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The keys to the kingdom

Editorial

By Robert Ivy, FAIA

Who owns the keys to the interiors kingdom? Currently, interior designers are engaged in a full-court press to achieve licensure, with legislation planned or pending in a number of states. In California, the question is imminent: an interiors practice bill has passed the legislature there and is headed for the governor, though with no guarantee of signature. If you’re not familiar with the terms, interior designers are seeking practice acts, which regulate professions such as architecture, as opposed to title acts, which merely grant the ability to use the formal designation. Until recently, interior designers were largely an unregulated body of roughly 200,000 persons, but their leading organizations, the ASID and the IIDA, want that changed.

The topic is fraught with dissension. First, the stakes are large: the fees alone in the industry well exceed $1 billion. Architects, who routinely work with interior designers, take opposing points of view. For some, particularly those larger firms heavily engaged in interior design, the question is one of the marketplace and inevitability. But architects are heavily invested in interiors, and their numbers are growing—84 percent of all AIA member firms offer interior design and space-planning services, up from 73 percent in 1996, according to the latest AIA firm survey.

In recognition of the gravity of the situation, the AIA convened a task force in 1999 to investigate. They found that interior designers seek to distinguish themselves from less-qualified decorators, protect the right to practice, establish gender equity in a field dominated by men, and earn the respect of their fellow professionals. It sounds good and right, but are their reasons valid enough to warrant licensure? Michael Stanton, former president of the AIA, adds a fifth reason, that interior designers want to increase their share of the burgeoning market.

The designers’ point of view is consistent. When this magazine convened a panel of interior designers in April 1998, we heard a clear message: despite their gains in the industry, they feel slighted or disparaged by architects. However compelling their reasons, there are unavoidable differences between architects and interior designers. Architectural education is more rigorously focused on life safety, as well as structure, building science, and codes. By contrast, the AIA task force reported that in the 125 interior design programs currently available, education can vary from two to four years, and current testing for certification focuses more on aesthetics than safety.

The differences do not stop with pedagogy. Architects tend to engage the entire design problem, considering not only the contents of the interior, but the interior’s relation to the exterior envelope, its construction and building systems, and the natural and human-made surroundings. A healthy building—light-filled, safe, and promoting human habitation—should be architects’ professional norm. When we are operating at a high level of accomplishment, our work is holistic, integrating complex technical systems and social requirements into structures that engage the landscape, sustain their inhabitants inside and out, and enrich the community.

While we may feel sympathy for our working colleagues, practice legislation may not be the panacea that interior designers seek, if it is achieved without commensurate, fundamental changes in the education and experience of interior designers. A new name and a new law would not automatically confer new status, whatever the legislative outcome.

Most architects hate conflict, particularly with our collaborators. We consider turf wars to be petty and unworthy of women and men called to higher pursuits. We set high goals for our work and for our clients, and we achieve them, in part, through cordial relationships with interior designers. If interior designers have legitimate grievances, we must correct our own errors and help where we can; but it would be a mistake to assume that practice law will serve as an automatic panacea for them. Our own professional status reflects a public trust we have earned at high cost, and it should not be diluted.

Robert Ivy
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Architecture or sculpture?
The Experience Music Project in Seattle [AUGUST 2000, page 126] has been an instant love-hate relationship. The reason is simple. This is not so much a piece of modern architecture as it is a work of sculpture.

Architecture is based more on a didactic Marxist philosophy of thesis, antithesis, and synthesis. Divergent elements have to be integrated into a working building, and compromises are often required in order to reach a working solution. Generally, any successful building has to combine function, aesthetics, financial considerations, environment, structure, and social factors. A typical building is friendly to its neighbors. Gehry’s sculpture is just the opposite. Totally independent, it follows the pattern of other “sculptures” in Bilbao or the one proposed for Manhattan. The same form and plan fit anywhere. With its total lack of fenestration, the building should logically go underground, then have a pure sculpture on top.

Only time will tell whether EMP will survive as a great statement of our time or if it will be demolished as an obnoxious, ugly blip, to be replaced by a bland but permanent building.
—George A. Hartman via E-mail

You’ve got junk mail
After five years of schooling, over three years of internship, nine exams, countless fees, and a mile of paper work, I finally completed all the steps to become registered as an architect in my state. Even before receiving word from the AIA that my membership had been upgraded from the Associate’s status, I began receiving all of the junk mail I am accustomed to, only addressed to me with my new “AIA” suffix. What a relief that the AIA’s priorities are straight, and there will be no lapse in the endless credit-card offers. I challenge the AIA to practice what it preaches and conserve natural resources by ending the excessive, wasteful junk mailing.
—James A. Mehaffey, AIA Lancaster, Pa.

Imitated modernism
As an instructor in Design and Theory for UC Berkeley Extension, I am particularly interested in the transmission of the kind of knowledge that helps others to imagine and create. I could not agree more with Denari’s comments on the importance of the awareness of the Other in the creation of great architecture [JULY 2000, page 59]. However, I would take this comment quite a bit further.

All mankind can do, ultimately, is attempt to emulate the reality that surrounds us. I would state emphatically, to paraphrase Plato, that all art is imitation. The greater the artist, the more sophisticated the imitation. With due respect to Denari’s media recognition, he is nothing if not a great imitator. The fluid nature inherent in late-20th-century industrial design, from hair dryers to automobiles, is unquestionably a formal source for all his mostly unbuilt work.

I think it’s great that Denari and a few other mostly unbuilt architects have chosen to copy the innovations of Industrial designers. Architecture needs to break out of the box.

Another source of this imitation, of course, is the Baroque. I am currently at work on a book that dwells on the relationship of the move toward the organic that underlies the decay of a specific orthodoxy, in this case modernism. Gehry, Eisenman, and a host of younger architects such as Denari are partners in this search for a fluid, organic, ultimately “baroque” extension of classical Modernism.
—David Kesler via E-mail

Deep thoughts
I have been reading your editorials since graduate school (NC State ’98) and have really enjoyed your choices of topics and the ideas posed to everyone in the profession. I often post a copy of your monthly “food for thought” in our office kitchen, and recently have been sending an office-wide E-mail linking directly to your editorial page. July’s editorial [“Gone digital” page 17] was of particular interest and has become a generator for a lunchtime discussion. You are definitely addressing the major issues in the profession and making us think for a change.
—Jeffrey Resetco, Associate AIA New York City

Letting the Tiger out
I want to tell you how much I admire you for publishing the Stanley Tigerman Interview [JUNE 2000, page 65]. It needed to be said and you recognized and allowed it. I salute your courage and ethics!
—Betty Meyer Auburndale, Mass.

To market, to market
I’d like your professional opinion on an idea that I’ve had in mind for several years. After reading your current editorial, “Tempus fugiit” [AUGUST 2000, page 17] I believe you may be able to help. The article encourages your fellow architects to ask such questions as, “For whom are you building? For what purpose? How does the design relate to the present moment? What will be its legacy?”

Can and should the design process transform the souls of the participants, just as the building has the potential to transform the souls of the occupants? Can the process leave a legacy?

I see an opportunity for organizational development to be blended with the discipline of architecture to create a new architectural design process that embraces architecture and the building’s role from a broader perspective. This perspective goes beyond function and form to include organizational systems inquiry. Should we challenge the profession to ask questions such as: How can the design process help the organization and its people? How will the building’s design support the core mission, vision, and evolutionary process of the firm? What is the building’s reason for being? How can the culture of the firm be reflected in the space plan, design, and form of the building?
—Valerie Buignié, Assoc. AIA Lucchesi, Galati Architects, Inc. Las Vegas

Nature as example
Thanks to RECORD for bringing its readers the idea of art in architecture. The work of Santiago Calatrava [AUGUST 2000, page 70], whom I consider the Antonio Gaudi of contemporary architecture, is both poetry and art thoughtfully interwoven within a structure of steel and glass that is wonderfully natural and noble in its inspiration.

Contrary to the ideals of Rem Koolhaas and the “School of Kool” art has a definite place in the practice of contemporary architecture. Are we not trained in drawing and painting? For Calatrava and others of his stripe, nature provides the most artful and efficient model. Though I too love “the box,” there is nothing as graceful as the curves of the natural world.
—Gregory Joseph Singletary via E-mail

Umbria or bust
I read with interest Suzannah Lessard’s critique [AUGUST 2000, page 55], particularly her negative space and inside-out analogies. When I moved to Phoenix 29 years ago, the population of the entire state of Arizona was only two million.
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Okay then, everybody boing.

CIRCLE 11 ON INQUIRY CARD
Today the Phoenix metro area alone is close to three million and covers an area bigger than Los Angeles.

Before I left Arizona last year, I was involved with a group trying to get a growth-management initiative on the ballot. During the campaign we learned that our opposition—the developers and land speculators—envisioned a contiguous corridor of development stretching 250 miles from Tucson to Sedona, with pockets of preservation here and there.

Though I do agree that landscape architects are better equipped to make sprawl liveable, I don't think that sprawl as doughnut and wilderness as hole is inevitable. It only seems that way because there are so many economic incentives for sprawl and very few economic incentives for wilderness, for Umbria.

The boring suburban landscape so many detest is more a product of the mortgage-interest deduction than poor design. We wouldn't see many ttt-up industrial parks replacing farms if city land were taxed at the same rate as country land. And no sane business would want to be in that country setting if there were no federally subsidized highway going there.

Let's not throw out the old model—the built world surrounded by wilderness—until we first root out the economic incentives for sprawl. If there were no profit in sprawl, developers would be praising infill, reurbanization, and compact design.

—Pete Chasar
Brookings, Ore.

Not just for books
Since the design was first revealed last December, the Seattle Central Library [AUGUST 2000, page 121] has been the object of much discussion, criticism, and praise. It has changed little in the eight months since then. It is not a very lovable building; it is not even a very likable building. Its distinctive form is generated by shifting the building mass to the north and west as the building rises and then back again. Its exterior enclosure is entirely metal and glass.

It may be that liking it requires a new aesthetic perception. The new in art and architecture has always been difficult to accept. We may come to like buildings that look like enormous metal-and-glass sculptures. It just seems that a major building for a large city should have immediate appeal.

It was interesting to note that the next article in August was the Experience Music Project a few miles from the Central Library site. Set outside the downtown area next to an amusement park, the EMP is surprisingly consistent with its forms and colors. To think of it as context for the Central Library is nonsense. The Central Library's context should be the new City Hall that is now in design for a location a few blocks away.

—Paul Dermanis, AIA
Seattle

Letters

CORRECTIONS

RECORD would like to thank the AIA for helping to arrange interviews with the seven mayors profiled in our June feature, "The Principals of Smart Growth" [page 76]. In the July "Practice Matters" column [page 57] Lorna Parsons was incorrectly identified as Donna Parsons, and CNA/Victor O. Schinnerer & Company was incorrectly identified as CNI/Victor O. Schinnerer & Company. In the July issue [News, page 30] the image of PB6 on the lower-right corner should be credited to illustrator Steve Oles, FAIA, as well as Pei Cobb Freed. Also, the image is printed in reverse.

Letters may be E-mailed by clicking Letters on our Web site at www.architecturalrecord.com, or send letters directly to rivy@mcgraw-hill.com. RECORD may edit letters for grammar, style, and length.
Shaft for Bunshaft’s modern box and Noguchi

Two International Style buildings designed by Gordon Bunshaft of Skidmore Owings & Merrill (SOM) in the 1950s are slated for demolition in Bloomfield, Conn. Regarded as milestones of Modernism in corporate America, the structures are owned by CIGNA, which plans to redevelop the site. Although the buildings are not landmarked or protected under state or city guidelines, their proposed destruction has sparked heated community debate.

CIGNA says the buildings are now too large and costly to operate. Approximately 4,500 employees remain at the Bloomfield campus. The company has asked Bloomfield to approve a master plan, completed by Boston’s Elkus/Manfredi Architects, to rezone the 650-acre campus for 10-year phased development. CIGNA will sell most of the property to commercial developers, demolishing three of four existing buildings. In their place would be office towers, a golf course, a hotel and conference center, 160 single-family homes, and 240 apartments.

The 827,000-square-foot Wilde Building, once called Connecticut General and targeted for demolition by 2003, was a departure from masonry corporate structures of its day. A mammoth steel skeleton is sheathed in a green-glass curtain-wall skin. Complementing the towering spaces and wide corridors are sculptures and four interior courtyards by Isamu Noguchi. The courtyards will be razed, while the sculpture will be offered to developers, according to CIGNA.

The second Bunshaft-designed structure under siege, the 570,000-square-foot North Building once housed Emhart Corporation. Built in 1960, it was the architect’s first poured-concrete structure.

A local group of architects has begun campaign to Save Connecticut General. Robert Stern, FAIA, SOM principal David Childs, FAIA, and directors from the National and Connecticut Trusts for Historic Preservation are supporters.

The development’s potential infringement upon protected wetlands also has alarmed local environmentalists. CIGNA, meanwhile, dismisses the preservation outcry as complaints of architectural elitists. Community advocates for the development say it addresses needs for private housing and will generate more tax revenue and employment. The next challenge to the proposal is Bloomfield’s review of requested zoning changes this fall. William Weathersby, Jr.

Patkau wins competition with modern box

Vancouver-based Patkau Architects won a competition in June to design Montreal’s new main library, the Grande Bibliothèque du Québec (GBQ). To rise on a Palais du Commerce site in Montreal’s Quartier Latin by 2003, the government-funded, $40 million GBQ will house noncirculating holdings of the national library of Quebec and the central library of Montreal, as well as a vast collection for public loan.

The winning design, devised by husband-and-wife team John and Patricia Patkau, is for a multi-level building combining wood, copper, and granite detailing that will feature a series of inclines to draw visitors into the heart of the space. Passengers arriving from a metro station will be able to view the lower-level children’s library beyond a sunken, sunlit garden, while a ramp leads to a landing overlooking a children’s theater.

Proceeding up another slight incline, patrons encounter the main information desk. Patkau is teaming with two Quebec firms for the project, Croft-Pelletier and Gilles Guite. The team won the international competition against four other multfirm teams led by

OFFICE BUILDING BOOM

Demand for office space continues to soar in the United States. As of midyear, 1,070 office buildings, with 123 million square feet, were under construction. The following five cities led the market in office construction:

1. Washington, D.C. 11.1 million square feet
2. Boston 7.4 million square feet
3. Minneapolis 7.2 million square feet
4. Atlanta 6.5 million square feet
5. Dallas-Ft. Worth 5.1 million square feet

Source: Oncor International, Washington, D.C.
Sen. Joseph Lieberman, the Democratic vice presidential nominee, was executive assistant in design and planning to the dean of the Yale School of Art and Architecture for three school years, 1969 to 1972. He was elected to the Connecticut State Senate in 1970, but that was a part-time gig.

A pool and gymnasium by Tod Williams Billie Tsien for the Arverne/Edgemere Houses Recreation Center in the Rockaways, Queens, New York, will be complete in 2003. Richard Burney, the new head of design at the New York Housing Authority, is hiring design savvy architects, including Hanrahan Meyers Architects.

A winning design for the Martin Luther King Jr. National Memorial, to be located on the Mall in Washington, D.C., will be announced in mid-September.

The AIA Diversity Conference, scheduled for August in Chicago, was canceled due to low registration numbers. The first AIA Diversity Conference was held in 1994, but the conference failed to draw a critical mass in recent years. In the future, diversity workshops will be held in conjunction with allied organization conferences or state AIA events.

Steven Holl has been named architect for the $7.5 million Zachary Scott Theatre Center in Austin, Tex. The 500-seat theater will be complete in 2004. Holl is also competing with Jean Nouvel, Arata Isozaki, Cruz and Ortiz, and Juan Navarro Baldeweg for a Museum of Human Evolution in Burgos, Spain. Presentations to the jury will be made on September 17.

Due to AIA budget considerations, AIAnet, the newspaper of the AIA, will be published 10 times this year rather than 12. One issue was produced for July/August, and one is planned for November/December. Publishing plans for 2001 to follow.

The library addition by Schwartz/Silver Architects will be low-slung in the back of the 1883 H.H. Richardson building. Construction begins this fall on the $6 million project.

Addition to H.H. Richardson’s Ames Library wins approval after delays

After a decade-long delay, a beloved and influential 19th-century library designed by H.H. Richardson has launched a $6 million expansion and restoration program. The 1883 Ames Free Library in North Easton, Mass., a community that prides itself as the locale of five extant Richardson structures, has approved a new plan by Boston’s Schwartz/Silver Architects to more than double the Ames Free Library’s endowment. The 1883 Ames Free Library has been dedicated to the library directors — several of whom are Rhode Islanders — for their commitment to the library. The site remains well-endowed, and the library has a history of raising funds from the community.

The back of the 1883 Ames Library

Architects to more than double the facility to 25,000 square feet. Construction begins in October.

Sited to rest partially below grade discreetly behind the original building and cleaving to a hillside, the addition takes its inspiration from adjacent parcels of land acquired by the town, which contain ruins of 18th-century Italianate gardens. Meeting halls and a lecture auditorium will be articulated as stone-clad garden sheds, with new book stacks set underground to alleviate overcrowded shelves upstairs.

The building program is the result of an unusual public/private funding initiative. Although it functions as a civic building, the Ames Free Library is actually privately owned, originally commissioned by the philanthropic Ames family, who built their fortune through a local tool and shovel works during the Civil War and Gold Rush. Ames endowments covered most library maintenance and operating costs for more than a century.

Now a $1.9 million Massachusetts state grant to help renovate and expand the library has forced a complex shift in the institution’s funding, while the town has also earmarked $3.1 million toward the project. The expansion plan also had to comply with guidelines governing a $20 million private endowment supporting the library. To facilitate the project, Schwartz/Silver’s addition is mostly on public land. The library directors have opted to lease the corresponding footprint of land to the town for newly built areas that fall within the original property lines.

Potential additions have languished on the boards for decades. A proposed 1996 addition by Venturi Scott Brown proved too controversial and the architect resigned the commission. The site remained too constraining for a feasible expansion layout until the town’s recent purchase of land.

Second-phase restoration of the historic building, pending final funding, has been designed by Albert Richter & Tittmann Architects. The landscape architect, Richard Burck Associates, will integrate old and new gardens.

No, Mickey! Disney guilty of fraud for taking idea of architect, umpire

A Florida jury ruled August 11 that Walt Disney Company must pay an architect and a retired baseball umpire $240 million in damages for taking their idea to build a sports-themed park in Florida. Disney’s Wide World of Sports complex is too similar, ruled an Orlando, Fla., circuit court jury, to a concept pitched to Disney in the late 1980s by architect Edward Russell of Fonthill, Ont., and ex-umpire Nicholas Stracick of Buffalo, N.Y., and their company, All Pro Sports Camps Inc. Johnnie Cochran, Jr., represented All Pro, which had sought $2.5 billion. Disney was found guilty of fraud, fraudulent misrepresentation, misappropriation, and conspiracy to misappropriate. Disney rejected the All Pro plan in 1989 but built its Wide World of Sports complex in 1997. In 1996 a U.S district court judge had ruled against All Pro, saying plans were not “substantially similar.”

John E. Czarnecki, Assoc. AIA
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CIRCLE 16 ON INQUIRY CARD
Musical chairs: Who wants to be dean?

Nearly one in seven of the 110 accredited architecture schools in the United States will begin the school year with either a search for a dean or a new one in place. RECORD research found:

**Schools searching for a dean**

Ten schools of architecture are currently searching for a new dean. At least one school will name a dean this month, but another is beginning its second search attempt.

**Ball State University**
The College of Architecture & Planning plans to have a new dean by March 2001. The school will begin reviewing candidate credentials in November. Jeffrey Hall is the interim dean.

**The Cooper Union**
The Irwin S. Chanin School of Architecture is beginning a search and hopes to have a new dean in place by the school’s spring NAAB accreditation review. Former dean John Hejduk, FAIA, retired on June 1 and died of cancer in July.

**Drexel University**
A new dean of the College of Design Arts will be named this month. David Raizman has served as interim dean.

