is no secret, especially among clients,

more productive in a shorter period of time than a student coming out of college a decade ago.

Recognizing that advanced computer technology is only as good as the employees who can utilize it, firms are conducting more in-house training than they did in the 1980s. The Coxe Group's Hochberg says that more firms are investing in

Clients are smarter in the selection process and expect architects to understand their needs.

creating an environment of unrealistic expectations. "The client seems to have moved through this information revolution with an idea that since everything is on computer, the building process should be reduced by half; the design process should be by the press of a button," says Hillier Group Principal Barbara Hillier.

For firms with multiple offices, information, including drawings, can be shared among team members, a feat that was nearly impossible 10 years ago. Gerfen recalls a 500,000-square-foot campus project in which the interiors were completed in the firm's San Jose office while the exteriors were being finished in the San Francisco office. During the project, information was shared on a computer network between the two offices.

CAD allows technical drawings to be outsourced or completed by part-time employees, allowing architects to concentrate on design. Saunders explains that working with computerized design programs has streamlined the entire design process. A recent graduate can become much

these types of initiatives to broaden their employees' skills. Firms such as Lord Aeck & Sargent and HOK have established "universities" to provide specialized training.

How long will the good times last? No one can say for sure. Although the economy remains strong, a stock market bust or a rise in interest rates could quickly cast a chill on the industry. But when the bubble does burst, it will be less painful for most architects, asserts Hochberg, subscribing to the theory that people do learn from their mistakes.

Firms that have instituted sound business principles and accounting controls will be able to adjust more readily when clients are no longer beating down the door. Likewise, those firms that have worked at sustaining their niches or establishing new ones may not even notice a drop in business when the market dips. And for those that are merely riding the wave, like the firms of the '80s, they may find themselves treading water until the next "good times" come back.

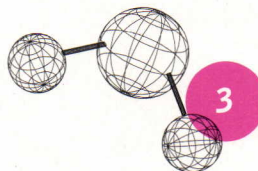
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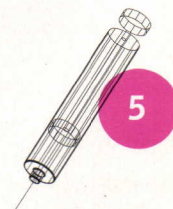
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Managing the Firm's Archives

Organizing data from past projects into an accessible resource requires the power of computer networks.

By Patrick Mays

Can you find a sketch that solved a waterproofing problem six years ago? If you needed to find a copy of a letter from a structural engineer approving changes to beam sizes, where would you look? Do you keep photographs in low-humidity storage? How are your CAD drawings organized?

Most of us hope that tools of technology will free us from these concerns. They can, of course, but not without a coherent system that integrates computer and paper files. Letters and shop drawings will continue to be submitted on paper, and film cameras will still be used for inexpensive photographs. Easily accessing all of this archived information is an important part of any architecture firm's efficiency.

It's also an important legal concern to have ready access to all historical project records. While statutes of limitations on architects' liability vary from state to state (some states have none), a safe rule of thumb is to have all project data and correspondence available for 10 years after the date the project was substantially completed. Yet, while signed faxes became legally admissible in the mid-1980s, no court has yet allowed electronic documents to serve as evidence in a dispute. So it's a good idea to have hard copies of computer-generated documents organized in a safe place.

Directory-based organization

A standardized filing system is the obvious starting point. Computer files are usually stored in a hierarchy of folders or directories, which can be imitated in the paper world. One of the most common systems is to set up separate directories or files for each project, and subdirectories for each type of subject matter, such

as communications, reports, photographs, drawings, and accounting records. Under this organizational system, meeting minutes, letters, and transmittals would be found in a directory called communications, while bills, cost projections, and contracts would be filed in a directory called accounting records.

Within each subdirectory, the architect's relationship to each member of the project team—client, consultants, contractors, and government agencies—might be further categorized. Material in individual files should be arranged chronologically. If this kind of organization is followed for active files, then backups and archiving become much easier to manage.

Computer backups

Daily, weekly, and monthly backups of computerized information on magnetic tape provide insurance against accidental loss and the expense of re-creating that data.

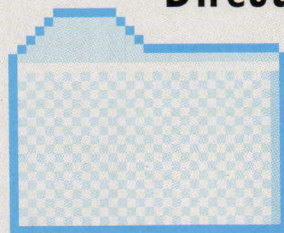
Backups are duplicate copies of data written to a storage device, like a tape drive, to protect files that reside on a network or hard drive from accidental damage. Most businesses have systems set up to back up their data automatically.

Archiving is a more rigorous process of cleaning up and organizing inactive data that is ready to be removed from a file server. As with paper files, computerized information must be sorted to eliminate confusing duplicates and unimportant records. It also helps to create an index or summary of files both on disks and in printed form.

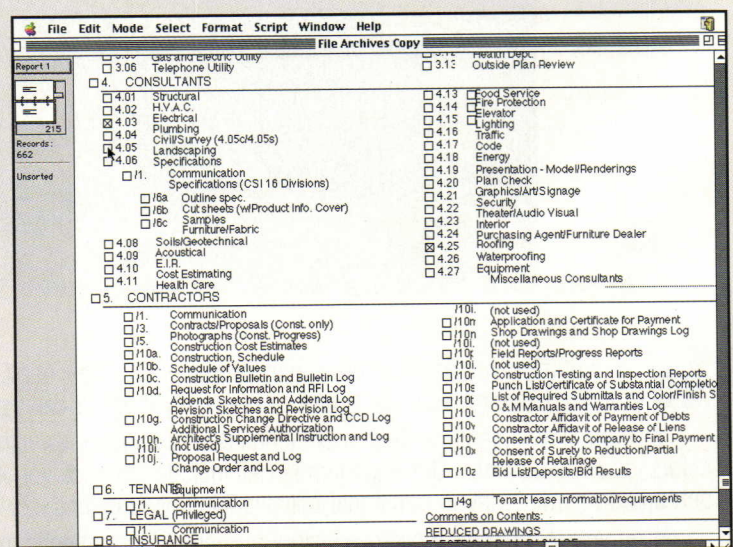
Backups on magnetic media may only be saved for a few months to a year because they can be damaged by heat or static discharge. But archived data needs to be accessible up to a decade or more. As long as architects are liable for their work, they will need to be able to access their records.

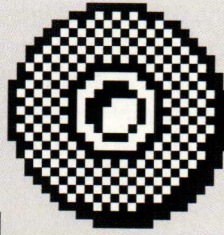
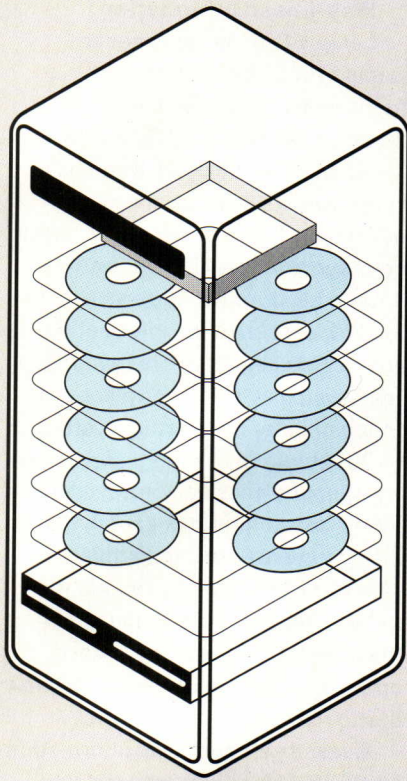
The power that comes with being

Directory-based organization



Directory of correspondence is subdivided to list each subconsultant for a larger project. A directory for a smaller project may specify only broad categories such as consultants and contractors.





CD-ROM archiving

CD "jukeboxes" (far left) allow for tremendous storage capacity and can be accessed from local-area networks and intranets. On-line database programs (below) can be used to archive new projects as you work.

able to reuse legacy data, such as standard construction details or specifications, becomes apparent when combined with a proper medium that allows stability, ease of use, and large storage capacity. Data-coordinating efforts can be best served by using technologies like compact disc-read only memory (CD-ROM) devices, which, unlike magnetic media, are read optically by a laser beam and are highly resistant to physical damage.

CD-ROM archiving

Some of the biggest reasons for considering CD-ROMs as an archival media are their low cost and high capacity. Michael Shaw of Central Digital Resources in Great Neck, New York, has been using CD-ROMs for storing traditional data like CAD files for clients such as the Library of Congress, Bechtel Corporation, and the Port Authority of New York and New Jersey. "The construction industry has not addressed storage and archival needs properly," Shaw points out. "With the advent of the

Internet and its associated data, we need solutions now."