**New York Institute of Technology**
The School of Architecture & Design plans to name a dean as soon as possible, but it is still interviewing candidates. The interim dean is John Di Domenico.

**SUNY Buffalo**
A new dean is expected to be named for the School of Architecture & Planning by the end of the year. The interim dean is John B. Sheffer II.

**University of Arkansas**
Jeff Shannon will be interim dean for the next two school years, as a search for a dean of the School of Architecture gets under way. The former dean, Dan Bennett, FAIA, left to be dean at Auburn University.

**University of Cincinnati**
The School of Architecture & Interior Design—in the early stages of its search—is creating a list of dean candidates. Dean Jay Chatterjee, Assoc. AIA, will remain in his position until a new dean is selected.

**University of Florida**
A search for a dean of the College of Architecture has not begun. The former dean, R. Wayne Drummond, FAIA, left to be dean at University of Nebraska. The interim dean is Jay Stein.

**University of Texas at Arlington**
The second attempt at a search for a dean of the School of Architecture has begun, and the school is aiming to name a new dean by fall 2001. The school completed one search process already but did not extend an offer for the position. The interim dean is C. Lee Wright, AIA.

**University of Texas at Austin**
The School of Architecture is in the early stages of its search and has conducted a few interviews. Lawrence Speck, FAIA, resigned as dean in 1999 but will remain in that position through the next school year.

Meet the new deans

At press time, six schools had named new deans, two of whom had been deans at other schools. The University of South Florida named a director, rather than a dean, for its school (see left column).

**Auburn University**
Dan Bennett, FAIA, is the former dean of the School of Architecture at the University of Arkansas.

**Savannah College of Art & Design (SCAD)**
Crystal Weaver, ASID, is the former chair of interior design department in the college’s School of Building Arts.

**Southern University and A&M College**
Adenrele Awotona, Assoc. AIA, was interim dean of the School of Architecture this past year.

**University of Nebraska**
R. Wayne Drummond, FAIA, is the former dean at the University of Florida College of Architecture. Drummond replaces W. Cecil Steward, FAIA, who remains at the school as a professor.

**University of Washington**
Robert Mugerauer most recently taught at the University of Texas at Austin. The former dean, Jerry Finrow, FAIA, remains at the school and is on sabbatical leave until September 2001.

**Woodbury University**
Heather Kurze taught at Southern California Institute of Architecture (SCI-Arc), where she was director of undergraduate programs from 1992 to 1998. Amy Simonovski and John Czarnecki
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Chicago’s new public schools: $2.6 billion program delivered with managing architect

An expedited building-delivery system allowed Chicago Public Schools (CPS) to complete a number of projects in a short period of time, giving the city schools a new look.

Since 1996, renewal of Chicago’s 591 schools comprises 29 additions and 13 new buildings completed or under construction. The $2.6 billion program, continuing through 2003, includes new construction, additions, and renovations for more than 100 schools overall.

The impetus for the physical changes to Chicago’s schools began in 1993, when the Chicago Board of Education formed an advisory committee to set design criteria and engaged the local architectural firm DeStefano and Partners to develop prototypical components that would meet standards of economy, flexibility, adaptability, and expandability. The firm presented two configurations comprising classrooms, library, administrative space, gymnasium, and a cafeteria/multipurpose area.

Two elementary schools based on the DeStefano plans were built. In 1995 the Illinois General Assembly granted the mayor’s office authority over the CPS, which accelerated the capital-improvement campaign. The city privatized the school design and construction-management process in 1996, handing managing architect duties to DeStefano and Partners for the next four years.

This year, DeStefano and Partners opted out of the project, and OWP&P Architects, which had been overseeing the renovation of existing school buildings, was named managing architect for new construction projects.

To address issues of expedience and inclusion, DeStefano and Partners preordered steel, elevators, and kitchens, and developed a transfer package of half-completed construction documents to be handed to the architect of record for each project. A management-delivery system enabled the architects of record to stick to a project schedule of 20 to 22 months.

DeStefano and Partners design partner John Albright says, “By the time we transferred [the half-completed construction document package] to the architects of record, the building had been massed and sited, the floor plans had been configured, and construction documents were at 50 percent. All the interior finishes were non-negotiable.”

L.A. schools embark on five-year building blitz

A Los Angeles Unified School District (LAUSD) construction program promises to be a bonanza for architects. Beginning this year and continuing through 2005, the district will have 200 construction projects under way, at a projected cost of $1.2–1.9 billion. The 200 projects comprise many new buildings, including 72 elementary schools, 9 middle schools, 16 high schools, and 4 continuation transitional schools. The five-year construction program is the first portion of the district’s 10-year goal of an estimated $9 billion worth of building projects.

The district has completed a request for qualifications (RFQ) process for architecture firm selection and intends to award at least one school project to each of the short-listed firms this school year. Ten firms have been short-listed for middle- and high-school design contracts and 59 for elementary schools. Another RFQ process will be held to select more firms for middle and high schools.

“In the past, certain firms did most of the work for the district,” says Marvin Taff, a former partner at Gensler and a design consultant to the LAUSD. “Now we’re trying to make sure we simply select the very best architects.” Taff promises “no cookie-cutter schools.”

“The designs have to reflect our desire to reform instruction,” says Jackie Barham, the LAUSD official responsible for articulating the district’s educational needs.

For example, besides classrooms, inner-city schools will have learning areas to cater to the child’s “instructional family,” which includes teachers, tutors, and family members. Schools near medical centers will have research laboratories.

Because the district failed to secure new sites during the last two decades, nearly one-fourth of the new schools will be carved out of existing noneducational structures. Sites under consideration include a former aircraft factory and an office building housing the Department of Water and Power.

A school designed for an expanding curriculum and adaptive reuse is Morphosis’ addition to, and reconfiguration of, the 1912 Armory building in Exposition Park. Beginning in fall 2001, a K–5 elementary school will share this 196,000-square-foot facility with the Center for Science Learning.

David Hay
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CIRCLE 18 ON INQUIRY CARD
**Record News**

**Mies van der Rohe Prize awarded to State Pinoteca, a museum by Mendes da Rocha**

Established in 1988, the prize is sponsored by the Mies van der Rohe Foundation in Barcelona, which promotes cultural interchange between Europe and Latin America. The foundation has its ceremonial headquarters in the reconstructed Barcelona Pavilion and is backed by the city of Barcelona and other local and Spanish institutions.

Mendes da Rocha's design is a free and contemporary adaptation of a century-old school in São Paulo's historic center, in which original patios are roofed in glass and high catwalks bridge vaulted spaces. Born in 1928, Mendes da Rocha designed the Brazilian Museum of Sculpture in São Paulo (1995) and the Serra Dourada Stadium in Goiânia, Brazil (1975).

The other five finalists for the prize were a beach house in Lima, Peru, by Alexia León; the Reuter House in Cachagua, Chile, by Mathias Klotz; a union vacation resort in Ytú, Paraguay, by José Luis Ayala, Alberto Marinoni, and Solano Benítez; the Manantiales Building in Santiago, Chile, by Luis Izquierdo, Antonia Lehmann, José Domingo, and Raimundo Lira; and the School of Social Sciences at the National University of Colombia in Bogotá by Rogelio Salmona.

Ricardo Legorreta chaired the jury that included Terence Riley of the Museum of Modern Art in New York and architects Dominique Perrault of France, João Luis Carrilho da Graça of Portugal, Silvia Arango of Colombia, Enrique Browne of Chile, Hugo Segawa of Brazil, Jorge Silvetti of Boston, and Ignasi de Solá-Morales of Spain. The award will be presented in a ceremony at the Barcelona Pavilion later this year.

*David Cohn*

**Landmark show of Barragán’s work at Vitra in Weil am Rhein**

Thorough and lively, the new landmark show on Mexican architect Luis Barragán (1902–1988) marks the culmination of a major Vitra Design Museum initiative that began with the acquisition of the Barragán archive in 1994. *Luis Barragán: The Quiet Revolution* continues at the Frank Gehry–designed museum in Weil am Rhein, Germany, through October 29.

Visitors to the exhibit encounter vividly painted walls and a photographic portrait of Barragán, video presentations of his work, and three robes designed by Barragán for Roman Catholic priests.

Blueprints explain the evolution of projects including the Casa Gilardi with its interior pool.

Numerous photographs depict 1920s houses in the Jalisco province of Mexico and large-scale projects in and near Mexico City. Items providing more personal insights include the architect’s riding crop, his dramatic sketches of horses, early working drawings of seesaws and swings, and original copies of *ARCHITECTURAL RECORD* (September 1931, January 1935, and April 1937)—the very first publication of Barragán’s achievements.

Videos follow the labyrinthine character of interiors, gardens, and chapel at Tlalpan. Upstairs, and somewhat lost, are large-scale models of urban plans from the 1970s and many color images of the sculptural towers at Ciudad Satélite. Designed by Bruce Mau, this exhibition is extraordinarily ambitious. Surely it deserves more space. Beginning in November, the exhibition travels to Vienna, London, Rotterdam, and Tokyo, and shows in North and South America are planned. An accompanying book is forthcoming in October.

*Raymund Ryan*

*Photography: A. Vitra (bottom)*

*Images of the sculptural towers at Ciudad Satélite are included in the exhibit *Luis Barragán: The Quiet Revolution.*

*Photography: Courtesy of the Vitra Design Museum*
The right door can make any place more inviting.
African burial ground on hold

After nearly a decade of controversy, a team led by IDI Construction Company was named this spring by the Government Services Administration (GSA) as the competition winner to design and build an interpretive center for an African burial ground in lower Manhattan. The team completed a design, but a number of snags are delaying the project.

The site was active in the 18th century as a burial ground for as many as 20,000 Africans, some of whose remains were discovered in 1991 during construction of the 34-story Foley Courthouse by HOK. When well-preserved human remains were unearthed, opposition to construction grew. The GSA agreed in 1992 to stop construction on a portion of the burial ground and appropriate funding for analysis, and eventual reinterment, of approximately 400 human remains. The site, considered one of the nation's most important colonial-era archaeological discoveries, is now a city historic district and a National Historic Landmark. The Foley Courthouse was completed in the mid-1990s.

Out of a $21 million GSA commitment to the burial ground for scientific research, public education, and memorialization, $1.6 million has been allocated to the interpretive center, which will be located inside the Foley Courthouse.

A multi-disciplinary team of New York–based designers, curators, and researchers—including architects Jacqueline Hamilton, Paula Griffith, Atim Annette Oton, and Jasper Whyte—won the competition. Many on the team are of African descent. "It was meant to be a competition that sought out fresh new faces and ideas, and that's what this team stands for," says Peggy King-Jorde, the GSA consultant who administered the competition. "There's a real spirit in this culturally diverse group."

The preliminary design for the 2,000-square-foot interior space, which overlooks the burial ground, is divided into four areas that will feature multimedia exhibits to reflect the traditional African perception of the four stages of life—birth, maturity, death, and rebirth. In the final space, a simple "altar" invokes the sacredness of the burial ground, which will be visible through a large window. An exit leads into a portion of the burial ground left intact, where a memorial will be constructed.

Although IDI has completed design work, the interpretive center is now on hold until the completion of a final scientific report on the excavated burials from the Cobb Laboratory at Howard University. That research is halted due to contract and budget disagreements. Andrew Blum

Development may create L.A.'s Times Square West

If the owners of the Staples Center sports arena have their way, the southwestern end of downtown Los Angeles will become "Times Square West." Currently, the blocks surrounding the Staples Center and the Los Angeles Convention Center are desolate and unwelcoming. But the proposed L.A. Sports and Entertainment District, a two-stage, 3.7-million-square-foot development, could change that.

To be completed by 2004, the first stage includes a much-needed 40-story, 1,200-room hotel, a 5,000-seat theater, and a retail/restaurant complex. The second stage of the development, to be completed by 2010, includes 800 units of housing and an additional hotel east of the Staples Center.

"The linchpin of the entire development is the ability to build the hotel adjacent to the convention center," says Timothy Leiweke, president of the L.A. Arena Land Co. The plan, which requires public subsidies and city approval, has been criticized by Los Angeles City Council members because backers include Rupert Murdoch and Denver railroad magnate Phil Anschutz. Advocates for downtown Los Angeles revitalization are concerned about the inward-appearing proposed design. Carol Schatze, of the Central City Association, says, "We don't want downtown to be a series of closed mini-villages." David Hay
A high-tech firm turns corporate “city” in this Doc Award-winning design. An atrium with three-story precast panels defines “main street,” leading to “neighborhoods” in other areas. Over-scaled carpet patterns with Ultron® VIP play against wall colors in this creative space.

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Record News

WWII Memorial redesigned, on track for construction

Friedrich St. Florian’s revisions to the proposed World War II Memorial have satisfied Washington’s Commission of Fine Arts, which voted unanimous 6-0 approval of the resubmitted design on July 20. The National Capital Planning Commission, which usually follows the lead of the Commission of Fine Arts, must approve the plan. That approval is expected September 7. Groundbreaking would take place November 11, Veterans’ Day, with completion scheduled for Memorial Day, 2003.

Although the memorial design was approved, the Commission of Fine Arts meeting drew an unusually large crowd; witnesses speaking against the design outnumbered supporters in five hours of testimony.

St. Florian’s scheme has faced an uphill struggle since he was awarded the commission through a national design competition in 1997, two years after the memorial’s location was approved. The Commission of Fine Arts rejected the initial design. Opponents criticized the location on the axis of the National Mall, and the size and imagery, which they claimed evoked imagery of the imperial architecture of Nazi Germany.

The current scheme has shed all interior programmed spaces, including exhibition halls. Sunken six feet below street level, it features a pared-down exterior sculptural plaza surrounding the Rainbow Pool. Two pavilions commemorating the Atlantic and Pacific war theaters mark the central plaza’s north-south axis. Openings in the pavilions and arches make the design more transparent than previous schemes. The central plaza is ringed by 56 granite pillars (one for each state and territory at the time of war) hung with bronze wreaths. An entrance plaza leads to the memorial from 17th Street NW to the east. A central sculpture has yet to be designed.

Reductions in the memorial’s scale ensure that substantial tree growth around the area will be preserved. St. Florian has also accommodated those who felt the memorial was obstructive to the Mall’s visual axis between the Lincoln Memorial and Washington Monument. The American Battle Monuments Commission has already raised most of the projected $100 million construction cost.

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CIRCLE 21 ON INQUIRY CARD
Spanish architect Saenz de Oiza dead at 81. Francisco Javier Saenz de Oiza, one of the founding fathers of contemporary Spanish architecture, died of cancer on July 18 at age 81. A bold innovator and a charismatic teacher, Saenz de Oiza inspired generations of Spanish architects with his restless avant-garde spirit of experiment and speculation.

Saenz de Oiza's constant experimentation resulted in a radically eclectic body of work. Over the course of a 50-year career, he designed buildings that Rafael Moneo, his most famous pupil, considers among "the most important of the 20th century."

Saenz de Oiza led the post–World War II reintroduction of Modernism to Spain with the Basilica of Aranzazu and the rationalist Entrevias public housing in Madrid, both in 1956. His 1968 Torres Blancas apartments in Madrid featured textured concrete cast in cantilevered cylindrical forms. Kenneth Frampton called Saenz de Oiza's 1981 Bilbao Bank in Madrid one of the most elegant towers of the 20th century, with floors suspended from the central core and a sophisticated skin of glass and Corten steel. In later works, such as the 1987 Festival Palace of Santander, Saenz de Oiza championed a rugged Postmodernism.

Saenz de Oiza, director of the School of Architecture of Madrid in the early 1980s, designed the Spanish Embassy in Brussels.

Saenz de Oiza leaves his studio to the four architects among his seven children. His ashes will be buried near his summer house in Majorca. David Cohn

AIA diversity leader Walter Blackburn, FAIA, dies

Indianapolis architect Walter Blackburn, FAIA, a national leader on diversity issues, died of cancer on August 9 at age 62. A native of Indianapolis, Blackburn graduated from Howard University in 1963. He was president of Blackburn Architects and a prominent civic leader in Indianapolis.

Blackburn was instrumental in raising awareness of diversity issues at the national level of the American Institute of Architects (AIA) in the 1990s. He spearheaded the formation of the AIA Diversity Committee, leading to subsequent AIA Diversity Conferences. He was elected AIA national vice president in 1994. Thanks to Blackburn's efforts to promote diversity, the AIA became more welcoming to all. "People who had never felt at home in the organization now found they had a place to gather," says Marga Rose Hancock, Hon. AIA, executive vice president of AIA Seattle.

Blackburn designed the National Underground Railroad Freedom Center, currently under construction in Cincinnati.
Hadrian Predock and John Frane win museum job
Predock_Fran Architects, based in Venice, Calif., has won a competition to design a $17 million Central California History Museum in Fresno. Predock_Fran Architects is a partnership of Hadrian Predock, AIA, son of Antoine Predock, FAIA, and John Frane.

The winning scheme features multiple layering, with a grid of columns, layers of glass, trellis sunshades, and clusters of cherry trees.

"It's the most important project in our lives," Predock told the Fresno Bee. "We're going to be so committed to it. It's our number one priority."

Central California History Museum

Building Big Ever wonder exactly how the great structures of the world were built? If so, you may want to watch the five-part PBS series Building Big, airing five consecutive Tuesday evenings beginning October 3. Series host and narrator is David Macauley, author-illustrator of The Way Things Work: Each episode will focus on a different structure type: bridges, domes, skyscrapers, dams, and tunnels. Program highlights include the Brooklyn Bridge, the Pantheon, the Chrysler Building, Hagia Sophia, and Boston's Big Dig. The series will answer burning questions such as: How does a dam resist the crush of million of gallons of water?

Safdie's Telfair proceeds An addition to the Telfair Museum of Art in Savannah, Ga., designed by Moshe Safdie, FAIA, received approval from the city's historic review board on July 12. The 40,000-square-foot, three-story building was originally budgeted for $15.5 million, but the cost is expected to grow after two years of delays.

Safdie's design had been met with public debate and opposition from Savannah preservation groups. Safdie modified his design accordingly. The building will have an African-American art gallery, an outdoor sculpture garden, an auditorium, gift shop, and offices. Construction is expected to begin later this year.

Telfair Museum by Safdie

Down to two for Blanton After presentations by six firms for the Jack S. Blanton Museum of Art project at the University of Texas at Austin, the museum's architectural advisory committee narrowed the field to two on August 21: Kallmann McKinnell & Wood Architects of Boston and Michael Graves & Associates of Princeton, N.J. The Regents' Facilities Planning and Construction Committee will make a final decision in early October.

D.C.-area airports expand Both Washington Dulles International Airport and Baltimore-Washington International (BWI) Airport are planning ambitious expansion programs.

Only one year after a $1 billion expansion was completed, a $3.4 billion six-year expansion has been approved for Washington Dulles International Airport. BWI, the second-fastest growing airport in the country, announced a ten-year, $1.3 billion expansion plan August 9.

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Sept. 25 - Read the 1905 Record article assessing architect Frank Lloyd Wright's work up to that time.

Wednesdays: New 'Green' features in Green Architect
Sept. 13 - DEP Headquarters in PA built on a brownfield with environmentally sensitive materials.

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Atlantic Journey – Logan Airport

Boston, Massachusetts

Architect
Cambridge Seven Associates
Cambridge, MA

Designer / Artist
Jane Goldman
Somerville, MA

Come and take an “Atlantic Journey” at Logan Airport in Boston, Massachusetts. Artist Jane Goldman created this undersea adventure in response to a contest held by the Owner, MassPort invited artists to submit floor designs for a pair of pedestrian walkways. Contest participants were given the option to design in either Terrazzo or Ceramic Tile. Ms. Goldman chose Terrazzo because her vision of realistic-looking sea creatures did not lend itself to tile. Travelers have the impression of gliding along in a glass-bottomed boat as they are transported along moving sidewalks past 44 different species of Atlantic marine life. The scene is a welcome diversion for weary travelers young and old alike.