Shaw uses recordable CD-ROMs for archiving. With these devices, archivists transfer formatted documents electronically—whether digitally created or scanned—onto CD-ROMs, inexpensive, reliable, long-term media that then can be stored away. This method saves time, space, and money, claims Shaw, who puts between 500 and 700 24-by-36-inch drawings on one CD.

When you consider the enormous amount of Internet data that can be accumulated in an office, the storage of this data for quick, accurate retrieval becomes an important issue. Manufacturers' specifications and details may be slow to download from the Internet, but once they are available on a local network, they can fit into an office's unique organization for speedy retrieval.

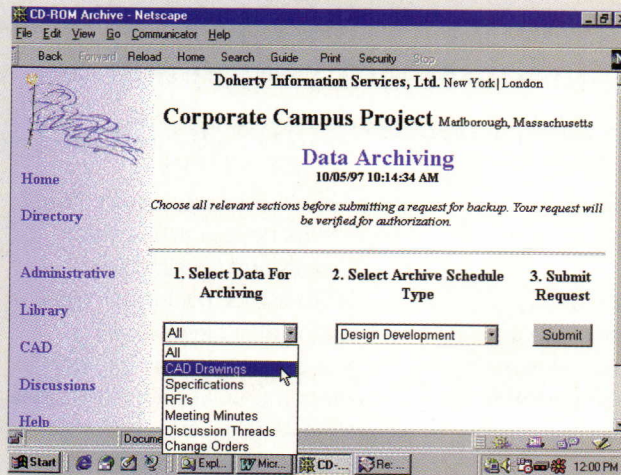
By saving data on a CD-ROM, the information can be retrieved from a hardware device called a CD "jukebox" that can be hooked into a local area network (LAN). A jukebox

allows storage of 50 to 100 discs at a time for instant access by LAN and intranet users. Some systems offer bar codes on each disc for indexing and retrieval. Imagine the time and money saved locating documents with this technology during a dispute resolution. The time-and-date-stamping feature within most recordable CD-ROMs is important in case the data is ever admitted into court.

Data banking

Many firms are providing non-traditional services these days, like facilities-management services, postoccupancy comparisons, and life-cycle analyses. As a result, some firms are becoming digital information warehouses for clients who cannot find suitable internal resources.

Architect Paul Doherty, principal of New York-based Doherty Information Services, uses archived data to control and manage project information. "As we design, develop, and manage intranet, extranet, and Web sites for our corporate clients, the archiving process becomes an



important part of efficiently documenting the history of the projects," Doherty maintains.

CD-ROM archiving is not only an easy method, but Doherty says that it is considered a necessity, not a luxury, especially given the large amount of information and the speed that Internet connectivity brings to a construction project. His firm chose CD-ROMs for high-capacity

the CD as the single point of reference for the entire project. "By building a project intranet, with extranet or external access capabilities, you create one central repository for project information for a building," Doherty explains.

Doherty sees extranet site maintenance and CD recording services expanding into data escrow, or data banking, services, in which data is

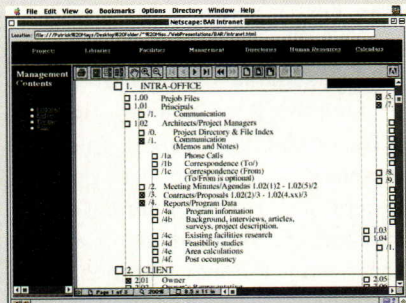
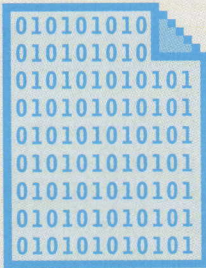
Archiving is an important component to efficiently documenting the history of a project.

archiving because of the CDs' "multisession" capabilities and archiving capacity.

The multisession capability means, for example, that you can store project information at certain milestones and build on that information as the job progresses, using

stored by a third-party agency. The project data resides in one place that is easily archived, indexed, and retrieved at a moment's notice. Information about individual construction projects is then banked into a data warehouse, and all parties agree that it is the correct information on which decisions were based. This data can then be retrieved for dispute resolutions, for facilities work, or for future renovations and additions.

Web-based information



Freehand sketches can be scanned and added to Web-based archive, but clear organization is always key to finding information later.