National Terrazzo & Mosaic Association 1999 Honor Award

Broadway State Office Building

Los Angeles, California

Architect
Johnson Fain Partners / Nadel Architects
Los Angeles, CA

Designer / Artist
Johnson Fain Partners / Nadel Architects
Los Angeles, CA

This Epoxy Terrazzo project was the renovation of an old State of California office building. The new terrazzo was installed over the old marble floor, with the colors and shapes designed to mimic the old marble floor. The terrazzo was installed without shutting down the building, so most of the work took place at night.
National Terrazzo & Mosaic Association 1999 Honor Award

Corradini Corporation Headquarters  Los Angeles, California

Architect
Calvin Smith & Associates
Laguna Beach, CA

Designer / Artist
Calvin Smith & Associates
Laguna Beach, CA

The entry of this building has a large black and red checkerboard floor, similar to many found in Italy. A serpentine design borders all corridors, which are accented by black diamonds every 10 feet. The central area of the building has a floral design, with large brass inlays, that was copied from a floor in Pompeii. The subtle colors are cement terrazzo, while the more vibrant colors were made with epoxy terrazzo. This project is truly a showpiece for a terrazzo contractor's headquarters.

National Terrazzo & Mosaic Association 1999 Honor Award

DuPage County Veteran's Memorial  Wheaton, Illinois

Architect
Wight & Company
Downers Grove, IL

This project is a bonded rustic terrazzo design in 5 colors, installed as the base of a Veterans Memorial. Brass and white metal were used in the strip design work. The inner circle of the design was ground and polished, with the outer circle remaining rustic terrazzo. The logo (design) work had to be laid exactly, so the Gnomon (sun dial) would accurately indicate not only the time, but hours until sunset, the day and the month.
Carmel Library’s epoxy terrazzo flooring, according to many, is “A beautiful functional work of art.” This job has very ornate terrazzo vine & leaf design “growing” throughout the main lobby. The terrazzo floor is complimented by a large precast terrazzo tread and riser monumental stairway. At all locations where terrazzo flooring was installed, a cast in place 6” high cove terrazzo base was installed for ease of maintenance.
National Terrazzo & Mosaic Association
1999 Honor Award

Hill Hall – Colorado School of Mines
Golden, Colorado

Architect
RNL Design
Denver, CO

Designer / Artist
Carolyn Braaksma / David Griggs
Denver, CO

"Alchemy Works" is a Colorado Percent for Art Project integrated into the construction of Hill Hall, Metallurgy Department at the Colorado School of Mines in Golden, Colorado. The design was enhanced by art treatment of the main floor, interior columns with terrazzo cove base, precast concrete accents at the building entries and facade, atrium window, and entrance plaza. Eleven different colors of matrix were used, separated by varied brass and zinc stripping, to "create designs based on the science of metallurgy." The floor patterns are derived from microscopic views of metal crystalline structures and diagrams of metallurgical processes. One quarter inch thick brass alchemy symbols are scattered across the floor to denote modern metallurgy as the foundation in ancient alchemy. School of Ames students created brass and zinc stripping metallurgy symbols that were placed in select areas of the floor.

National Terrazzo & Mosaic Association
1999 Honor Award

Northside Hospital Women’s Center Addition
Atlanta, Georgia

Architect / Designer
Howell Rusnok Dodson Architects
Atlanta, GA

The women’s hospital addition has an epoxy terrazzo floor installed in the entrance atrium and waiting area. The pattern is a free form design utilizing four colors. The Architect/Designer’s comments follow: "I wanted to use terrazzo for several reasons. The free form design pattern in the floor was quite intricate, and this allowed me to fulfill the expressive free flowing lotus blossom symbol of the building. I was also able to develop my own colors through quite a number of test samples to match the color scheme of the rest of the finishes. Lastly it provided the 'cornerstone' to permanently place the symbols I designed for the facility into the structure for the life of the building. In addition, the quality of the craftsmanship displayed on the job was that of days gone by. It is a rarity these days to find workmen that put that effort into their trade and are proud of it."
National Terrazzo & Mosaic Association 1999 Honor Award

Savoie Residence Bloomfield Hills, Michigan

Designer / Artist
Sally Savoie
Bloomfield Hills, MI

This rustic terrazzo patio installation was installed on a compacted stone fill in a 5" overall system. The surface was retarded, then pressure washed the following day to reveal the rustic surface. In lieu of expansion joints, 1/4" saw cuts were made at strategic locations a short time after the installation. The surface was then washed and two coats of sealer applied. The owner/designer wanted rustic terrazzo which gave the ability to form curves, create continuous rustic terrazzo treads and risers, and the desired non-slip surface. Also the warm earth tones of the dogwood pink granite complimented the existing colors of the surroundings.

National Terrazzo & Mosaic Association 1999 Honor Award

Swaminarayan Temple - I.S.S.O. of Chicago Wheeling, Illinois

Architect
P.G. Engineering
Chicago, IL

It was obvious that terrazzo was the product best suited for use in this beautiful prayer room. The fact that custom colors could be produced was a significant factor in the selection of epoxy terrazzo. Prefabricated brass strip designs were utilized to create the six attractive feature logos in the floor.
Union Station  Worcester, Massachusetts

**Architect**

Finegold, Alexander, & Associates, Boston, MA

Union Station sat like a white elephant in the city of Worcester, Massachusetts. Built in 1911 and abandoned since 1974, the 90,000-sq. ft. train station was home to a flock of pigeons and a pile of rubble when, in 1997, the Worcester Redevelopment Authority decided to restore the building to its former glory. With an emphasis on historical preservation and restoration, and using several old photos as their guide, architects recreated Union Station in its heyday.

Because the existing Terrazzo floor was badly damaged, architects chose to install a new 3/8" Epoxy Terrazzo to match the original 3-color design, rather than attempt repair. Terrazzo was installed throughout the building, including the Grand Hall, Rotunda, and Main Waiting Area. The rose-colored field complements the restored Terra Cotta walls, and the embedded radial pattern leading to the Precast Terrazzo stairs echoes the radius of the Rotunda. The new and improved Union Station will be home to Commuter Rail, Amtrak, city buses, shuttles, and taxis and is expected to reinvigorate the surrounding retail area.

Villa Christina Restaurant  Atlanta, Georgia

**Architect**

Schneider Wright, Inc.
Atlanta, GA

A five color curvilinear epoxy terrazzo design is used for the lobby and aisles. Glass chips and epoxy matrix produce deep rich features for this upscale restaurant. This is what the project Architect had to say: "The management of Villa Christina wanted to replace the original hand-painted concrete floor with a low-maintenance flooring that would rival the unique character of the original floor and compliment the colorfully artistic design of the restaurant. Critical to the decision to use terrazzo were the ease of cleaning and longevity terrazzo floors have always been known for. Ultimately, terrazzo was selected for the unlimited palette of color and texture combinations, and the ability to naturally blend free form curvilinear shapes into the design—a uniqueness difficult to achieve with most other single flooring materials."
National Terrazzo & Mosaic Association 1999 Honor Award

Plaza Las Americas    San Juan, Puerto Rico

SPECIAL ART AWARD

Architect
RTKL Associates, Inc.
Washington, DC

Designers / Artists
Myrna Baez
Marta Perez Garcia
Nick Quijano

The Owner commissioned three published Puerto Rican artists to paint culturally significant pieces that were to be used in the renovation of this upscale mall. Terrazzo was selected for its versatility of shapes and colors. The Owner recognized that if these works of art were to be "brought to life," it could only be done with terrazzo materials and by terrazzo artists.

National Terrazzo & Mosaic Association 1999 Honor Award

Virginia Beach Higher Education Center    Virginia Beach, Virginia

Architect
Moseley Harris & McClintock
Virginia Beach, VA

Epoxy terrazzo was selected for this Old Dominion University satellite facility because of its design flexibility, attractiveness, durability, and ease of maintenance. The beautifully proportioned terrazzo layout encompasses four colors, chosen to complement the exterior masonry and stone work as well as the interior woodworking. One of the colors was designed specifically to match the Old Dominion University "blue" school color. In addition to the flooring, this outstanding use of terrazzo also includes precast stair treads, risers, stringers and wall cap. The overall terrazzo design provides a sense of charm and distinction to the atrium and adjoining areas.
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High design without High-Tech: A new generation of Brits delivers antidotes to the High-Tech stars

Correspondent’s File

By Laura Iloniemi

This is the time for talented young British architects to shine—even if they are not High-Tech stars. Savvy young architects, who were forced to find creative means to stay in practice during the recession of the early 1990s, are benefiting from a steady flow of funds for cultural projects and from the residual hype surrounding the High-Tech star architects.

The architectural scene in Britain has enjoyed a boom since the establishment of the country’s national lottery in 1994. Since then, a plethora of funds has become available for cultural projects. The Arts Council, a British arts policy body, vetted proposals and selected the worthiest for financial backing. Some companies began specializing in putting together convincing lottery funding applications, and cities, towns, and counties of all sizes have planned or built new museums, exhibition centers, theaters, concert halls, visitor gateways, and sports facilities. To attract the general public, clients often emphasized the importance of easily recognizable architecture. As a result, architects in the 1990s too often sought the postcard effect of the Sydney Opera House.

The High-Tech architects, including Norman Foster and Richard Rogers, have won many competitions for high-profile lottery-funded landmark projects. Foster’s wins include Wembley Stadium, the Great Court at the British Museum [AUGUST 2000, page 30], and the Millennium Bridge [AUGUST 2000, page 28]. And Rogers’ practice designed the most prominent lottery-funded project of all, the Millennium Dome.

Laura Iloniemi is an architectural writer based in London. She studied the history and philosophy of architecture at Cambridge.

Antidote to High-Tech

British clients have become more design conscious and are selecting talented young architects for projects that, while relatively small, have enabled practices to show off their design skills. The Walsall Art Gallery by Caruso St. John is an exemplary lottery-funded project of this kind. Located near Birmingham, the gallery represents an unusually mature approach for a practice’s first major commission. The silver-gray terra-cotta-shingled structure, with the gravitas of a civic building, is a contrast to the immediacy and transparency common to High-Tech.

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public space, sheltered under the horizontal reading room that cantilevers from a five-story block. Inside, the reading room is composed of a double-height space dominated by three timber-clad pods on stilts that house meeting rooms and additional reading areas. Floor-to-ceiling colored glass panels bathe the children’s library room in multicolored light, making the building inherently friendly. Not surprisingly, the library is a magnet for local residents.

**Market stalls serve Hackney**
In the London borough of Hackney, in the northeast corner of the city, similar steps have been taken toward urban regeneration. Hackney has Britain’s largest population of artists, and comparisons to New York’s SoHo have been frequent, due to similar loft spaces available in Hackney’s vacated warehouses and industrial buildings. The modest-size Hackney Market Stalls by Hawkins Brown Architects is ingenious in its ability to enhance the urban fabric in an ethnically and economically diverse neighborhood. The project, a row of 10 stalls used for selling goods such as handicrafts, is housed in prefabricated steel pods with adjacent studio space. The project was conceived from within its context—Hawkins Brown is based in Hackney and the firm works closely with the local council.

The growing number of architects seeking to collaborate with local authorities, usually with limited budgets, is a direct result of the hard-hitting recession of the early 1990s. A lack of work and resources at that time forced architects to be very imaginative in how they could contribute to the built environment. They learned to make something out of nothing. Therefore, what is perhaps most exciting about the variety of British work is not only design, but also approach to practice and procurement methods. During the recession, the younger generation of architects learned the necessary entrepreneurial skills for acquiring funding for projects and for promoting themselves to local authorities, developers, and other private clients. This enabled the younger generation to introduce good design into places around Britain where it otherwise did not exist or was not prevalent: the public spaces of small urban communities, car parks, bus sheds, modest-size offices and other commercial spaces like shops, bars, and hair salons.

**WHAT IS PERHAPS MOST EXCITING ABOUT THE VARIETY OF BRITISH WORK IS NOT ONLY DESIGN, BUT ALSO APPROACH TO PRACTICE AND PROCUREMENT METHODS.**

Howarth Tompkins’ refurbishment of the Royal Court Theatre in Sloane Square, Chelsea. The project is fascinating in the way Howarth Tompkins has carefully retained and exposed selected elements of the existing, badly deteriorated Victorian building, which is protected as a historic structure. The two theater spaces, entrance hall, corridors, lift shaft, underground restaurant, and administrative spaces each have their own visual language expressed in a rich palette of materials distinguishing them as parts of a whole. Even the back-of-house extension is clad in three carefully selected materials: red-

A creative use of materials highlights the exterior and interior renovation of the Royal Court Theatre in Sloane Square, Chelsea (above). Select elements of the original building were retained and exposed, and new materials include repainted steel, cedar wood, and Cor-Ten mesh. The Hackney Market Stalls by Hawkins Brown Architects, housed in prefabricated steel pods, engage the neighborhood (left).
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Correspondent’s File

Painted steel, cedar wood, and Cor-Ten mesh.

Post-recession, British cities are still benefiting from a frugal outside-the-box approach. For example, Birds Portchmouth Russum Architects has designed an imaginative footbridge in London’s eastern borough of Newham. The bridge connects two girls’ school buildings across a busy main road. The solution had to be economical, so the architects opted for a structure of steel hoops with fabric stretched over them—similar to a covered wagon. The Newham footbridge is a good example of how careful insertions within a streetscape can be an effective means to uplift an area.

The best of the young architects are focusing increasingly on how pieces contribute to the overall built environment rather than on individual buildings alone. The result is a more cohesive urban landscape with modern, but not necessarily High-Tech, interventions in London and throughout Britain. As the younger firms gain recognition and obtain more prominent commissions, new British architecture will soon not be so singularly equated with High-Tech.

Additions and renovations to London museums debut

When it comes to art museums in London, you’d be forgiven for thinking that the new Tate Modern by Herzog and de Meuron is the only show in town. This year, however, has seen the completion of several other important cultural projects in the capital.

The cognoscenti prefer to ignore the new Tate and its crowds, and head instead for the transformed National Portrait Gallery (NPG), tucked away behind the better-known National Gallery on Trafalgar Square. This cluttered and somewhat eccentric collection of portraits of Britain’s great and good, from Tudor times onward, has now been given a new heart by architects Sir Jeremy Dixon and Edward Jones. After the 17-year saga of their remaking of the Royal Opera House in Covent Garden, which opened in late 1999, Dixon and Jones received the commission from NPG for an exemplary, lower-key project. They have not disappointed. A three-story-tall lobby, in which to be a concealed light well, has a long escalator that ascends to a new Tudor Gallery. Another new gallery devoted to late-20th-century portraits is suspended by steel hangers in the space beneath and opens to the atrium by means of angled sections of side wall that provide hanging space and solar control.

Dixon and Jones also had a hand in the revamped Somerset House, the Georgian palace of civil servants built by Sir William Chambers on the north bank of the Thames by Waterloo Bridge. This has long been a hidden gem, despite the existence of the Courtauld Gallery and Institute in its northern ranges. Its great courtyard, in recent years used as a parking lot, has been restored by conservation specialists Donald Insall Associates. Dixon and Jones designed a cascade of computer-controlled fountains in the courtyard and a lightweight summer cafe on the restored Embankment Terrace. The cafe is an open-air, demountable structure on a timber plinth, with an umbrella-style, tensile fabric roof canopy on steel columns. The southern ranges of this sprawling complex now contain the sporadically kitsch Gilbert Collection of precious artifacts, previously in California, in a fine contemporary installation by architects Peter Inskip and Peter Jenkins.

Elsewhere, Oregon-born, London-based architect Rick Mather has been busy on two of the capital’s best-loved and most historically sensitive small collections. Sir John Soane’s exquisite Dulwich Picture Gallery in the southern suburbs, the first purpose-built public art museum in the world, has been subtly restored and given new facilities, including cafe and lecture hall, in an understated Modern glass-and-steel front courtyard extension by Mather that leaves the original building visually untouched. In the center of town, Mather’s task was similarly to extend the Wallace Collection on Manchester Square by glazing over the courtyard of this landlocked, formerly aristocratic town house and excavating four new galleries and a small lecture hall beneath it. You’ll enjoy the Wallace’s new courtyard cafe, but you may wonder at the relative clumsiness of its roof. Mather, known for his delicacy of touch, must have lost a battle with the accountants there. Hugh Pearman
Never underestimate the enemy
(Or, what to do when the IRS comes a-knockin’)

Practice Matters

By Mark E. Battersby

If you receive a call from the IRS this month, don’t be surprised. Traditionally, in August the Internal Revenue Service (IRS) begins selecting those tax returns from the previous year which will be audited during the next 12 months. While the IRS’ annual report reveals that less than 2 percent of individual tax returns are targeted for an audit, this rate is doubled for business owners (i.e., how they avoid reporting).

While many architectural practices do business as Qualified Personal Service Corporations, defined by the tax code as “any corporation substantially all of the activities of which involve the performance of services in the fields of health, law, engineering, architecture, accounting, actuarial science, performing arts, or consulting.” Qualified Personal Service Corporations are permitted by the code to use the cash receipts and disbursements method of accounting. This means that, as a general rule, income is counted only when it is received but expenses are deducted when they are paid. This is a great advantage for any firm with a high level of accounts receivable. For accurate financial-reporting purposes, many firms keep their books on the accrual basis, by which income is included as billed and expenses are deductible when incurred. Such firms will then make year-end adjusting journal entries to bring them back to the cash basis for tax purposes by eliminating accounts receivable and accounts payable. Use of this dual method is perfectly legal but can be complicated. If errors are made in the translation from accrual to cash, a firm’s return may be vulnerable to audit challenge.

If selected, a firm must show its books and records to the IRS, either at the place of business (a field audit) or at an IRS office (office audit). The IRS admits the audit process can average 44 weeks. “In theory, the objective of the IRS and its auditors is to conduct an audit with a minimum of effort and disruption,” says Alan J. Preis, a Certified Public Accountant who works in Florham Park, N.J. “In many instances, an audit requires as little as one or two days and results in no assessment.”

Many sole practitioners and owners of small firms may decide to represent themselves at an IRS examination. They should be aware that, at any time during the audit, they may suspend the process by requesting the right to seek outside assistance and consult with a representative—be it a tax attorney, CPA, or the professional who prepared your practice’s returns.

In the majority of audits, disputes arise not so much over interpretation of the tax law, but rather over which deductions can be documented. The IRS is aware, thanks to that MSSP study, that most architects keep complete records of their projects so that they are prepared in the event of litigation. More important, the IRS also knows that architects must carefully track the status and profitability of each job to make good business decisions. Thus, if an IRS examiner discovers missing or incomplete job files when it comes time to substantiate deductions, the MSSP report suggests that this is a strong indication of possible unreported income.

As a result of the MSSP study, the IRS knows how an architecture practice should work, what its tax year should be, which accounting method it should use, and even where to look for unreported income. Because the IRS is so savvy, it is important to select an appropriate tax professional. Preis suggests that architects approach the process of hiring an accountant as methodically as most clients select their architects. Interview extensively and try to find someone who understands the business of architecture and already has other clients in the profession. The best method for reducing the risk of audits, however, is also the most obvious—be honest. Don’t underestimate the enemy. The IRS doesn’t just know about accounting. It also knows about architecture.
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Critique

By Richard Longstreth

No period in American architecture encompassed more sweeping changes, possessed a greater sense of dynamism, and approached the diversity of views and expression than the post–World War II era. During the period between the mid-1940s and the early 1960s, the United States enjoyed world leadership in what was then simply referred to as modern architecture. This was a significant change for a country that previously had persisted in embracing eclecticism and Art Deco rather than the radical agendas of the avant-garde.

This rich legacy is in trouble. For many years it was taken for granted. Much of it was later vilified, and most of it is now largely forgotten. Changing taste, new programmatic needs, improved systems, demands for more intense land use, and a host of other factors are placing many significant examples of postwar architecture at risk, and embarrassingly little is being done about it.

False sense of security
To a certain degree, a false sense of security exists because the most famous work of the mid-20th century appears to be safe. Skidmore,

Richard Longstreth is professor of American civilization and director of the Graduate Program in Historic Preservation at George Washington University, Washington, D.C. He just completed a two-year term as president of the Society of Architectural Historians.

Owings & Merrill’s Lever House in New York City and the Inland Steel Building in Chicago are protected by landmark ordinances, as are Ludwig Mies van der Rohe’s Seagram Building in New York City and Lake Shore Drive apartments in Chicago. Frank Lloyd Wright’s Marin County Civic Center in California is a National Historic Landmark, Richard Neutra’s Kaufmann House in Palm Springs, Calif., has been lovingly restored by its new owners, and Philip Johnson’s compound in New Canaan, Conn., will become a museum. Time after time in recent years threats to well-known and widely admired modern symbols of the postwar era have been met by onsloughts of protest and, for the most part, unsuccessful resolution.

Eccentric indulges in kitsch
When one looks beyond the rarified world of the most famous examples, the situation is very different.

Take the work of Bruce Goff, for example. As David De Long’s meticulous research has shown, Goff ranks among the most original American modernists of the century and one of the few followers of Wright to develop his ideas in significantly new directions. But in many circles Goff remains cast as an eccentric who indulged in kitsch, designing peculiar houses in remote heartland towns. Little notice was taken when the 1956 Joe Price House near Bartlesville, Okla., one of Goff’s greatest designs and one of the most extraordinary dwellings of the period, burned several years ago in a fire of suspicious origin. What will become of other Goff houses, lesser known and unappreciated except by a small band of devotees?

Several books and a major exhibition have failed to sufficiently broaden the public or professional consciousness to expect much to Eduardo Catalano, William Wurster, John Johansen, Raphael Soriano, Fred Keck, O’Neil Ford, Paul Thiry, Charles Goodman, Paul Rudolph, Carl Koch, and Ralph Rapson.

Building types reshaped
Modern houses are a particularly fragile resource. Often they sit on land that has become very expensive; they are out of the public view and are too frequently appreciated by new owners more as real estate than for their historic value. But buildings experienced by hundreds, even thousands, of people daily are no less vulnerable. The pioneering designs of Morris Ketchum and Victor Gruen, who
Critique

marshaled Modernist ideas to redefine local retail centers as regional shopping centers, have been completely marginalized, although they were heralded as major accomplishments by the architectural press in their day. Forgotten, too, has been the seminal work of Ernest Kump in reconceptualizing the public school as an informal assemblage of pavilions and open space. Journalists, practitioners, educators, and many others have become so infatuated with formalist critique that many tend to forget that mid-20th-century Modernism was driven as much by a search for programmatic innovation as by the pursuit of aesthetic and technological virtuosity. Modern architects helped reshape nearly every building type—a point that is rarely articulated today. Eero Saarinen, for instance, redefined the air terminal, Mies and SOM did the same for the office tower, and Louis Kahn redefined the art museum.

Forgotten, too, has been the seminal work of Ernest Kump in reconceptualizing the public school as an informal assemblage of pavilions and open space. Journalists, practitioners, educators, and many others have become so infatuated with formalist critique that many tend to forget that mid-20th-century Modernism was driven as much by a search for programmatic innovation as by the pursuit of aesthetic and technological virtuosity. Modern architects helped reshape nearly every building type—a point that is rarely articulated today. Eero Saarinen, for instance, redefined the air terminal, Mies and SOM did the same for the office tower, and Louis Kahn redefined the art museum.

Hostile preservationists

With some notable exceptions, preservationists are not taking the lead to protect the recent past. On the contrary, many of them seem conspicuously nervous, sometimes even hostile, regarding mid-20th-century modern architecture.

A striking example of the failure of what is now a well-established process to protect work of exceptional caliber can be found with the Cyclorama Building (1959–62) at Gettysburg National Military Park in Pennsylvania. Designed by Richard Neutra as the visitors’ center, the Cyclorama Building was the flagship of the National Park Service’s Mission 66 program and one of the most sophisticated works commissioned by any federal agency on home soil during the period.

Characterized by a contrasting huge cylinder and ramp leading to an observation deck overlooking the battlefield, the Cyclorama Building stands as an important capstone to Neutra’s long career. It is one of the most accomplished large-scale

The endangered Cyclorama Building by Richard Neutra serves as the visitors’ center at Gettysburg National Military Park.

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Neutra projects exhibiting the dynamic, conflicting qualities that interested the avant-garde between the world wars. Poorly maintained by the Park Service for over two decades, it has not aged gracefully.

The Pennsylvania State Historic Society and the president of the National Trust approved an initiative by the current park superintendent that calls for the demolition of the Cyclorama Building to make way for a faux restoration of the battlefield site. Subsequent efforts to validate the building’s significance have met staunch resistance from Park Service leaders, even though the building does meet criteria as a National Historic Landmark. The Advisory Council on Historic Preservation stands firm with the Park Service, insisting that a Modernist building detracts from the battlefield and that the two should not continue to coexist. Others remain indifferent, believing that because the building is not, after all, a textbook classic, it may not warrant a preservation effort. Many of the leading architects and historians who support the Cyclorama Building’s preservation—including J. Carter Brown, director emeritus of the National Gallery of Art; Robert A.M. Stern, FAIA, dean of the Yale School of Architecture; and Neutra biographer Thomas Hines—predict that the time will soon come when its loss will be seen as a major breach of faith by those charged with protecting the nation’s historic resources. The impending destruction of the Cyclorama Building, no less than the recent loss of the Joe Price House, is symptomatic of our ignorance and neglect of Modernism’s legacy.

ONCE CONTEMPORARY ARCHITECTURE LOSES THE CACHET OF NEWMENESS, WILL IT BE CONSIGNED TO OBLIVION?

Disappear with little notice

If important works by internationally renowned figures disappear with little notice, much less debate, what about the broader body of significant architecture that did so much to shape the 20th-century landscape? What will become of buildings created by the Kochs, the Wursters, the Sorianos, the Kumps, and the many others that figured in major ways?

A few major monuments may symbolize an era, but they do not define it. Work that is a part of our everyday lives is crucial to understanding the past and, equally important, to giving us a yardstick for what we ourselves do. If Modernism is regarded and treated as an impermanent phenomenon, it will ultimately have little impact on shaping the future. If it is, instead, to accrue meaning over time, the work itself must endure. Architects should take a much more active role in assuring the preservation of our modern architectural heritage. Unlike many preservationists, architects understand that heritage and know that mid-20th-century Modernism is one of their profession’s greatest legacies. What happens to that legacy can tell us much about how we will value the architecture of the present and of the future.

Once contemporary architecture loses the cachet of newness, will it be consigned to oblivion, known to later generations only in photographs? The forces of change have accelerated to the point where we cannot allow the new to become unquestionably old before we take steps to protect it. We risk losing an important part of the record.

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CIRCLE 32 ON INQUIRY CARD
Urbanism of the new and everyday varieties inspires a trio of books

By Clifford A. Pearson and John E. Czarnecki


Summing up more than 20 years of experience administering first aid to the wounded American landscape, the authors of Suburban Nation cover a lot of ground (no pun intended). From the roots of sprawl in the federal government's subsidies of highway construction and home mortgages to the fraying fabric of certain inner-city neighborhoods, this book provides a clear-eyed overview of what's gone wrong with postwar development in the U.S., why it happened, and what can be done to fix it.

Duany and Plater-Zyberk, the king and queen of New Urbanism, along with Speck, the director of town planning at Duany Plater-Zyberk & Co., write the kind of prose everyone can understand and include information that gets attention. For example, in explaining the paving of America's, the authors note that the city of Houston "provides the equivalent of 30 asphalt parking spaces per resident" and that the Virginia Department of Transportation Regulations describes trees lining state roads as "FHOS: Fixed and Hazardous Objects."

None of this story is new, and people who have heard Duany and Plater-Zyberk speak at conferences will find most of their findings familiar. But to pull together all their observations and prescriptions for healing the physical environment and to do it in such an accessible manner is an impressive accomplishment. The book addresses both the physical and policy aspects of suburbia and suggests what architects and laypeople can do.

Whether or not you agree with the solutions offered by Duany, Plater-Zyberk, and Speck, it's hard to argue with their diagnosis of what ails our metropolitan regions. As they explain at the beginning of this book, "The problem with suburbia is not that it is ugly. The problem with suburbia is that, in spite of all its regulatory controls, it is not functional: it simply does not efficiently serve society or preserve the environment." Clifford A. Pearson


An important work that defines the tenets of New Urbanism, this book serves as the group's manifesto. The charter illustrates the 27 principles of New Urbanism, from the scale of regions to neighborhoods and buildings, and pairs each with an essay by a different author. Now followers of the movement can use the charter to defend their work and detractors can refer to it when presenting their side of the debate.

Graphically pleasing, the book reads well but appears staid and reserved. The subject should be vibrant and alive, but instead some of the authors lapse into the repetitive rhetoric that offers critics easy targets in countering the New Urbanists' approach.

When defining the problems of today's development patterns, the text is clear and seductive. However, the solutions posed by the charter are rooted in a predominantly upper-middle-class American baby-boomer ideal of a city. In his essay, Harvey Gantt asks, "If the goal of New Urbanism is to rekindle the American Dream (admittedly an ephemeral and spiritual goal) ... then a significant thrust of this movement must focus on the existing core city." Certainly this is true, but whose American Dream is being rekindled? Why must the focus be American? The test of the Charter of New Urbanism will be its timeless quality. Will students and practitioners refer to the charter in 30 years as they do with Jane Jacobs, Kevin Lynch, or Christopher Alexander? John E. Czarnecki


The making of small, distinctive public spaces is the focus of Everyday Urbanism. It is these spaces, rather than the overly designed ones by architects and landscape architects, that collectively make cities interesting, the editors assert.

"Twentieth-century designers have found it nearly impossible to forge approaches that empower, rather than simulate, urban
the concept for the book with a series of urban design studios at SCI-Arc. Crawford makes a compelling case for rethinking conceptions of public space and identity. Kaliski, who is also a practicing architect as well as a teacher, critiques urban design as a profession and ends with a comparison between the two current poles of urbanist thought: “New Urbanists retreat to mythohistoric narratives while Koolhaas’ Generic City projects a hypermodern dystopia of city as shopping mall.”

The remainder of the book contains a mixed bag of essays making the case for alternate urbanisms, some more relevant than others and all culled from experiences in California. As a whole, though, Everyday Urbanism is a welcome collection in which everyday places are celebrated. John E. Czarnecki

The cover of this comprehensive new book on Philippe Starck’s work—which features a shirtless Starck with cryptic phrases such as “God Is Dangerous,” “We Are Mutants,” and “Tomorrow Will Be Less” written across his torso—suggests an abstract look at his work. Instead, Starck is a straightforward collection of almost 1,000 images of the man’s witty and functional designs. While each image is identified only by name, city, and year, an overview in the back of the book provides a bit more information (though not nearly enough for someone looking for an encyclopedic account of the designer’s projects and products).

The monograph divides Starck’s work into four categories: architecture, interiors, furniture, and industrial design. Projects include hotels such as the Royalton and Paramount in New York, St Martins Lane in London [JANUARY 2000, page 90], and the Delano in Miami Beach, as well as restaurants such as Asia de Cuba in New York and Felix above the Peninsula Hotel in Hong Kong. Starck’s diversified product designs for Driade, Flos, Kartell, Alessi, and Cassina, among others, are covered extensively and include home electronics, lighting, toothbrushes, a motorcycle, and StarckNaked, a transforming garment for women. Starck’s “Good Goods” catalogue, a collection of “non-products for non-consumers” (another Starckism), includes objects as disparate as a gas mask, a kayak, and organic basmati rice. Accompanying the designs are photos of Starck expressing himself in a variety of humorous ways, and silly cartoons of Starck with French captions in the spirit of the “Drawn Out Dramas” on the borders of MAD Magazine.

The book ends with interviews with the designer by Elisabeth Laville and Sophie Tasma Anargyros, and a short essay by Ed Mae Cooper, translated into English, German, and French. Starck perfectly captures the personality of its famous subject and is a colorful addition to any contemporary design library. Rita Catinella
New Media


Digital technology for architectural design has matured at a speed that would make even a Pentium chip blush with embarrassment, but technology for the display of architecture has lagged well behind.

In-D, an electronic publishing company, has sought to rectify this lapse with a series of CD-ROMs called, collectively, Planet Architecture. The series now comprises five one-disc volumes, divided into two categories: monographs and building typologies (with projects by a collection of architects). Monographs include work by R. M. Schindler, Will Bruder, and Eric Owen Moss. The first two building-type collections present recent houses from architects such as Morphosis, Rick Joy, RoTo, Mark Mack, Scogin Elam Bray, Bruder and Moss.

Each disc contains pictures of the various projects, plans, interviews with the architects, and virtual-reality representations of several interiors. The methods for displaying the photos vary from disc to disc, as does their effectiveness. The virtual-reality sequences suffer from a lack of adequate technology. Stitched together as several contiguous, flat images, these virtual sequences are too small to show anything in detail and are distorted, as if seen through a fish-eye lens.

The architect interviews are by far the most valuable part of the product. The editors of the discs stay invisible, and the architects go into some depth on their design philosophies and the specifics of their projects, especially on the monograph CDs, which are particularly interesting. The discs have gotten progressively better at exploiting the available technology (the Eric Owen Moss monograph is the most recent release), and the $30 price is still less than most large-format architecture books. And books don’t talk.

Kevin Lerner


This reproduction of Palladio’s I Quattro Libri dell’Architettura does not pretend to be much more than a faithful, sumptuous facsimile of a rare first edition. Nor does it need to be much more to be a worthy addition to a digital library.

The book, which comes on one disc, is presented in high resolution as an elegant, full-screen Adobe Acrobat file. Palladio’s illustrations can be copied and reproduced in other programs, and the text—both the original Italian and the English translation—is searchable. Robert Tavernor, a professor of architecture at the University of Bath, provides an introduction to Palladio’s work and to his book.

If you’ve ever wanted to see the original edition of this classic or copy its drawings without pressing the 430-year-old tome into a photocopier, this version should satisfy.

Kevin Lerner

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Dutch architect Lars Spuybroek of Nox gets visionary in Nantes, France

Exhibitions

by Claire Downey

Riding the high-speed TGV train from Paris to Nantes, you can easily imagine being propelled in a time capsule. A picturesque landscape of farms and small chateaux, seemingly unchanged over two centuries, flies past the window. The scenery lulls the senses into a state of nostalgic bliss, which is probably the best way to arrive at Nantes’ academic, classical Musée des Beaux-Arts to see the Vision Machine exhibition. Passersby would never suspect what lies within, particularly the centerpiece of the show, a walk-in environment designed by Lars Spuybroek and his Rotterdam-based firm, Nox.

Nantes, on France’s Atlantic coast, is the birthplace of Jules Verne, the 19th-century visionary novelist whose 20,000 Leagues under the Sea (1870) and Journey to the Center of the Earth (1864) took his readers on fantastic adventures into the unknown. As part of France’s ambitious cultural calendar for the year 2000, the city of Nantes has organized five exhibitions around the theme “Jules Verne and Imaginary Worlds.” The Vision Machine exhibition is certainly the most audacious of the group, although the one with the least obvious link to the imaginative writings of Verne.

Filling the first-floor atrium and gallery spaces, Vision Machine celebrates artists' fascination with exploring the limits of space and perception via technical advances from the end of the 19th century to the present. To illustrate this theme, exhibition curator Arielle Pélecan has chosen over 250 works of architecture, video, painting, and photography for display by such artists as Tanguy, Matta, Finsterlin, and Claude Parent. Many of the pieces are contained within Spuybroek’s own three-dimensional setting.

The title, Vision Machine, comes from the project that the artist Frederick Kiesler developed between 1938 and 1942 in his New York–based Laboratory for Design Correlation at Columbia’s School of Architecture. Kiesler wanted to create an audiovisual machine that could emulate the process of vision, the passage of the image to the brain, and then the interpretation of that image—both consciously and subconsciously—by the artist. Kiesler’s machine would take into account the latest techniques for measuring light, sound, and thought patterns. Unfortunately, not everything he needed existed at the time and he never completed his study. Kiesler did realize several “biotechnique” installations, including the Mobile Home Library [SEPTEMBER 1939, page 60], and left hundreds of drawings, some of which are exhibited in Nantes.

Spuybroek’s new version of a Vision Machine covers 2,000 square feet of the central atrium of the museum. Upon entering this all-white landscape, where even the floor plane rises and turns, vis-

Claire Downey is an international correspondent for RECORD who lives in Paris and serves as editor of This City Paris, a quarterly English-language magazine on Paris culture.
Editors have the impression of walking onto a wave.

Spuybroek describes his project as a "wet grid," a fluid architecture defying its Cartesian plan. According to the Dutch architect, Cartesian grids split the world into two planes—horizontal and vertical. For example, in the atrium, the eye looks up as the body walks forward. To reunite movement and vision, Nox Architects began the design process by calculating the location of eight parallel double lines running at eye level from the entry to the rear of the museum. With the aid of a computer, they then created a "dynamic vortex," using the same program a filmmaker uses to simulate the effect of a tornado. The lines were spun up and out. Taking the resulting diagram off the computer, Spuybroek and his team at Nox then followed the new line pattern with stiff strips of paper, using paper clips to hold them together at points of contact. From this makeshift model they were able to find the points at which the strips were self-supporting. Back at the computer, the architects translated the model into a real structure.

The resulting skeletal structure is made entirely of painted wood and covered with stretched white fabric. Interior space takes its form almost by chance, yet it is inside these peaked spaces that much of the artwork, including paintings by Klee and "X-ray" photography from the turn of the century, is hung. The structure is both a work of art and a machine for seeing.

Here "vision machine" refers to the relationship of the viewer to the art and the space. It could be argued that all museums are a type of vision machine, yet the Nox project aims to facilitate a dynamic between our bodies, which are in perpetual motion, and the art, which is an act of creation. It's difficult to say whether the interior space—which at some points is very narrow—eases our perception of the art, but it certainly doesn't interfere. It is successful in being both dynamic and intimate at the same time.

Some of the work in the show amplifies this theme remarkably. For instance, the Orgone Helmet, created in 1996 by Studio Van Lieshout, completely covers the head and shoulders, allowing no light to enter. This not only deprives the wearer of sensory perception but is intended to promote clear thinking.

Some of the architectural drawings and models on display might seem dated in comparison to the Nox design. Instead, it puts them into a context of continuity. Projects like Coop Himmelblau's 1967 Villa Rosa and Archigram's "Instant City," designed in 1968, invited us to radically change our mode of living—which we haven't done. Nor have we taken Jules Verne's lead and traveled to the center of the earth, but as this exhibition points out, for every new advance that we do embrace, there are always visionaries who will push us to go even further.
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Writhing forms and biomorphs invade Venice for this year’s Biennale

Exhibitions

By Michael Stanton

The seventh Venice Biennale (www.labienalle.org) runs June 18–October 29. Held at the Giardini di Castello and Venice Arsenale, it includes work by hundreds of architects from around the globe.

Installed in every pavilion of the sprawling Giardini, the city’s public gardens, and inside the equally expansive historic shipbuilding area of the Arsenale, the Venice Biennale of Architecture presents miles of forms and millions of words relating to those forms. The volume of material and its international profile alone make this exhibition significant.

Like its more venerable sibling, the Art Biennale, with which it alternates years, this show is vast but not comprehensive. As always, the bias of the curator heavily influences content. In this case, Roman architect Massimiliano Fuksas imposed his professional concern for the look of architecture, assembling a festival of shimmering and writhing shapes dedicated to the topic “Less Aesthetics, More Ethics.” Given the nature of the work that Fuksas chose for the sprawling areas of the Italian pavilion and Arsenale, the title of the exhibit seems somewhat ironic. The show contradicts its theme by displaying maximum aesthetics and is impressive as such.