Web-based information

Longevity of storage media is important. The problem with traditional backups and archives is that the files still need their native applications to be used. If you have spreadsheets, word-processing documents, and CAD drawings, each corresponding application would have to be stored on the archival disk to allow access to the information. For records kept for more than five years, you may also need a copy of your computer's operating system.

To avoid this copyright and licensing dilemma, files can be saved in a Web-based format, meaning that the documents are compatible with hypertext mark-up language (HTML), the universal language of the Internet. For future reference, only a Web browser is needed to view the contents of an archival CD.

Reasons for archiving information on CD-ROM in a Web browser-readable format include its admissibility in dispute-resolution cases, the reuse of data for facility management, quick access to legacy data, the medium's inherent stability and long life, its low cost and storage area demands, and the ease of information distribution.

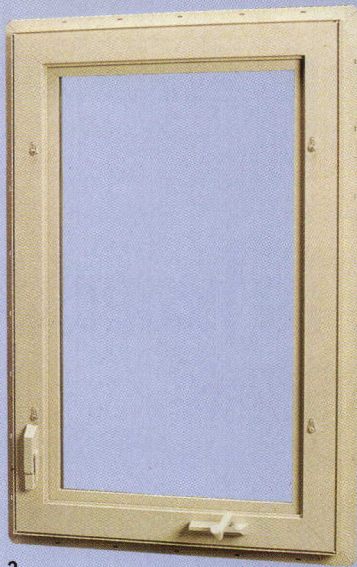
Web-based formats present other opportunities, as well. Architect Michael Woodcox of Backen, Arrigoni, and Ross in San Francisco includes three-dimensional models of his project on his company's intranet, which provides an excellent record of a building's design as it progresses through the community approval process.

There may be a time when architects manage all their information electronically. But for now, because paper documentation will continue to be required in courts, hard copies of computer files remain an essential component of an archiving system. The ultimate success of these systems still depends on a clearly planned organizational structure.

Patrick Mays is director of technology at HOK in San Francisco.



1



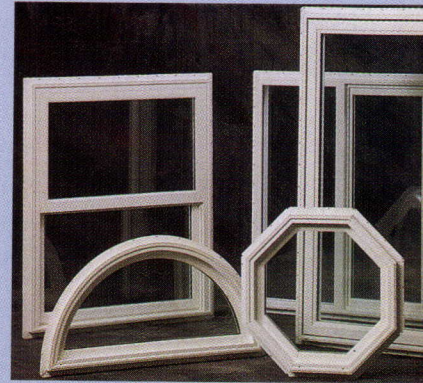
2

1 Replacement Window

Pella's Precision Fit Architect Series windows improve energy efficiency with InsulShield insulated glass. Frames are designed to replace existing units without damage to original woodwork. Windows are available in sizes that correspond to most older double-hung windows, and can be painted or stained to match existing trim. *Circle 291 on information card.*

2 Vinyl Window

Windsor's Next Dimension line of solid vinyl windows are designed to resemble wood frames, but are made of a durable, polyvinyl chloride-based compound. All windows feature prepunched nail fins to ease installation. Casement, sliding, and single-hung models are available. *Circle 292 on information card.*



3

Window Systems

Vinyl frames and sunshades improve energy efficiency.

3 Aluminum-Reinforced Frames

Hurd now offers the Monument Collection of vinyl-clad aluminum windows and patio doors. The line comprises casement, awning, and sliding window models. All products can be specified in two grades that incorporate aluminum-reinforced frames. All windows are available in white or almond and feature mitered corners to eliminate gaps and leaks. *Circle 293 on information card.*