This said, there seems to be a remarkable degree of uniformity in the exhibit curated by Fuksas. Biomorphs dominate with projects by Ben van Berkel, Lars Spuybroek, Wiel Arets, and MVRDV from the Netherlands. Few Swiss appear. The sparse American showing includes work by Greg Lynn, Michael Bell, Asymptote, Reiser + Umemoto, and Diller + Scofidio. The exhibit reveals that problems continue to plague the 100-year history of biomorph vocabulary, which began with Art Nouveau and followed through various episodes of Expressionism, from Catalan Modernismo and Erich Mendelsohn’s projects of the 1920s, to Deconstructivism’s brief moment in the late 1980s.

From the virtual to the built
Biomorphism is inevitably associated with rhetoric hailing a new architectural revolution, defiance of the orthogonal, faith in the organic, and—at least to this observer’s eye—a naïveté about the way the projects are expressed architecturally. In addition, these shapes remain hard to construct, as is demonstrated by the exhibition’s few attempts to move them from the virtual realm into built form.

The U.S. pavilion features the work of Hani Rashid and his students at Columbia University and Greg Lynn with his UCLA studio. (Lynn also has work at two other venues, the gallery curated by Fuksas and the Austrian pavilion.) A central theme of the U.S. pavilion, where the Columbia and UCLA students can be seen working on further iterations of their projects, is new technology and its applications.

The idea is that the pavilion be an architectural test space and a contemporary research laboratory, not just an exhibition venue. While student work can be visually beguiling, it is, by definition, immature. To show such work adds to the inevitable impression that image, light, color, and curve are more important than substance.

The real star of the Biennale is the medium of video/computer projection. Most spectacularly this format dominates the Corderie dell’Arsenale, which is lined with a 900-foot-long screen with continuous video images of metropolitan sprawl—social conflict, pollution, the
Exhibitions

plight of refugees, new social centers, airports, and shopping centers—and includes interviews with 50 prominent architects. The coordination of this feat of projection and the visuals presented are the Biennale’s greatest achievement, and the Corderie is its most successful space.

Browsing the digital world
With rare humor, the Dutch pavilion engages visitors with hospital beds that can be adjusted at the touch of a joystick and with computer monitors available for browsing the digital world. One is asked to remove oneself from the immediate surroundings of an exhibition and enter that of the office or home. While this is potentially an interesting shift, here it ends up being just tedious and alienating.

The Biennale both explodes through excess and underlines through repetition the insistent questions raised by computer technologies. The show itself is dazzling, a long day (at least) of exposure to many international purveyors of image, if not ethics. Moments of it are individually sensational, like the street of monitors displaying talking-head architects shot against vivid pink, orange, green and blue electronic backgrounds in the Italian pavilion. All these famous architects declaim in a neutral din, replacing one another on video screens with the speed of TV commercials.

Unlike the imposing Art Biennale of last year, this show was largely unfinished on the first day of previews (architects will be architects) and was largely unpublicized, even in Venice. This haphazard and clandestine quality emphasizes the somewhat marginal status of architecture in today’s larger cultural debates.

Where the virtual becomes real: a portion of the U.S. pavilion.

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Go to your lumber yard for the floor system that gets a standing ovation
In the towns and cities of Mediterranean Europe, cemeteries are traditionally walled precincts situated outside the town. People of modest means inter their dead in niches in the walls, at least for as long as they can pay the rent (after a certain period, the bones are usually removed to a common ossuary).

Wealthier citizens own family tombs and mausoleums, which are set in ordered plots amid the walks and cypress trees within the cemetery walls.

The crypt shown here, an addition to the municipal cemetery of Zumárraga, in the heart of Spain’s Basque country, combines this typology with that of an older Roman precedent, the catacombs. Zumárraga’s original 19th-century cemetery lacked space for expansion, as the town had grown up around it. José A. Pizarro, then the municipal architect and now based in San Sebastián, convinced
the town fathers that the cemetery could be extended underground. He cleared the family tombs within the walls, leaving an open space of walks and grass that allows the precinct's amphitheater shape to become clearly visible. A central stair leads down to two parallel underground galleries, which are lined with more than 600 niches, as well as spaces for ossuaries. The galleries terminate at each end in two "ceremonial" or "expressive" rooms with matching sculptures: to the left, in a dark space of smooth curving walls, the black marble *Spirit of Evil*, by Reinaldo López; to the right, under an elaborate tracery of crossing beams pierced by direct sunlight, the sculpture *Angel* in green bronze, by artist Vicente Larrea.

As these symbolically charged chambers suggest, Pizarro designed the crypt with a certain theatrical flare. The drama extends from the dark Baroque flourishes of the descending entry threshold to the solemn rhythm of pilasters and beams that mark the underground walls and ceilings, and the oppressive low-arched openings that connect the galleries. The dusty air (the crypt is cleaned only once a year, for All Souls' Day, November 1) is dramatically pierced by narrow shafts of natural light. The lawns between the garden walks above are slightly raised, allowing light and ventilation to enter through small clerestory openings, while other shafts allow vegetation to take root underground. At the entry to what he calls his "City of the Dead," Pizarro has placed an inscription that reads, "This parochial cemetery was established for men, who die only once, and for the Final Judgment." Here, a provincial essay in Post Modernism has produced an eerie classic.
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Fernau & Hartman designs for improvisation at Oxygen Media

By Clifford A. Pearson

Explaining his design strategy for the offices of Oxygen Media in New York City, Richard Fernau, FAIA, talks of creating opportunities for "controlled accidents," those unplanned meetings and conversations that, in a simpler era, supposedly happened around the water cooler. Instilling the water-cooler spirit throughout the headquarters of a fast-growing start-up company in the cyber age was a key challenge facing Fernau & Hartman Architects. Working within a very tight (though undisclosed) budget and a frantic one-year schedule for design, construction, and move-in, the architects elevated the adjectives rough, cheap, and mobile into virtues.

Oxygen is the women's cable-television channel and online network founded and run by Geraldine Laybourne, who had turned Nickelodeon into a popular fixture in the cable-TV landscape. Partnering with Oprah Winfrey and some top Hollywood producers and funded by people such as Paul Allen, a cofounder of Microsoft, and Bernard Arnault, the chairman of LVMH (the French luxury-goods conglomerate that includes Louis Vuitton and Moët Hennessy), Oxygen is not your typical start-up, floating on youthful dreams. But it is a start-up and shares many of the same risks and challenges of any brand-new enterprise.

Laybourne and her husband, Kit, who is an animator and a key executive at Oxygen, "had a vision," says Fernau, "but there were a lot of unknowns about their business when we got started." Aiming to capture the great potential released by the "convergence" of television and the Internet, the Laybournes were charting new territory and targeting a market—women—that had often been taken for granted. Nobody knew how many employees the company would need or how fast the engine would run. So Fernau decided to give Oxygen "an armature for improvisation." "We know we're in a world of change, so we have to be extraordinarily flexible," states Kit Laybourne. "And we know we have to make the place fun, so people—especially young people—will want to work here."

Fernau had a long history of working with the Laybournes, having designed Nickelodeon's offices in New York, the Disney Channel's offices in Burbank, and a house in Colorado for the couple and their
The 21,000-square-foot top floor (below) has 35-foot ceilings, high enough to fit a small mezzanine at one end. About 500 people work at the headquarters, in a set of old buildings that was once a Nabisco factory.
children. When the Laybournes started looking for a location for their company, they asked Fernau to help them scout properties. Of all the properties they investigated, the top two floors of Chelsea Market—a collection of 17 old industrial buildings near Manhattan's meatpacking district—had “the most oxygen,” says the architect. “You could walk into that space with its 35-foot ceilings and take a deep breath.”

The talking cure
Starting in early 1999, Fernau and his partner, Laura Hartman, ran a series of three-day charrettes at their offices in Berkeley, Calif., at which the key players—including the Laybournes—participated. The first charrette “was mostly conceptual,” recalls Fernau, and dealt with the clients' management style and the new company's visual identity. “They wanted a place with buzz, a place that encouraged a free exchange of ideas.”

According to Fernau, much of the discussion “focused on the interstitial spaces, the spaces between the desks where people hang out and talk.” By the end of the charrette, the clients and designers agreed on creating two kinds of such social areas: a few large ones where people from around the office can gather to talk informally and many smaller ones where coworkers can collaborate on projects.

Instead of traditional workstations, the architects decided to use
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Most employees sit at open workstations along either stained-wood zippers (right) or one of the metal zippers (below). Desks sit on wheels so they can be pushed together.

a kind of theatrical scaffolding that would serve as both furniture and storage system and could be easily reconfigured to accommodate changing needs. "We called it a 'double mother' because it would be a complete support system on both a technological and a social level," explains Fernau. Shortly after the first charrette, the architect brought his car into the repair shop to get a tire fixed and noticed the metal shelving system for holding tires. A lightbulb went on in his head. "I asked myself, 'What if you could inhabit an industrial pallet-rack system?'"

Marrying the double mother with the tire racks, the designers developed what became a key element in the Oxygen offices—the "zipper." An adaptation of an industrial shelving system made by the Equipto Company, the zipper would be a spine of workstations with attitude. Desks would roll on in-line-skate wheels so they could be huddled together or pulled apart. Storage "suitcases" would slide along the upper portion of the metal framework. Acoustical "gull wings" painted like colorful checkerboards would flap out from the spine for privacy. Task lights would swivel on metal arms. The modular assembly of attached workstations would make it easy to add, subtract, and adapt individual pieces.

"We were moving really fast. Even before they signed a lease at Chelsea Market, we were designing the zipper," says Fernau.

Equipto, which had always targeted the industrial-building market, was thrilled at the chance to work on an office interior and perhaps find a new source of customers, recalls Alison Murphy, the director of facilities for Oxygen. Meanwhile, the designers kept adding more elements to the zipper: open cable trays, nesting file cabinets, and perforated-metal "butterfly-wing" partitions—not all of which made it into the final design.

The second charrette investigated a variety of schemes for laying out the offices. Although the Laybournes preferred open spaces with workstations—to encourage "schmoozing" and discourage corporate hierarchy—they agreed to have some private offices. They also decided to carve out an atrium with an open stair connecting Oxygen's two main floors (the building's 7th and 8th), giving up some valuable square footage to create an attention-grabbing central volume rising nearly 50 feet up. Two "towers" would anchor the atrium: one with conference rooms on each floor and the other with editing and production spaces. The participants at the charrette debated whether the main entry should be on the 7th or the 8th
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Checkerboard “gull-wings” can be added to zippers for acoustical privacy (right). Wooden shelving units called “suitcases” provide space for personal items (bottom).

floor, and finally agreed on the lower one. “We decided to bring people in on the lower level and move them up to the light and the big space,” recalls Fernau, referring to daylight coming from the upper level’s clerestory windows.

Because Oxygen focuses on women, not children, the designers developed a palette of colors and materials that would be lively but less frenetic than the one Fernau & Hartman used at the Nickelodeon offices years before. “They wanted a calmer kind of jazz with just punches of color,” says Fernau. Playing off the image of fresh air, the architects selected natural materials such as wood cladding for the conference tower and colors such as celery, mint, and mustard for wall surfaces.

**Mixing it up in the office**

In laying out the office, the Laybournes wanted to apply the same workplace philosophy they had used at their Nickelodeon offices: employees working in teams and a grassroots (rather than top-down) decision-making process. “Originally, we thought we’d have all the managers sit with their teams,” explains Kit Laybourne. “But eventually we decided to mix things up a bit more and put people from different teams together.” In particular, the Laybournes realized it was important to mix television people with Internet people, so there could be cross-pollination between the two media. Encouraging teamwork was another goal. The movable desks along the zippers and the spaces between “broken” zippers provide venues for casual interaction between employees. Groups of comfy chairs and coffee tables in various open areas let people exchange ideas a bit further from their desks, as does the office canteen.

To balance the industrial aesthetic of the Equipto zippers, the architects designed a lower, less imposing version in mustard-yellow-
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Architect: Betz Architekten
Artist: Dan Flavin
(lighting installation)
Photographer: Pascal Hoffmann
(left); Jens Weber (above)
Project: New Museum, Nuremberg, Germany
Architect: Volker Staab
Photographer: Udo Meinel
Project: Museum of Art,
Duisburg, Germany
Architect: Herzog & de Meuron
Photographer: Christian Richters
Project: Georg-Schäfer Museum, Schweinfurt, Germany
Architect: Volker Staab
Photographer: Udo Meinel

Project: Paris Apartment
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Highly experiential, otherworldly interiors have proliferated around the year zero. Conceptually far from the cheap and literal tricks of theme parks, these places immerse the occupant’s senses—sometimes altering perception—through spatial complexity and the quality of light. Fittingly, this phenomenon, in varied guises, recurs often in RECORD INTERIORS 2000.

Just steps from Las Vegas’ “Venetian Grand Canal,” for example, Lutèce restaurant, designed by Morphosis, comments obliquely on its milieu with an off-center, drumlike dining room, whose forms nearly spin like an inverted roulette wheel gone askew. The effect is seductive, yet treacherous, yielding an elegant room that is comfortable, but not quite. By contrast, at Tsunami, Morphosis’ other Venetian Resort restaurant, great folded planes of tilting floors and ceilings generate a powerfully engulfling chasm.

In Paris, an interior terrain has surged within the grided 3-D matrix of the Pompidou Center. For the top-floor restaurant, Georges, architect Jakob+MacFarlane inserted an extraordinary silvery landscape of undulant, cloudlike forms. Meanwhile, in Berlin, Sauerbruch Hutton’s lighting showroom challenges the conventions of product display by harnessing form with light and color. The setting transforms itself as electric light or the sun’s rays pass through transparent mosaics of color. Sculpting with light and reflection is equally poetic, but more Minimalist, at Archi-Tectonics’ Duggal digital facility in New York City, where the architecture itself often emits or modulates light. Evoking the virtual realm, Duggal’s illumination sometimes implies the presence of volumes, which are, in reality, as intangible as the ether of cyberspace.

Luminous translucency is almost ubiquitous in the realm of recent interiors, especially in the spate of workspaces for dot.coms and related companies [see story on Oxygen Media, page 82] that require flexibility and a fine balance between openness and privacy. Shadowy, veiling materials—sandblasted glass or polycarbonate sheeting—gently diffuse light, creating lantern effects and altering depth perception. In a SoHo loft by Marble Fairbanks, such “lenses” induce provocative ambiguities between indoors and out. North, an Oklahoma City guest suite by Elliott + Associates, carries pure whiteness and translucency to the nth degree, offering a serene retreat and filter to the outside world.

In its own way, each of these RECORD interiors recognizes where it is—one feigns exoticism or borrows ready-made styles—yet in potent architectural terms, they all transport us.
Colored-glass panels refract rays of sun and electric light. Niches in freestanding plastered walls showcase artwork and the quality of light cast by different luminaires.
Sauerbruch Hutton harnesses form, color, and light to turn a former Berlin lightbulb factory into a new ZUMTOBEL STAFF showroom.
Like a prism held up to the sun, tinted-glass wall panels in a new Berlin showroom refract rays of light, casting shadowbox patterns in three dimensions. Departing from the conventions of product display, lighting manufacturer Zumtobel Staff recently launched an inspired campaign, commissioning an international roster of inventive architects and artists, including American sculptor James Turrell, to design its regional centers across Europe. These gallerylike settings immerse clients in sensual, highly theatrical vignettes. In this vein, Sauerbruch Hutton Architects clearly broke free of standard showroom constraints when envisioning the 8,000-square-foot Zumtobel Staff outpost in the German capital, creating a kaleidoscope of color and light.

Partners Matthias Sauerbruch and Louisa Hutton—known for exuberant color on such projects as the GSW Headquarters, with its bold patchwork facade of Paul Klee–inspired hues [JUNE 2000, page 156]—approached the showroom assignment, according to Sauerbruch, “as an experiment in the transformative properties of light.” Of course, light is essential for the human eye to differentiate along the spectrum of visible color. Taking cues from this scientific principle, the partners shaped space by manipulating color wed to the sun’s rays and to electric light.

Set in a harborside industrial district of former East Berlin, the Zumtobel Staff Information Center occupies a century-old structure built, fittingly, as a lightbulb factory. Fronting the street and framed on two sides by pedestrian arcades, the two-floor, to-the-trade facility houses showrooms, offices, and areas for meetings, exhibitions, and client entertainment. With private and public zones merging, a reception desk doubles as a cappuccino bar, while display niches showcase either art or the quality of light itself. The existing shell and floor slabs remain intact, except for a custom spiral stair inserted between levels. The largely open plan is articulated by sculptural interventions: partitions of colored glass or brightly painted plaster, dropped cloud-shaped ceiling sections, and chunky tables and cabinets designed by the architects and set about sparsely as freestanding pieces that evoke the work of Donald Judd.

Showstopping illumination provides a layer of refinement, for which Sauerbruch Hutton collaborated with a Zumtobel Staff in-house design team, headed by Rainer Dommershausen in Berlin and Herbert Resch in Dornbirn, Austria.

To mask unremarkable views of the arcades—while infusing the showroom’s inner proceedings with a sense of mystery—the architects set a collage of colored glass panels along the two existing curtain-wall elevations. The panels, which sandwich multiple layers of colored film between sheets of glass, are suspended by rods from steel tracks, and rest on delicate cast-aluminum feet. The horizontal assemblage features translucent and transparent sections, with some panels partially overlapping in multilayered blocks of color. Ceiling tracks parallel to these screens accommodate virtually any of the company’s adjustable fixtures for varied lighting effects—projecting images ranging from ghostly to sharply etched onto the color fields. During the day, the intermingling of filtered sunlight and electric illumination casts ever-changing patterns.
A former lightbulb factory (opposite, top) houses the Zumtobel Staff showroom. Corridor niches (two views, left) change color with light. An armature of spotlit, tinted glass screens the arcades (below).
Curving walls and cloudlike ceiling sections (opposite and below) demonstrate the effects of lighting fixtures. A paean to color and light is legible from behind a sandblasted glass wall (left).
1. Entrance
2. Reception
3. Cappuccino bar
4. Showroom display
5. Pedestrian arcade
6. Office
7. Meeting
8. Storage

Opaque, colorful fins behind the stair help clients test lighting (opposite). Computer-controlled fluorescents in an overhead aperture simulate daylight (left). Sculptural dividers (above) evocatively cast shadows.

onto the black-pigmented concrete floor like a time-lapse series of abstract paintings. At night, the internally lit showroom becomes a festive lantern facing the adjacent public square.

Cutting a swath through the ground-floor exhibition space, a serpentine wall channels circulation. Each side of this undulating plaster-clad partition features niches showcasing different types of light sources—compact fluorescent, halogen, incandescent—and a range of fixture styles. “The curved wall of each niche,” says Sauerbruch, “acts as a blank canvas for the lighting effect created by that compartment’s fittings.” In the wall, two window slots frame views across the showroom.

Tucked into an alcove at the back of the first floor, the stainless-steel staircase gracefully swoops up a flight to meeting rooms. For the ascent, Sauerbruch and Hutton flipped the switch on their balance between color and light: Whereas the colored-glass screen on the exhibition level plays on the notion of transparency, a series of colorfully striped panels mounted behind the stair are opaque, yet subtly set aglow with backlighting. Besides playing a decorative role, the oversize color-strip panels, or “fins,” as the architects dub them, double as product-demonstration aids. Each fin is lit by a different lamp model, enabling clients to compare and contrast the quality of illumination and its effects on color.

Upstairs, offices and conference rooms have sandblasted glass doors, set on angle. As the light level within each room varies during demonstrations, the translucent doors become radiant lightboxes facing passersby. Rectangular, fiber-optically illuminated niches in the corridor walls continually shift in color to showcase special lighting scenarios.

At one end of the Zumtobel Staff center, a wall of sandblasted glass, which serves as a projection screen for colored lamps, stands as a memorable signature of both architect and client. A commissioned text, an ode to the poetic quality of illumination, spans the milky surface, its solid letters raised in counterpoint to the translucence of the glass. Streaked by light, one central phrase sums up the ethos of the showroom: “Color equals space.”