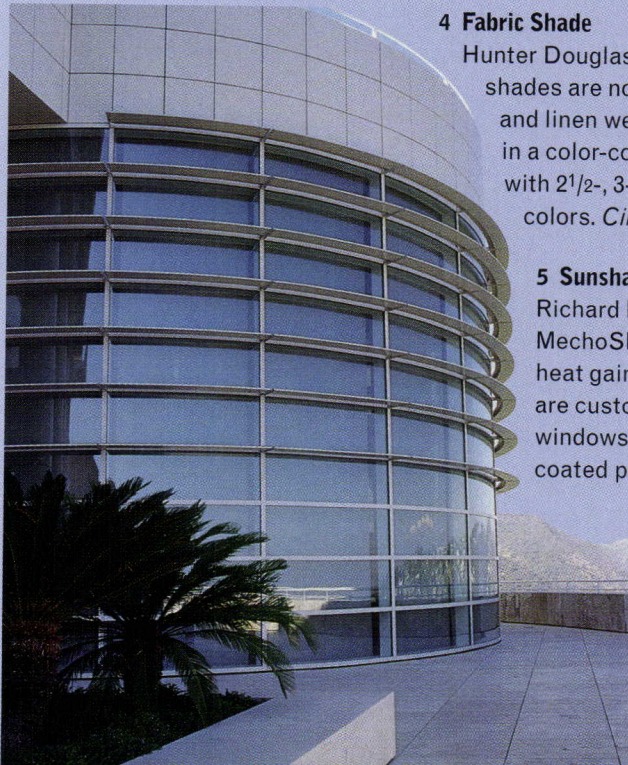
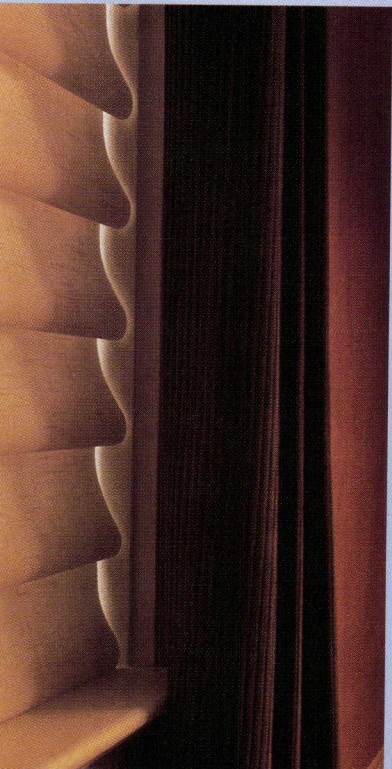
4 Fabric Shade

Hunter Douglas's Vignette pleated fabric window shades are now available in two new fabrics: seersucker and linen weave. When raised, the shades are hidden in a color-coordinated headrail. Shades are available with 2 1/2-, 3-, and 4-inch folds in four fabrics and 50 colors. *Circle 294 on information card.*

5 Sunshade

Richard Meier's Getty Center incorporates MechoShade's solar-protective shades to prevent heat gain and block ultraviolet radiation. Shades are custom-designed for the Getty's tall, narrow windows. The translucent screens, made of vinyl-coated polyester, afford dramatic views of Los Angeles while protecting artwork and reducing glare. The company also offers electronically operated shades. *Circle 295 on information card.*

4 5



We suggested calling it "The Steelcraft Dome"
but we got outvoted.



THE GEORGIA DOME. JOINT VENTURE ARCHITECTS: Heery International; Rosser Fabrap International; Thompson, Ventulett, Stainback and Associates. STRUCTURAL ENGINEERS: Weidinger Associates and Harrington Engineers. MAIN CONTRACTOR: Beers Georgia Dome Team. STEELCRAFT DISTRIBUTOR: Southern GF Company - Atlanta, GA.

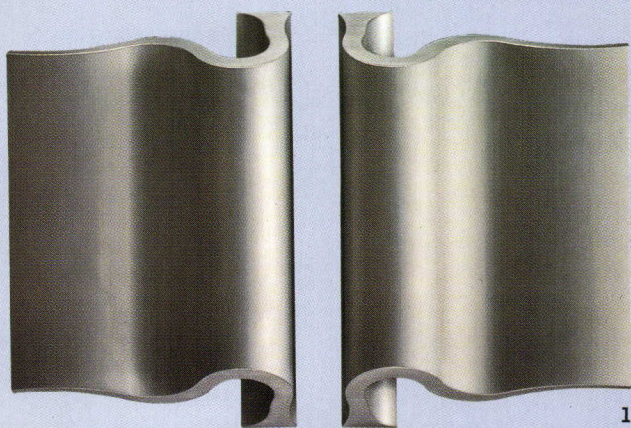
To us it made perfect sense. After all, there are Steelcraft products just about everywhere you turn. In the main entrance areas you'll see our "L" Series Doors and "F" Series Frames. And near the elevators you'll find our "A" Series Doors and Architectural Stick Systems.