Sources
Lighting: Zumtobel Staff
Glazing: VEGLA/Kinon (manufacturer); Jastra (fabricator)
Aluminum panels: Jastra
Cabinetry: Schreinermeister
Biermann & Knoop (custom woodwork and furniture)
Plaster: Weck & Linke

For more information on the people and products involved in this project, go to Projects at: www.architecturalrecord.com
Elliott + Associates creates a pure white guest suite called NORTH that distills serenity to its essence

By David Dillon

Standing inside “North” is like standing in a view camera watching the light move from point to point throughout the day. At certain moments, it is sharp and penetrating; at others, merely a soft, vaporous glow. Occasionally the floor and walls seem to dematerialize and the space becomes a pure abstraction: light as its own subject and context.

North is a small garage apartment named for the turn-of-the-century Territorial photographer North Losey. Built in the early 1920s, it sits in the middle of Oklahoma City’s Heritage Hills historic district, overlooking downtown. In front of it stands an Italianate mansion of the same vintage, now owned by Losey’s granddaughter. To either side are other grand houses built by the city’s founding families, oil tycoons and speculators who cashed in on the land run. Originally a second-story maid’s apartment above a garage, North has been transformed by Oklahoma City architect Rand Elliott, FAIA, into a space of almost monastic purity. For the client, the project was a way to honor a man she never knew; for the architect, an opportunity to celebrate place.

“I wanted to design something that honored the past but was also part of the present,” Elliott explains. “So, instead of neo-Dust Bowl, I created this abstract, light-filled space with no telephone or television, where guests can open the windows and let the breezes blow through.”

Because North stands in a National Register district, exterior changes had to be minimal. Elliott peeled back the outside walls to the studs and re-covered them with Gunite. He also installed double-hung wooden windows to match the originals and designed carriage doors for the garage—still in use—to replace clunky 1950s versions. The touch is light, the materials familiar and economical.

David Dillon is the architecture critic of the Dallas Morning News and a contributing editor of Architectural Record.

Project: North Guest Apartment
General contractor: Lingo Construction Services

1. Bed
2. Flue with chalkboard
3. Toilet
4. Shower
5. Sink/vanity
6. Closet
7. Desk
Sandblasted glass volumes enclose the shower and lavatory separately (opposite). Guests can write messages on black slate affixed to a central column (right, top). Small vintage photos throughout the space are precisely lit (right, bottom).
The only hint of the surprises to come is the exterior staircase. The original wooden steps have been replaced by steel grates, which rise to a glass door marked with a square of black film and North Losey's signature: a photographic negative substituted for a nameplate. The architect divided the apartment itself, only 475 square feet, into four sections, each focused on a window and a function: entry, dressing, toilet/shower, bedroom. The sections are separated by sandblasted glass panels that preserve luminosity and a level of privacy. On the four exterior walls hang small original portraits and family photographs by Losey himself: an overlay of traditional personal history in a spare contemporary setting. Light from recessed ceiling fixtures casts a halo around each image and also bounces off the floor to give the interior glass walls an ethereal glow.

In the center of the space stands a square white column—probably an old stove flue—with one side clad in black slate, where guests can scribble messages and impressions. Wood flooring at the column's base has been replaced by a narrow glazed reveal that exposes the garage below, physically and metaphorically linking old and new, utilitarian and rarefied.

If the plan is clarity itself, North's moods are as enigmatic as photography. Elliott's four Minimalist spaces parse the Oklahoma light. The northern rays are typically soft and forgiving, a reprieve, while the western light comes in straight and hard as a winter storm. A hinged panel in front of the west window is coated with a holographic film that, for a few minutes each day, splashes the room with color. The windows are also equipped with shades that can be drawn tight to create a silent black box. North's moods range from serene and contemplative to cinematic and phantasmagoric. It is, as Elliott says, "a place to get reacquainted with peace and quiet," but also to listen to the land.

Elliott's fascination with the number four—four spaces, four seasons, four cardinal directions—reflects his admiration for Oklahoma's Native American history and culture. Most of his projects include evocations of the rituals and ceremonies of these native peoples, from their worship of the wind spirit to their use of stone circles and the four sacred colors—black, white, red and yellow—in their clothing and housing. The evocations are more subtle and abstract in North, but the intention is the same, to connect a building to a place.

North also demonstrates Elliott's skill at achieving a lot with a little, using inexpensive materials—plywood, concrete block, oil-field pipe, waste glass—to create complex and elegant effects. This aesthetic is reflected in the bathroom's steel-rod towel racks and toilet-paper holders, the acrylic tape connecting the corners of the glass walls, and the white plastic laminate surfacing the furniture. Everything has been kept simple and direct to retain the serenity of the space and the force of the idea that inspired it.

Sources
Paints: Sherman Williams
Windows and doors: Weathershield
Plastic laminate: Formica
Cabinetry: Contemporary cabinets (custom)
Lighting: Lightolier, Halo, Elco, Hubbell
Sink: Cherry Creek
Toilet: Kohler

Faucets and controls: Krion
Shower: Jetta; Kallista (showerhead)
Refrigerator: General Electric (compact)

WWW For more information on the people and products involved in this project, go to Projects at: www.architecturalrecord.com

Complementing the pure, simple geometries and sheer materials (top and opposite), the sink is of clear glass (above). A holographic window coating brings colorful light into the space (opposite).
In New York City, Archi-Tectonics transforms a vintage warehouse into DUGGAL, a luminous, streamlined “factory” for the digital age

By Sarah Amelar

icy blue, sandblasted glass walls, high-gloss floors, and luminous, virtually floating volumes are hardly the standard fare of factory architecture. But Duggal does not operate a standard factory—at least not in the gritty, old-fashioned assembly-line sense. The graphics and photo-imaging company’s New York City production headquarters, designed by architect Winka Dubbeldam and her firm, Archi-Tectonics, is primarily a turn-of-the-millennium phenomenon: a digital factory. And although the space has a streamlined—one might even say, stylish—elegance, it is as precisely crafted to its modes of production as a General Motors plant. Though graceful and Minimalist in appearance, Duggal is, in unexpected ways, a work of lean functionalism.

To achieve spare and apparent simplicity, the architect scrupulously extracted the program’s essence—throughout the design phase and even into construction—as the client reinvented itself. Major shifts in technology were recasting the very nature of Duggal: its processes, products, and clientele. The company had already changed dramatically since 1957, when India-born Baldev Duggal founded his one-man operation, shooting film in his bedroom and processing it in his bathtub. But recent developments were even more radical. His 175-employee company is now capable, for example, of translating cybercommands into weatherproof prints large enough to wrap city buses or entire buildings.

When Dubbeldam first came to Duggal in 1994, she was merely a customer, whose work made a strong impression on Baldev Duggal’s son, Dave. After she and Dave began discussing the challenges of creating a space—real or virtual—for a cybercompany, he convinced his father to hire Archi-Tectonics. Initially the projects were modest, but within a few years, Dubbeldam’s small New York firm was commissioned to convert an 18,000-square-foot Manhattan warehouse—an L-shaped ground floor of a six-story 1881 building and its neighboring structure—into Duggal’s new production headquarters. A city block deep, the 18-foot-high space has large windows at either end. Baldev Duggal was eager to move his staff from its 16-story rabbit warren to a single open floor—he envisioned an efficient, light-filled venue where he and his workers could readily interact.

Given the company’s evolving state, both architect and client needed to fathom the design implications of dustfree digital scanning and Duggal’s other new hyperclean work. The sense—and reality—of smooth, pristine surfaces in a fluid, infinitely vast space became essential pragmatically, as well as conceptually and psychologically. For handling massive quantities of huge-scale, sometimes delicate, prints, Dubbeldam realized, production areas had to feel, and be, as unencumbered as possible.

When the client requested a sales-and-marketing floor in the facility, Dubbeldam introduced a 6,000-square-foot mezzanine that would leave production zones pure and separate. To allow this midfloor to float visually, Archi-Tectonics and its engineering consultants devised a floor only 8 inches thick, made of concrete with a steel edge beam, that they could cantilever from an existing brick side wall and concrete columns. The long, unob-
One challenge was to keep the mezzanine thin and visually floating—an effect achieved with cantilevers and concise steel rails (this page and opposite).
constructed spans beneath this floor plane gave the architects flexibility as the client reconsidered emerging technologies.

In shaping the design, Dubbeldam discovered a welcome surprise: beneath bulky encasements were two rows of Corinthian cast-iron columns. "Those hidden columns were a gift to us," she recalls. "The project then came together in a really interesting way." Dark, slender, and ornate, these elements became a foil to her clean-edged Minimalism and the project's high-tech character.

Preserving spatial flow, the architects carefully kept the elaborate mechanical installations—ranging from separate ventilation networks for different activities to complex chemical treatment, plumbing, and air-conditioning systems—to a visible minimum. "It was my goal," says Dubbeldam, "to take this unbelievable array, and make the whole place look completely simple and natural—when, in fact, it was a big struggle to make sure you wouldn’t see those things." On the building's west edge, she created a double wall with a plenum for most of the mechanical systems. (The overhead air-conditioning ducts, currently in place, will be removed.)

Attuned to the quality of light as it relates to different activities and experiential climates, the architects recognized that big industrial fixtures giving precise color rendition would be essential in the large 24-hour production areas, whereas for sales-and-marketing work, that same illumination could induce eye strain.

Bringing daylight deep into the space, Archi-Tectonics favored translucent sheets of glass, rather than opaque enclosures with doors, for most of the partitions, thus retaining openness. While seated workers have relative privacy, those standing can catch glimpses of adjacent spaces through a clear, unfrosted band in the glazing. (It's not as much like a peep show as it may sound.) These transparent slots vary the texture of light and, when viewed through one another, take on visual complexity as they diminish perspectively into the distance.

The two main glazed volumes, housing respectively the new and the old—the mainframe computer with its nexus of telephonic and cyberconnections and the "wet" chemical areas for the company's vestigial traditional photographic work—flank a mezzanine-level bridge. The bridge crosses into scanning and digital image-manipulating zones in the adjacent building.

Rendering electric light at once functional (continued on page 228)
Hard to play it cool when your first big commission must insert itself within Richard Rogers' and Renzo Piano's manifesto for modern architecture: the 1977 Pompidou Center. But that's exactly what faced Paris-based architects Dominique Jakob and Brendan MacFarlane, both in their 30s, after they'd won an invited 1997 competition to design a restaurant on the site of the Pompidou's sixth-floor cafeteria. The project was part of a two-year renovation, which involved significant reorganization of the building's interior spaces and a full cleaning of its exterior. Though Richard Rogers chose not to participate in the renovation, Renzo Piano returned to work on the entry atrium. For the crowning restaurant, however, Pompidou Center president Jean-Jacques Aillagon wanted an entirely new architecture.

“When we first visited the site,” MacFarlane admits, “we were completely scared. We had two reactions—to search for something we could work with, or freak out and not do the project.” This response is easy to understand. The Pompidou is one of the best-known structures of the

**Reinventing the Pompidou Center’s top-floor restaurant**

**Jakob+MacFarlane** creates **GEORGES** with great, curvy aluminum forms high above Paris

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**By Claire Downey**

Claire Downey is ARCHITECTURAL RECORD'S Paris-based contributing editor.
20th century. "It is complete and man-made," says MacFarlane. "Everything is there, so the question becomes, how do you add to the train?" Equally daunting are the panoramas. The sixth floor commands one of the most spectacular views of Paris, which draws 25,000 people a day up the famous glass-tube-encased escalator that climbs the center's plaza-side facade. Designing for this highly visible site would be like building in a fishbowl.

Fortunately, French-born Jakob and her partner, New Zealand-born MacFarlane (who earned a B.Arch. at California’s Sci-Arc and an M.Arch. at Harvard) find inspiration in tough situations. Since starting their practice in 1992, they have—through such work as the tightly sited T-house near Paris—concentrated on generating project-specific solutions, rather than developing a signature style. They describe their methodology as "parachuting in" and looking for something to appropriate. At the Pompidou Center they zeroed in on the floor grid. With its squares measuring 31 inches on each side, it offers the smallest module of the building's structural matrix. The floor was virtually the only boundary of the 8,100-square-foot space that the architects we permitted to modify. Off-limits was the ceiling, boldly overlaid with the
Viewed from the terrace (previous spread), glowing, undulant volumes offer respite from their gridded surroundings. Inside (this spread), square, clean-edged furniture by Jakob + MacFarlane plays against the fluid forms, clad in aluminum—chosen for its lightness, neutrality, and fire resistance.
Pompidou's trademark red, green, and blue HVAC ducts—as were the two elevations of floor-to-ceiling glass and two solid walls. The area underfoot seemed the most hospitable territory for intervention, although even here the architects were limited to loads of 110 pounds per square foot.

Jakob and MacFarlane's terrain now rises from the grid lines like volcanic eruptions, defining four large, undulant, aluminum-clad shells that range in length from 26 to 68 feet. Each one camouflages a programmatic function. Throughout this landscape, aluminum appears extensively. Brushed with hand-held machines to enhance the texture and play of light, this material was chosen for its lightness and neutrality.

The four objects or shells are lined in colored rubber: lime green for the coat-check area and bathrooms, yellow for the future bar (now housing video screens), red for the VIP lounge, and gray for the kitchen. Tables fill the unobstructed, glazed perimeter. An outdoor terrace, seating more than 150, opens from the restaurant. At the terrace's northern edge, a shallow reflecting pool buffers diners from the museum's glass corridors.

Jakob and MacFarlane designed the Minimalist, clean-lined furniture, including glass-topped tables and square, injection-molded polyurethane chairs, in deliberate contrast to the lavalike aluminum volumes.

Aluminum floor panels, following the original grid, have a smooth, waxed finish, which protects the surface from stains. Just beneath this metal flooring, a layer of bitumen, above 2 inches of very light-weight concrete, cushions the sounds of scraping chairs and high heels. A 4-inch-deep plenum be-
At Georges’ entrance, an existing rectilinear portal contrasts with the new forms (opposite left). In a striking scale play (opposite right), a huge, truncated projection from the central shell juts out—like a chimney or undersea creature—into the main dining area. Throughout this interior landscape, volumes and openings frame views, here creating a vivid sequence of color (this page).
neath the raised floor carries electrical wiring and plumbing to the four shells. The new floor feels more solid than the Pompidou's original raised flooring (which literally bounced), and it also visually ties together the architectural elements.

Physically connecting the forms to the floor, however, was not easy. Each volume is anchored with up to 27 spring connections, attached to steel plates that are cemented to the concrete slab. Accommodating the weight restrictions and the underlying concrete floor's scant 4-inch depth, the springs help prevent deflection due to static loads.

Without 3-D computer modeling, it is unlikely that this highly topographic project would have been conceived, much less built within budget and on schedule. The technology not only allowed for instantaneous visualization and molding—stretching and collapsing—of the forms, but also influenced the design's development. Though the shells contain within their skins networks of electrical wiring and plumbing, they appear remarkably thin—especially at openings, where aluminum and rubber meet almost at knife edges. The engineers, RFR, conducted computer analyses, enabling the architects to reduce these edges to nearly two dimensions: a quality reflecting the computer model and its visual lack of mass.

Interestingly, early on, the architects modeled four rectilinear boxes, not at all the forms we see today. But what better place to introduce so-called blobular design—akin to the computer-influenced, non-orthogonal work of, say, Asymptote Architecture and Gregg Lynn FORM than the Pompidou with its a rigid grid? The juxtaposition is strong both visually and ideologically: Piano's and Rogers' work, with prefabricated parts and a celebration of the building's guts on its exterior, embodied their generation's view of the future of modern architecture, whereas today's cutting-edge building-shell designs often bear no visible trace of innards. While Jakob and MacFarlane don't profess allegiance to any "Blobitectural" school, they have exploited the computer's capacity to present skin plus structure simultaneously—as a smooth unity.

Happily, the architects also found the right contractor to make their project a reality. The shell construction took place on France's North Atlantic coast at MAG, a boat-building enterprise that produced several America's Cup entries. Combining advanced technologies with artisanal craft, the fabricators cut the aluminum skeleton by computer-directed water jets, but the skin panels by hand. They then hammered and soldered the forms following generations-old techniques for fine-tuning metal hulls. The four volumes, in sections, were assembled on site, as the size of the Pompidou's freight elevator limited the maximum dimensions to 13 by 9
Openings into the voluptuously red VIP lounge (this page and opposite top) clearly show the skin edges—aluminum and rubber sheeting—narrowly separated by a recessed aluminum band. Steel lavatory fixtures (opposite bottom) recall the Pompidou’s own exposed innards. One of the few shells with any closure, the VIP lounge has accordion doors to keep out wanna-bes.
From the future bar, yellow rubber flooring creeps out like a welcome mat into the main space (below). The voids are as sculptural as the volumes themselves (opposite).

feet. Once in place, the shells were lined with colored rubber sheets.

The restaurant's concessionaire, selected after Jakob and MacFarlane had won the competition, embraced their design. Named Georges after Georges Pompidou, the restaurant debuted in February to an enthusiastic public. Georges was conceived as a hip restaurant/café that would stay open long after the museum's 10 P.M. closing. Day and night, a discreet elevator, taking diners directly from the outdoor entry plaza, up one floor to the base of the tube-encased, zigzagging escalator, completely circumvents the entry atrium and museum ticket booth. Turnstiles at each of the main galleries keep guests from sneaking a free peek at the art.

As for Renzo Piano, while he had little contact with Jakob and MacFarlane during the design process, he has since supported their treatment of the space. Having inserted one of the first projects of the 21st century into a monument of 20th-century Modernism, the architects are breathing a sigh of relief—that is, before heading off on an entirely different mission: to renovate two old theaters in the French provinces.

Sources
Aluminum: Mag (shell fabrication); Lindner (floor)
Lighting: Walter International, Megalit, Guzzini (custom design by Jakob+MacFarlane)
Glass: Saint Gobain, Conforta
Acoustical ceilings: Texaa

Blinds: Mermet (solar control)
Furniture: Cappelini (fabrication of custom design by Jakob+MacFarlane)

WWW For more information on the people and products involved in this project, go to Projects at: www.architecturalrecord.com
In New York City, Marble Fairbanks Architects shapes a SOHO LOFT with planes of light instead of walls.
Lofts seduce us with their brazen use of space—all that square footage open to the naked eye. In reaction to the discrete (and discreet) rooms of traditional homes, lofts knock down walls and conventions. Great concept. But, alas, most people need some privacy, at least some of the time. So, these places tend to be architectural battlegrounds between the urge to show it all and the need to nest.

A 2,000-square-foot residential loft in New York City’s SoHo, designed by Marble Fairbanks Architects, addresses this dilemma by offering a series of glass veils that slide in and out of view. While the idea of movable-glass partitions is hardly new, it comes to life here through multiple sources of daylight streaming in from above and a purposeful blurring of what’s indoors and what’s not.

“Most of our projects deal with analyzing modern domestic life,” explains Scott Marble, one of the firm’s two partners. “How do people today integrate work, family, and pleasure? In a loft, this is especially challenging.” Karen Fairbanks, the firm’s other partner, adds, “We like to look at the traditional hierarchies of space—what is private, what is not. This loft pushes the openness of domestic living more than any other project we’ve done.”

Simple in plan, this home for a photographer, his wife, and their two small children occupies the top floor of an old industrial building and includes a new roof deck as well. Using steel-and-aluminum hardware normally specified for sliding metal partitions in factories and warehouses, the architects designed a system in which tempered, sandblasted-glass panels move along tracks, transforming closed bedrooms into extensions of the main living area. A galley kitchen sits within the great room, separated only by a freestanding wall finished with black lacquer over medium-density fiberboard.

Although the loft began as a dark space with windows just on the street front, it now almost glows on sunny days—thanks to skylights added to the rear and middle of the roof. These new elements bring daylight into the mezzanine and down to the main level through a half-inch-thick glass floor adjacent to a flight of back stairs and sliding-glass wall panels on two facing sides of the master bedroom. When the panels behind the main bedroom are closed, the rear stairs, which lead to the roof deck, feel as if they’re outdoors—an effect that’s heightened by the metal grating of which they’re made. When the panels are open, the bedroom seems to hover between roof and floor. Adding to the floating sensation is the split double view the clients get from their bed: up to the sky and down to the living and dining rooms.