While many liked our idea (vendors, family, etc.), we concede that the "Georgia Dome" has a nicer ring to it.

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1

1 Sinuous Pulls

The Wave Collection of solid aluminum door and cabinet pulls by Forms and Surfaces features fluid, undulated lines. Door pulls measure 12 inches high and 8¹/₄ inches wide and can be mounted back-to-back on wood, metal, or glass doors. Polished, speckled, turquoise, gold, and matte finishes are available. A line of matching cabinet pulls completes the collection.

Circle 296 on information card.

2 Brass Finish

Omnia Regal's solid brass mortise handles now feature a finish called Max Brass that protects brass from tarnishing, pitting, and flaking. The finish bonds protective molecules to the brass to create a transparent, glossy seal. Max Brass can be specified on most of the company's mortise handles. Circle 297 on information card.



2

Door Hardware

Pulls and levers are streamlined in curved metals.



4

3 Bronze Door Pulls

Forms and Surfaces draws upon the hooked forms and sharp tips of animal claws for the bronze door pulls in its Talon Collection. The company offers 8¹/₂- and 12-inch-long styles that can be installed back-to-back or single-mounted. Five finishes, including polished, brushed, and oil-rubbed bronze, are available.

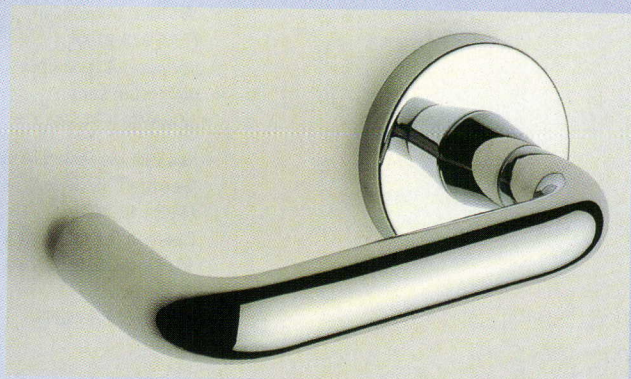
Circle 298 on information card.



3

4 Foster Design

British architect Norman Foster designed the latest door handles for Valli and Valli's Fusital series. Foster cites images of birds as the inspiration for his stylized winglike lever. The 10³/₄-inch-long lever is available in a range of materials, including metal, wood, rubber, and leather. Circle 299 on information card.



5

5 Bent-Bar Lever

Schlage's latest L-series bent-bar levers with mortise locks are made of solid metal for added durability. Each ³/₄-inch-diameter lever replicates the strength and weight of more expensive forged models. L-series models are available in brass, bronze, or stainless steel and can be specified with high-security lock cylinders. Circle 300 on information card.

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Le Corbusier's **eyeglasses**, like a saint's relics, are preserved at the Le Corbusier Foundation in Paris. They should be: Corb's signature round frames have influenced generations of myopic architects.

Get enough architects together, and you're bound to spot variations on Corb's classic theme. "Of course, Le Corbusier influenced me," admits Philip Johnson, who has been wearing the same pair of

thought to their **eyeglass** selection. But most admit that their frames attract attention. Mayne insists that he considers his custom-made black horn frames with a metal nose bridge "basic, straightforward, and neutral." But, he reports, "after I appeared on the cover of *Architecture* [January 1997], our office got calls from all over the country, not people inquiring about our work, but just asking where I got my **glasses!**"

While circular spectacles abound among architects, many prominent practitioners eschew them. Frank Gehry, Richard Meier, and Michael Graves wear modest,

Smashing Glasses

Architects' eyewear is based on a circular tradition.

custom-made round Cartier frames since 1932. "But his **glasses** weren't round; they were oval." And, he adds, "I look down on people with oval **glasses.**"

Peter Eisenman also acknowledges a Corbusian factor in his choice of eyewear. "I was a big Corbu fan when I first started wearing a thin horn-rimmed pair back in '61," he maintains. "I wear them because they're the dumbest kind of **glasses** I can think of. I've had this same beat-up, steel-rimmed pair for 25 years."

"It's not so much that architects are emulating one another," suggests Michael Rotondi, principal of RoTo Architects in Los Angeles. "It's that many of us are drawn to the perfect geometry of the circle. And now that I've recently shaved my head, everything's round: my head, my name—Rotondi—and my **glasses.**"

Thom Mayne, principal of Morphosis, also downplays any Corbusian provenance. "I wore round **glasses** in the 1960s, long before I became an architect," Mayne explains. "That shape was absolutely a part of the times. Think of John Lennon: part intellectual, part psychedelic."