Making this experience possible is a metal-and-glass assemblage that includes the east-facing skylight, a glass ceiling spanning the gap between the skylight and master bedroom, and the sliding-glass wall panels on the mezzanine and lower level. Holding the pieces together and supporting the mezzanine is a 12-inch-deep steel beam that runs the full 25-foot width of the loft [see construction detail, page 136]. “It was a monster getting it in here,” says Marble of the beam. But it allows the loft’s main interior wall to practically disappear when the glass panels are tucked away and is a key tool in the architects’ strategy of dividing the loft with light rather than walls.

“We created three zones of light,” explains Fairbanks, referring to the front,
1. Living
2. Dining
3. Bedroom
4. Roof deck
Sliding-glass panels on the front and back of the master bedroom (above and opposite top left), along with pocket doors, let spaces flow into one another. The main stair (opposite top left) is cantilevered from the wall, while its railing—like that of the bedroom (opposite bottom)—is white lacquer on fiberboard.
middle, and back of the residence. By lowering mechanized fiberglass-fabric shades and by opening or closing glass panels, people in the loft can manipulate the play of light and change the character of the space.

A sense of openness is enhanced by the loft's height, which the architects had to fight to expand. Because the original floor-to-ceiling dimension was about 15 feet—not enough to insert a mezzanine—the architects wanted to raise the roof by a couple of feet. The building's coop board, however, nixed that idea, so Marble and Fairbanks found an extra 20 vertical inches by removing old wooden ceiling joists. This provided enough volume for a generous master bedroom suite to overlook the living and dining rooms.

Responding to the clients’ desire for subdued colors and textures, Marble and Fairbanks chose white-lacquered fiberboard for railings, limestone for the kitchen floor, and white oak planks for the other flooring to complement the light green hue of the sliding-glass panels. Only closet doors swing out; all others slide into wall pockets and disappear. Like the floors, the dining table and much of the other furniture is white oak, made by Simon Dance, a London friend of the clients. When asked what she liked most about the loft, one of the owners gives a two-word answer without hesitation: “The light.”

“You’ll find some kind of transformability in all of our residential projects,” remarks Fairbanks, whose firm is finishing a space for a Japanese cultural institute in New York and an exhibition called Face to Face: Shiseido and the Manufacture of Beauty. For people who value flexibility and change, such designs are right on target.

**Sources**

- Aluminum pillow blocks and steel track on mezzanine: Lee Controls
- Steel track system on main floor: Hawa (Variotec)
- Cabinet faces and counters: Corian
- Semi-recessed wall washer: Elliptipar
- Sinks: Kohler
- Faucets: Krom
- Range, oven, hood: Gaggenau
- Refrigerator: Sub-Zero
- Flooring: White oak
- Kitchen floor: Limestone

**WWW** For more information on the people and products involved in this project, go to Projects at: www.architecturalrecord.com
The loft's back stair has the feeling of being outdoors thanks to metal grating, open risers, and a skylight above (opposite bottom and this page). The stair leads to a roof deck (opposite top).
In Las Vegas' "Venice," amid gondolas and swimming-pool-blue canals, Morphosis designs two dynamic new restaurants, TSUNAMI and LUTÈCE

By Lisa Findley

World traveler Thom Mayne, AIA, had never been to Las Vegas until he was asked to journey an hour by air from his southern California office to design two restaurant interiors there. Las Vegas' kitsch does not amuse him, and the recent spate of huge, themed hotel casinos, each mimicking the icons of different cities from around the globe, appalls him. At the same time, however, Mayne was intrigued by the client's offer of virtual carte blanche—an enticement for any architect—and ultimately he accepted the commission.

The site for both restaurants—Lutèce and Tsunami—would be scenic "Venice," or more precisely, the Venetian Resort, where a sloped moving sidewalk lifts pedestrians from the Las Vegas Strip, transporting them through full-scale re-creations of the San Marco Campanile and the Doges' Palace facade, just behind a miniature, swimming-pool-blue "Lagoon." Inside are acres of casino and a shopping mall: a mini Venice complete with gondola rides, beneath an ever-changing sky projected onto the curved ceiling's dry wall and sprinkler heads.

Hiring big-name architects has become part of the game as Las Vegas strives to upgrade its image with expensive shops and spin-offs of high-end restaurants. For this improbable commission, Mayne's Santa Monica–based firm, Morphosis, created a place of fantasy, but one that departs radically from the local norm. Rather than stoop to the level of pastiche to fool the eye,
Tsunami Restaurant

At Tsunami, canted, folded wall planes and ceilings, all bearing huge photomurals, enhance the spatial complexity and dynamism (this page and opposite).

these architects set out to engage the body and imagination with two unexpected and unusual spaces.

The chic Tsunami Asian Grill, serving trans-Asian cuisine, stands just off the “Grand Canal” shopping mall, while downstairs, in a corner of the vast casino, is Lutèce, sister of the exclusive New York restaurant by the same name. Morphosis set out to provide two retreats from the Venetian’s noise, constant activity, and visual chaos. At Tsunami, the architects play with folded planes and surface treatments bearing pictorial content, rather than pattern or texture. At Lutèce, they continue the experimentation with spatial manipulation that has been a Morphosis hallmark for two decades. In each case, the firm collaborated with an artist to enhance the project’s spatial complexity and physical richness.

Tsunami’s glass-and-steel facade is set within an elevation along an interior stretch of the “Grand Canal;” just as Modernist designs are inserted into old structures of the real Venice. Diners can sit at the restaurant’s floor-to-ceiling window and watch serenading gondoliers pole U-turns at the canal’s end or see tourists snapping photos of each other in “Venice.” Further inside the 10,000-square-foot, 326-seat restaurant, however, it is possible to be swept away by an otherworldly atmosphere.

Here, Morphosis worked with graphic artist Rebeca Méndez to submerge the restaurant in a standing tidal wave of huge, barely discernible photographs, applied to folded walls and angled ceilings that project into the deep, 28-foot-tall space. A long sushi bar, ramp, stair, and a series of dining spaces further emphasize the relative depth. The spatial continuity, however, is broken by level changes, resulting in several smaller, intimate, dining areas. A mezzanine, with seating and an open kitchen, covers three quarters of the main floor, and a portion of the principal dining area is raised a half level in the back. Perforated-steel guard rails veil these spaces from one another, allowing glimpses of light, color, and activity.

The steel stair, which dominates the space and greets customers at the entrance, was conceived as a body suspended within the multiple floor levels and layered imagery. Unfortunately, budgetary restrictions eliminated its intended perforated-steel skin, and the leftover armature—exposing the mystery of the treads’ backlighting—appears unfinished and awkward in the otherwise mysterious and unabashedly beautiful space.

With guard rails, floors, ceilings, original walls, and the folded planes’ flat edges painted a deep charcoal gray, the restaurant's only color comes from the slightly pixilated photographs. Muted reds and pale yellows dominate the front part of Tsunami, while cooler blues and violets take over toward the rear. The images are generally large—up to 140 feet long—electronically manipulated, and not quite legible, except for a phantom woman’s face or tree branch or flower. Toward the back of the space, though, the murals become more readable and figurative, sometimes with Asian themes. Along the steps to the main dining area’s raised half-level, a high-resolution, unmanipulated photograph shows people at twice lifesize staring out, giving the wall plane an unexpected three-dimensionality.

Despite the dynamic pitching of ceilings and photograph-covered walls, Tsunami Asian Grill has a serene atmosphere—in contrast to the apparently calm, more exclusive Lutèce, which reveals disconcerting aspects on closer inspection.

The door to Lutèce is easy to miss in a corner of the Venetian casino. Marked by a small awning, the subtle entryway discreetly pulls
Graphic artist Rebeca Méndez created Tsunami's “standing tidal wave" of computer-manipulated imagery (right) that proceeds from reds at the front of the restaurant (opposite) to cooler blues toward the back.

1. Dining
2. Pick-up counter for open kitchen
3. Sushi bar
4. Bar
5. Ramp
patrons from the surrounding visual chaos and jangling slot machines, through heavy bronze doors, etched with an analytical plan of the restaurant, into a hushed realm of elegance. Unlike Tsunami, where the expanse of space is immediately exposed, Lutèce hides its dining area behind the curving outer wall of the drumlike form that contains it. Patrons are greeted, then escorted around the drum’s edge to an opening, unmasking the spare, sophisticated central room.

The 290-seat, 4,600-square-foot restaurant is not, however, as vertical, or centered, or completely removed from its outside world as it initially seems. Within the circular volume, clean white walls appear to spin outward, while bands of bronze step inward as they spiral around the edge. This geometry of tilting and sliding keeps the eye in constant motion around the restaurant. Hanging oddly off center in the main dining area’s tall drum is a quirky, machinelike chandelier, also surfaced in bronze strips and sporting exposed spotlights. The black ceiling and floor disappear against the contrasting, brightly lit white walls, while the white-linen-covered tables float visually. Large, sculptural, pointed forms intrude overhead. A wall of wine racks slides behind a sleekly curving glass wall in a slot of space behind the drum, where a bar serves patrons awaiting tables.

Openings in the drum at first seem haphazardly placed. A

Project: Lutèce Restaurant
Client: Ark Restaurants Corporation
Architect: Morphosis—Thom Mayne, AIA, principal; Kim Groves, project architect; Brandon Welling, project designer; Ung Joo Scott Lee, Josh Coggeshal, Ben Damron, Peter

Vrćibrad, Martin Jost, Henriette Bier, Jerome Daksiewicz, Devin McConley, Manish Desai, project team
Engineers: Joseph Perazelli and Martin & Pethy (structural); AE Assoc. (mechanical); MSA (electrical)
Contractor: Image Construction
smaller, more intimate, chocolate-brown dining room can be glimpsed off to the side. Behind a large cutout appears a tiny dining area, where floor-to-ceiling glazing unexpectedly reveals daylight and the tracery of the “Doges’ Palace” facade with the “Lagoon” and the Las Vegas Strip beyond it. A low, horizontal aperture allows artist Do-Ho Suh’s sculpture, just below the floor, to sweep from the looking area into the dining room. Here, 19,000 4-inch tall, cast PVC human figures support a 1-inch-thick ellipse-shaped slab of glass flooring on their upturned hands. Not coincidentally, 19,000 is the maximum population of the Venetian Resort.

Tensions between first impressions and later understandings of these two interiors echo Thom Mayne’s reaction to Las Vegas. At Lutèce, those who can afford to escape the clatter of Las Vegas are sheltered from it but subtly denied total comfort, as they dine on superb food within Mayne’s cheeky, surreal reference to an inverted off-center roulette wheel. At Tsunami, Asian cuisines are offered in an abstract, dynamic, but oddly soothing world apart. In the bleak and garish stage-prop world of Las Vegas, the physical immediacy of both projects is refreshing.

Sources
Paint: Hammerite (Tsunami and Lutèce); Dunn Edwards (Lutèce)
Wall covering: Large-scale print on Nutex canvas with gesso, printing by Supergrafx (Tsunami); Glat custom fabric panels (Lutèce)
Lighting: Targetti (Tsunami); Portfolio (Lutèce); Lutron controls (Lutèce)
Tabletops: Corian (Tsunami)
Steel: Royal Metal Works custom (Tsunami)
Doors: Republic (Lutèce); Collins (Lutèce); Dorma closers (Lutèce)
Ceilings: Armstrong (Lutèce); Interfinish acoustical (Lutèce)
Tile: Superior Tile and Marble (Lutèce)
Cabinetry: Collins custom (Lutèce); Valley Fixtures (Tsunami)
Glazing: Academy Glass (Lutèce); Pulp studios light wall (Tsunami)

WWW For more information on the people and products involved in this project, go to Projects at: www.architecturalrecord.com
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ARCHITECTS MAY BE PASSIONATE ABOUT EXTERIOR TENSIONED MEMBRANES, BUT DESIGNING THEM PROPERLY REQUIRES 3-D THINKING AND CAREFULLY TAILORED DETAILS.

By Wendy Talarico

Fabric in architecture captures the imagination. It conjures romantic images: tent canvas staked out in a forest or luxuriously draped curtains making shade for desert nomads. The sculptural shapes an architect can achieve with fabric—from taut, firm roof peaks to pillowy curves—cannot be accomplished with any other material. And the atmosphere inside a fabric structure is unlike that of a conventional building: The diffuse daylight, the acoustics, the shape of the walls or ceilings, even the way the air moves through the space are all different.

Todd Dalland, FAIA, and Nicholas Goldsmith, FAIA, of FTL Happold Design and Engineering Studio in New York City, are as entranced with tensile-fabric structures today as they were when they were first introduced to them in college; in 1971, Dalland made a kind of pilgrimage, hitchhiking from Cornell University to New York City to see Frei Otto’s tensile structure in the courtyard of the Museum of Modern Art. Goldsmith later worked with Otto in Germany.

The AFA Carport in Munich illustrates one of the main advantages of fabric—large areas can be covered using a minimal amount of structural material.

While some firms incorporate fabric in their design work, FTL Happold specializes in it. They design and engineer all types of fabric structures, from air-supported domes to tensile-membrane roofs. FTL Happold has even developed its own software for structural designs (as have a few other engineering firms and some of the fabricators, including Birdair in Amherst, N.Y.).

In addition to designing the structures, FTL Happold also gets about half its business from consulting with other architects who want to use fabric in their designs. Together with the British-based engineering firm Buro Happold, which is in partnership with FTL, the integrated staff provides the engineering, specifies the cutting patterns, or helps the architect develop the design. “We’re trying to show other architects that working with fabric is not that hard, once you try it,” Dalland says. But engineering a tensile-membrane structure is challenging, even though computer modeling helps in understanding the stresses and loads and in visualizing the finished product.

Fabric is more widely used overseas than in the United States, especially in Europe, Japan, Mexico, and South America, says Bruce Wright, editor of Fabric Architecture, a publication of the Industrial Fabrics Association International in St. Paul, Minn. That’s because there is a greater use of canopies and awnings in these countries to limit heat gain. Since air conditioning is often considered a luxury outside the United States, tensile-membrane roofs are popular because they allow daylight while providing shade.

CONTINUING EDUCATION

Use the following learning objectives to focus your study while reading this month’s ARCHITECTURAL RECORD/AIA Continuing Education article. To receive credit, turn to page 162 and follow the instructions.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Explain the advantages of using fabrics in a building’s design.
2. Describe which elements of a building may be made of fabric.
3. Identify the fibers and coating used for structural fabrics.

WWW For this and more continuing education go to: www.architecturalrecord.com
Digital Briefs

The first American virtual reality theater opens in Iowa • Apple unveils its next-generation operating system at Macworld Expo

Major advances in virtual reality technology

Iowa State University in Ames has created the first virtual reality theater in the United States, designed to immerse the user in images and sound. Opened on June 19, C6, as it is called, “is the first wireless, six-sided virtual reality theater,” according to Jim Bernard, director of Iowa State’s Virtual Reality Applications Center (VRAC).

Virtual reality uses computer images and sound to create environments that can be experienced as “real” by the user. Virtual reality technologies include head-mounted displays, virtual reality desks, and virtual reality rooms. Traditional cabling for gloves and headsets, essential tools that provide perspective and allow user interaction with images, will be replaced by wireless systems that will give users of C6 an unprecedented level of freedom within its walls.

“By going wireless, we can provide full motion so you are really immersed in data,” said Carolina Cruz-Neira, assistant professor of electrical and computer engineering at Iowa State and associate director of VRAC. “When you are in there you will forget which wall is the door.” Researchers will be able to walk inside buildings that no longer exist. “It will provide full, look-around capabilities,” Cruz-Neira further explained. “With architectural models like the Notre Dame cathedral, you will be able to look up and see the paintings and designs on the ceiling.”

C6 is a 10-by-10-by-10-foot room of workable space. High-resolution color images will surround the user via six rear-projected high-intensity projectors. Four wall projectors provide images directly on the surfaces. The ceiling and floor projectors will bounce images off mirrors before reaching the surface. The facility will use SGI Onyx2 computers running special software to create simulations, produce sounds, track feedback, and generate images. Six Barco projectors provide real-time 3-D images on the display surfaces. Ascension Technology’s wireless trackers allow users to interact with the virtual world.

Iowa State will continue to operate its existing VR facility, the C2, and will link the two facilities to explore distributed virtual reality. “This will allow researchers in two or more different facilities, which could be located in different places anywhere in the world, to share their experiences and help develop solutions,” says Cruz-Neira.

Many VR applications are already in use at VRAC, including a virtual library that provides an immersive environment for walking through and seeing the inside of famous and historic buildings in their original or intended form and structure. Another application is the Virtual Architecture Design Tool, called VADeT, which creates an immersive environment for interactive architectural design and enhances conventional sketching on paper. The Maze incorporates effects such as animation, lighting, and reflection, which are commonly possible only in frame-by-frame rendering, to create real-time visualization capabilities.

For more information, visit their Web site at www.vrac.iastate.edu/research/architecture. JFK

Apple’s next big thing

Apple’s next-generation operating system was announced at the Macworld Expo in New York, July 18–21. Called the Mac OS X, the system will be released in the first quarter of 2001 and is described by Apple as “not just another pretty face, but an industrial-strength modern operating system.”

Sean Flaherty, of Nemetschek North America, stated, “Mac OS X is projected as much more robust and powerful than previous versions, and I look at this as being a new foundation release, featuring increased memory protection and preemptive multitasking, which will be favored by VectorWorks Mac users.”

Nemetschek North America today announced its intention to support Mac OS X fully by releasing a Carbon native (a Mac program that’s been updated for Mac OS X) version of VectorWorks within 60 days of the launch of OS X. Although now cross platform, MiniCAD/VectorWorks, the company’s flagship product, originated on the Mac and has gone on to becoming the bestselling Mac CAD program.

The preview version of Apple’s next-generation operating system includes the final API specifications required by developers to complete upgrades of their applications to take full advantage of Mac OS X’s new capabilities. Mac OS X Developer Preview 4 also includes a version of Microsoft’s Internet Explorer 5 specifically for Mac OS X, and support for the Java 2 Platform.

“With this Preview release, developers now have everything they need to make killer applications for Mac OS X,” said Steve Jobs, Apple’s CEO. “We are incredibly pleased at the support we are getting from many of the world’s best software developers for Mac OS X, the future of the Mac platform.”

For more information, visit www.apple.com/macosx.

Jane F. Kolleeny

09.00 Architectural Record 173
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Project extranets give design professionals a reason to get wired

By Kathleen Maher

Project extranets are hot and getting hotter. Recently, their usefulness for architectural projects has soared. At the A/E/C Systems show in June, for example, the number of exhibitors offering extranet services had tripled from two years ago. The reasons are simple: the technology allows architects, designers, and engineers working in-house to communicate easily with outside contractors and to retrieve information when at home or in the field.

Essentially, a project extranet is a designated storage space on the Internet containing project-related information that can be accessed and modified electronically by project members. New products are continually being developed to facilitate more efficient project management online. Because extranets are located on the Internet, and therefore external to a particular office, the information they contain can be made available to any designated team member at any geographical location.

Mike Hnastchenko, director of technology at Ellerbe Becket in Minneapolis, and an enthusiastic proponent of project extranets, enjoys the immediacy that project extranets facilitate. “We have projects in Dubai and China and we can communicate across time zones,” he says. He feels that he is working more closely with his colleagues spread out all over the world.

According to Hnastchenko, those who take advantage of the technology will be able to communicate more efficiently and streamline their processes; those who don’t will be left behind.