Many round-framed architects deny any vaguely fetishistic relationship with their **glasses** and disavow that they've cultivated a "look" or even given much

unremarkable models—thin-framed and often rounded, but never perfectly circular in shape.

Round **glasses** may not be the official eyewear of the architectural profession, but they've long been associated with the field. "Non-architects come to me all the time and ask for 'architects' **glasses,**" says I.M. Pei's optician, Richard Morgenthal of Manhattan's Morgenthal Fredericks Opticians. "When people say, 'I want to look like an architect,' I know just what they're looking for." *Sarah Amelar*

Part of Le Corbusier's collection of eyeglasses, preserved at the Le Corbusier Foundation.



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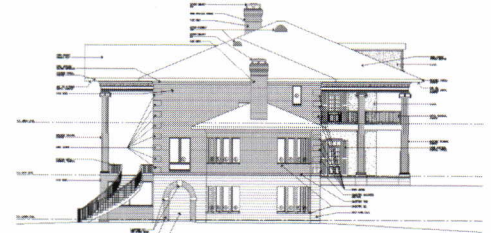
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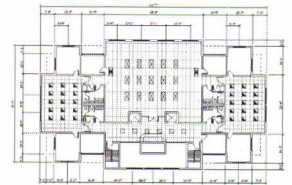
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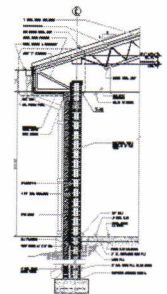
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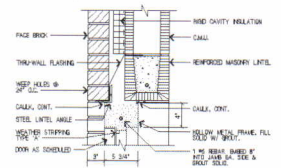
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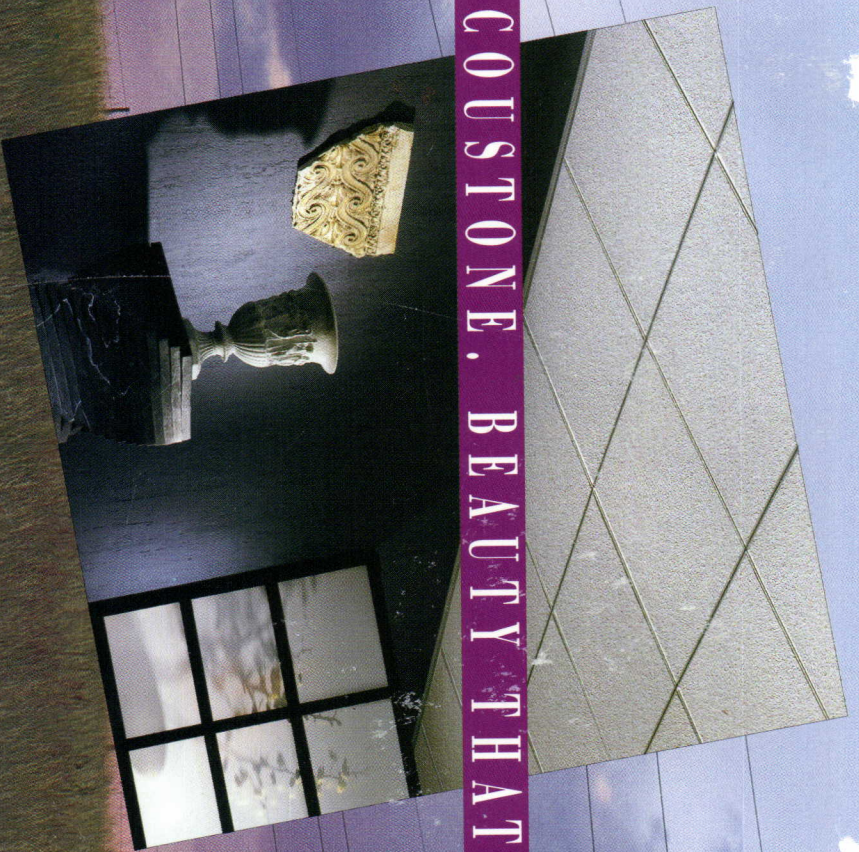
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