With a staff of 800 employees scattered among 11 offices around the world, Ellerbe Becket began exploring project extranets more than three years ago in order to communicate more efficiently with design team members inside and outside the firm. Ellerbe had been using FTP (file transfer protocol), a function built into the Internet that lets users set up a mutually available site on the Internet from which files can be downloaded. Setting up an FTP site requires effort on the part of site administrators, and special software is needed to download files. “The job gets done,” says Hnastchenko about FTP, “but administration is clumsy, setting up access is clumsy, and the interface is very basic.”

Ellerbe Becket first investigated several different companies offering extranet-hosting services, but Hnastchenko came to believe that standardizing on one was an absolute requirement. “If you keep experimenting,” he said, “it’s a training nightmare for your users and it doesn’t promote collaboration.” Instead, he said, “everyone will be using something different, the very antithesis of what the technology was designed to accomplish.”

An AutoCAD house with a long relationship with Autodesk, Ellerbe Becket became involved in the development of Buzzsaw, Autodesk’s project extranet company, and is now a Buzzsaw customer.
Ellerbe Becket is redesigning its own Web site to link with Buzzsaw, thereby enabling one-stop communication for project members accessing Ellerbe Becket’s site.

The architects are pleased with Buzzsaw’s ease of use. Project members have no trouble accessing the site, even if they are not technically adept. Even more important, the project extranet sites are simple to set up. Site administrators can sign on for free, select a password, download component software that’s invisible to users, and set up a site in minutes. In contrast, other project extranet companies often require an architectural firm to register, create an account, then wait to be notified that it can set up a site. Worse, in some cases the notification process has to be repeated every time a new user is added to the list of project participants.

“IT’S JUST NOT REALISTIC TO EXPECT EVERY PARTICIPANT IN A PROJECT TO RELY ON A PROJECT INTRANET.”

Buzzsaw can offer this quick setup because it charges according to the amount of storage used and gives customers up to 100 Mbytes free. The added layer of administration required by other extranet companies comes from the necessity of setting up an account and some kind of payment plan from the start. Thus, though many projects can easily use many more than 100 Mbytes, the real attraction to Buzzsaw’s free storage is that it allows immediate initial setup, so architects and other team members can get to work right away.

Setting up with Buzzsaw, however, is not always smooth sailing. Ellerbe Becket, for example, wanted all their projects up and running on Buzzsaw as soon as possible. Hnastchenko therefore tried to transfer all 800 users associated with the firm to the Buzzsaw site at once. It crashed. Subsequently, the Buzzsaw team worked with Hnastchenko to develop tools that enabled him to make the transfer, which is now trouble-free.

Ellerbe Becket relies on Buzzsaw most heavily in the design phase of an architectural project. According to Hnastchenko, this is because architects and engineers are generally comfortable with the technology, and the greatest need for collaboration occurs in the early stages of a project. During design, the extranet is used primarily for drafting file exchange and review. The system accommodates all documents that normally accompany a project. When files are uploaded to a Buzzsaw site, team members are sent an E-mail notifying them that there’s new information online. Requests can be made to review, mark them up, make comments, and so on. It’s easier to keep track of drawing revisions on the extranet than in earlier communication systems—such as simply making a file available on an FTP site or sending it back and forth via E-mail—because the dates, times, and documentation are an integral part of the Internet system. At the end of a project, the documents can be stored on a CD as a permanent record.

When it comes to the construction phase of a project, Ellerbe Becket still relies on the more traditional, paper-based methods of communication. “It’s just not realistic to expect every participant in a project to rely on the project extranet,” Hnastchenko says. “For example, you can’t expect the carpet installer to be on the system. As you get further down the spectrum in a project, some of the efficiencies diminish.” Stereotypically, people involved in the construction phase of projects have not as much technology.

A 450-person firm with headquarters in Houston, 3D/International (3D/I) enjoys being on the cutting edge of technology. The company experimented with project extranets and, in fact, built its own extranet sites for individual projects. But 3D/I, like Ellerbe Becket, relies on AutoCAD and therefore gravitated toward Buzzsaw. Vice President of Industrial Development Alvaro Rizo-Patron finds that Buzzsaw provides a simpler solution that lets the firm pick and choose the features it needs while reducing the administrative burden that comes with building and maintaining in-house sites.

Unlike Ellerbe Becket, however, 3D/I finds project extranets most helpful in the construction phase of a project. 3D/I specializes in a project-delivery method known as “bridging,” in which the architectural firm acts as a representative of the owner; it hires outside contractors and assumes responsibility for overall project management.

The architecture firm began using project extranets to communicate with Mexican contractors during the construction phase of the Johnson Controls automotive systems division plant, a 186,000-square-foot project located in Reynosa, Mexico (see sidebar). The architects relied on the firm’s internal systems during the earlier phase of this project but found Buzzsaw to be extremely helpful when long-distance communications became necessary between the construction

Extranet Web sites abound

The number of companies offering services falling under the heading of project extranets has multiplied geometrically. It’s been estimated that there were about 30 extranet companies at A/E/C Systems in 1999 and this year the number has risen to 150. RECORD contributing editor and consultant Jerry Laiserin, FAIA, who has been studying the field, says that there are as many as 600 companies that fall under the broad heading of extranet services. They cannot all survive. Next year, will there be 250 companies, or 75, or 25?

Architects and engineers, already resistant to process-control measures, are not likely to welcome these systems simply because they’re on the Internet, but they do value the ability to exchange files, as well as file viewing and mark-up.

Project extranets have an advantage in their accessibility and the universality of the Internet. It’s easier for teams from different companies to access a central site using the Internet browsers they’re already comfortable with. Also, it’s easier to sample a subset of services. Extranet companies offering these services will learn from their customers. Companies that can tailor their services to the ways in which their customers use the basic features of project extranets will be the ones that survive.

We have provided a representative list of Web sites at ArchitecturalRecord.com for your perusal. They were chosen in the interest of demonstrating the wide variety of services and approaches to project extranets. If you are interested in further research into project extranets, take a look at Web sites for Tenlinks, the AIA, Extranetnews, and CADALOG. K.M.
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site and the home office. Construction drawings were uploaded to the extranet and then downloaded and plotted on the site.

Although Rizo-Patron admits that computer use is less common among contractors than among architects and engineers, 3D/I simply makes it a condition of employment. “We seriously consider whether we will work with a company that is not Internet-savvy,” he says. Yet, even when the firm does work with companies and individuals who are not particularly knowledgeable about computers, the architects at 3D/I have found it easy to get those people to use a simple system like Buzzsaw right away.

THE ABILITY TO EXCHANGE FILES OVER THE INTERNET IS CAUSING A MAJOR CHANGE IN THE WAY PEOPLE WORK.

The Gilbane Building Company is a 125-year-old construction firm that frequently works on large, fast-tracked projects all over the country. As a major contractor, it faces the same challenges architectural firms do in meeting project deadlines and budgets. Gilbane decided to build online collaboration utilizing their existing project management system, Prolog Manager by Meridian Project Systems. Meridian’s integrated Internet collaboration module is called Prolog WebSite, and it uses a browser interface as the front end for users.

Gilbane used Meridian’s Prolog WebSite to link team mem-

3Plant for Johnson Controls

As the client’s representative, 3D/International (3D/I) is relying on Buzzsaw to facilitate communication during construction of a plant in Reynosa, Mexico, for Johnson Controls’ Automotive Systems Group. The 186,000-square-foot factory, scheduled to be completed in October 2000, will build automotive seat tracks.

Before construction began, 3D/I set up an on-site office, fully equipped with computers and Internet connections, with three full-time 3D/I employees. In the first stages of the project, construction drawings were being exchanged via E-mail between 3D/I’s San Antonio office and Reynosa. However, by the time the construction crew was ready to move earth, San Antonio–based designer David Ramirez had become increasingly frustrated with the communication process. E-mail was inefficient since it depends on people sending and checking E-mail on time. In addition, E-mail offers no revision control. Often Ramirez wasn’t sure if the builders received the most recent information, let alone if they were in fact working with it.

So Ramirez decided to travel to Mexico to help coordinate the construction process. Around the same time, he learned about Buzzsaw and decided the project extranet site was a possible solution to his problem. In Reynosa, Ramirez logged on to the Internet, created a site for the Johnson project, and, within minutes, called the home office to tell them to put the most recent drawings on the site.

This kind of immediacy on the part of project extranets is what appeals to architecture firms. The site gives all parties the ability to see the most recent drawings as soon as they’re uploaded to the Web site.

According to Alvaro Rizo-Patron, a project extranet’s biggest drawback revolves around the question of whether an extranet should be used as a file-transfer site or as the primary location for maintaining project files. Specifically, a full-service architectural firm like 3D/I uses an intricate and detailed directory structure that helps them organize complicated projects. It’s not practical for 3D/I to recreate that directory structure on the extranet site because this would require uploading a large number of files that do not need to be shared. Furthermore, the construction company doesn’t have the time or inclination to learn the directory structure of every architectural firm with which it works.

Ideally, 3D/I would like to create an extension from the Buzzsaw extranet to its internal directory structure. However, because that has turned out to be impractical and because the company has elected to use Buzzsaw primarily for file exchange, 3D/I instead opted to create a simpler directory on Buzzsaw. This, however, adds an extra step to the firm’s process: 3D/I has to move drawings from its in-house directory, rename them, and insert them into a separate directory that is then uploaded to the Internet.

For sure, it’s an added chore, explains Rizo-Patron, “but it’s not going to kill our use of Buzzsaw.” The advantages of project extranets far outweigh this inconvenience. K.M.
"Signifying a new age of dynamic movements, exciting advantages, and ultimate fun, the Sport City is a stage... Its form is derived from the shape of the human heart. Twisting, bending, and overlapping, the two organic glass tubes in the center move like the rushing red blood cell in our arterioles..."

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bers in the recent $12-million, 150,000-square-foot BassPro Retail Shop in Houston. Kathy Kearney is Gilbane’s Information Systems Manager. She is putting Prolog WebSite to work tracking information related to the project including drawing documents, work journal entries, notices to comply, RFIs and meeting minutes. From the site, the construction team uploads digital photographs of the project, eliminating the need for faxes or couriers.

For this project, Gilbane has signed up for 10 licenses of Prolog WebSite to link the architect and project owner located in Missouri, with contractors located throughout Texas, and inside project staff members at Gilbane. Ease of setup is as important to Kearney as it is to Mike Hnastchenko of Ellerbe Becket and to the 3D/I team. Kearney found it easy to integrate with Prolog WebSite, unifying it into her project management system. She says, “Once the initial setup of a project is completed in Prolog Manager, the project is then added to the Web site while designating the requested project specific categories and verifying user access settings.” Once this stage is complete, the ongoing maintenance and administration of the site is minimal, she says.

**Bells and whistles**

The many project extranet providers offer a large menu of services from which to pick and choose. In addition to the basics—file exchange, mark-ups, and comments—a firm can take advantage of project management; PIMs (personal information managers with calendars, address books, and memos); online visualizations, including animated walk-throughs; video collaboration; and Web cams to monitor construction progress. The extranet providers’ home sites are evolving into discipline-specific portals that offer custom-tailored services such as bidding on construction supplies or facilities management (see table for a listing of sites and their areas of specialization at architecturalrecord.com).

It seems, however, that few firms are taking advantage of the more elaborate bells and whistles. When asked if he would use a Web cam on-site to monitor construction progress, 3D/I’s Rizo-Patron said that such real-time monitoring is not practical, given the limitations of bandwidth and the huge load that video puts on both internal and Internet networks. Usually, all one can see with such Web-cam systems are a few frames per second of low-grade video. Instead, Rizo-Patron prefers still shots uploaded at regular intervals.

Likewise, even though Ellerbe Becket creates visualizations with 3D Studio MAX, Hnastchenko does not see the need to make walk-throughs and animations available on the project extranet since the files are large and looking at animations over the Internet can be a slow, frame-by-frame experience. Both 3D/I and Ellerbe Becket make visualizations of 3-D models available to team members. As for more sophisticated project-tracking and project-management capabilities offered by project extranets, Hnastchenko points out that Ellerbe Becket has its own project-management system already established in-house, so it has no need for a similar capability from Buzzsaw. Ellerbe Becket only uploads drawings onto the extranet after they have been signed off internally.

For Gilbane, on the other hand, the use of the Internet for collaboration is an integral part of the project management process. Also, like 3D/I, Gilbane finds the ability to upload digital still photos to be very valuable.

Taking the capability one step further, Meridian has support for the 360-degree digital photos created using the IPIX system. IPIX uses a special camera attachment that lets users take two 180-degree images with standard digital cameras that can be stitched together. These photos let users see all around a construction site.

So far, the broadest use of project extranets today is simply for file-storage viewing and file transfer. That may not sound revolutionary, yet the ability to exchange files over the Internet is causing a fundamental change in the way people work: gradually, the locus of control is moving ever farther from the local desktop machine. The evolution of the Internet as a vast central storage site makes access to the information possible anytime, from anywhere in the world. As Mike Hnastchenko puts it, “We are setting up a system where collaboration can happen.”

**WWW** For a representative list of Web sites demonstrating a wide variety of services and approaches to project extranets, go to Digital Architect at: www.architecturalrecord.com
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Architects Explore Uses for Innovative Offline Web Pages

By Evan H. Shu, AIA

Creative thinkers love to find new uses for tools, uses that their makers may not have originally intended. These days, many architects and designers are finding new ways to use Web browsers, those ubiquitous software programs such as Netscape Navigator or MS Internet Explorer that are installed on most computer systems today to surf the Internet. Surprisingly, many of these new opportunities have nothing at all to do with being connected to the World Wide Web or to the Internet.

Some background on browsers

It is important to understand that, for all the fancy Web page graphics it shows us in our forays into the Internet, a Web browser is, in essence, nothing more than a fancy text-file viewer. It literally does nothing more than open up a simple text file, much like a word-processing file, and display it on a computer screen. What appear to be complex search functions are not done by Web browsers at all but by sophisticated search-engine software programs that exist on the Internet itself. Plug-in modules can further enhance Web browser capabilities to play audio, video, or animation files, but it is useful to remember that, at its heart, a Web browser is a text-file viewer.

Furthermore, a Web page can be thought of as a computer file comprised of unencoded or “plain” text that is formatted with additional special HTML tagging language. The HTML coding allows both text and graphic images to be displayed in various and enhanced ways.

The Web browser sees no difference between a Web page that it opens on your hard drive and one that it gets off the Internet. If a plain text file on your computer has either an HTM or HTML file extension (for example, TESTPAGE.HTM), it becomes a Web page; you can click on it with your mouse and your Web browser will immediately take a look at it. So Web pages can exist online on a server tied into the Internet or just as easily offline on your own computer system.

Although Web language (HTML) is fairly rudimentary (for example, <B>Headline</B> makes the word Headline appear in bold lettering), most people would rather not get into the nitty-gritty of writing directly in Web language. Fortunately for them, there are many software programs now that can directly export from a word-processing or desktop-publishing document into Web format. In fact, many of the current standard word-processing software programs, such as Microsoft Word, routinely show a choice in their File menu that says “Save as Web Page.” So creating Web pages is now just a simple matter of creating a typical page in your word-processing software and then saving it in Web format. One does not need to get training in HTML programming at all (although such training certainly helps in trying to “fix” mistakes in those automated exports).

The key element that makes Web pages so versatile, whether they are found online or offline, is that any word, phrase, or picture on that page can be made into a link; when clicked on with your mouse, this link sends you to another Web page or opens a specified file. This linking ability is the essential quality that puts the “web” into Web page. The versatility of linking Web pages has led to a number of new offline uses that are proving to be extremely useful to many architects.

Office manuals and handbooks

According to Donald R. Parker, AIA, of Parker Associates in Russellville, Ala., offline Web pages are the perfect medium for in-house office and CAD handbooks: “It’s quicker and easier to find information than in three-ring binders because related topics can be linked. The pages don’t get torn or lost. Several people can view the same information at the same time. And, with no multiple copies, Web pages are easier to update than paper manuals.”

Evan H. Shu, AIA, principal with Shu Associates Inc., an architectural firm in Melrose, Mass., is editor and publisher of Cheap Tricks, a monthly newsletter for DataCAD users.
Web page presentations may be the solution. These give the designer much more freedom in creating a customized look. Think of the enormous variety of looks and formats that can be found in Web pages on the Internet; that same creativity can be applied to design presentations in Web page format offline. Web pages can easily display the standard plans, details, and photos of a typical presentation. And, since Web pages can be designed to link to other file media, one can use so-called Web page plug-ins to load dynamic 3-D CAD models, or play audio, video, and animation files for a true multimedia effect.

David Porter, of Porter Associates in Palm Beach Gardens, Fla., has recently found much success in doing Web page presentations on his laptop. Instead of toting the typical slide projector for their design presentations, now more architects are bringing along computer projection devices if need be. In fact, it is more commonplace to find modern presentation rooms that are already computer-ready. “In my town’s city hall, an architect can just bring in his or her laptop (no more boards or unwieldy prints), plug in, and away the presentation goes, using browser pages and projecting the images onto a screen in the assembly room.”

Porter, who has had clients find and hire him via the AIA’s online Web page (which includes a list of contacts and links to the architects’ Web pages), says that more and more such clients are very familiar with Web-browsing software. Now he will even E-mail them a “Web page package” (a set of files that they can access offline with their Web browsers) to view the design presentation on their own comput-
Parker Associates has its CAD standards manual in Web format on its network, and any designer can readily access the plotting standards in an instant. At the click of a button, the "Accessibility Guidelines for theADA guidelines" module, illustrations and all, can be copied to the firm's network that has the "Accessibility Guidelines for Buildings & Facilities" from Title III of The Americans with Disabilities Act (ADA), illustrations and all, ready for viewing at the touch of a button. Anyone who has waited through long server delays, experienced Internet traffic bottlenecks, or had connection problems with an Internet Service Provider that made online Web pages slow to load or, worse yet, simply unavailable, can appreciate how much time can be saved by having these Web pages available offline. Space usage for storing both text and graphics is usually not a big problem. For example, Parker's ADA module, illustrations and all, takes up only four megabytes total.

Collecting and creating these offline Web pages, says Parker, "pays for itself in time saved in the first couple of uses. This method creates searchable and fully linked paragraphs, figures, and appendixes. No more fumbling through the pages of the ADA; you can find the information you need—from "knee space" to "ramp"—in seconds by using your Web browser's simple Edit and Search commands. By staying offline, you are not at the mercy of Internet traffic that may delay or block your keyword search online.

THE VERSATILITY OF LINKING WEB PAGES HAS LED TO NEW OFFLINE USES THAT ARE PROVING TO BE EXTREMELY USEFUL. Parker's "ADA module" on his network that has the "Accessibility Guidelines for Buildings & Facilities" from Title III of The Americans with Disabilities Act (ADA), illustrations and all, ready for viewing at the touch of a button. Anyone who has waited through long server delays, experienced Internet traffic bottlenecks, or had connection problems with an Internet Service Provider that made online Web pages slow to load or, worse yet, simply unavailable, can appreciate how much time can be saved by having these Web pages available offline. Space usage for storing both text and graphics is usually not a big problem. For example, Parker’s ADA module, illustrations and all, takes up only four megabytes total.

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ers. While clients may require special training to use the complex graphic-viewing software required for CAD or rendering files, they immediately know how to display any view of their choice from the Web page package. And, unlike simply running a "canned" presentation, they have the freedom to show other views in the order that they choose. "Being able to see all around and into their projects by using a medium they have become familiar with has brought my clients into the design process more so than with a paper presentation that they might not grasp as well."

This methodology also created another unforeseen benefit: "The Web page made their project very personalized," Porter said. "I think it is like seeing oneself on TV. By pulling up their project with its multiple views onto their computer monitor, it gives them a personal feeling of pride and excitement that they are looking at what their completed project would look like. They can show their friends their project on the screen as well . . . like 'baby pictures.'"

Such a portable and self-running presentation came in handy when board of appeals staff members, in preparation for an upcoming hearing, visited one of Porter’s residential clients. The client dragged them inside his home and proudly showed them the Web page design presentation of the project on his computer. This "owner-operated" presentation no doubt helped to fuel the positive staff report leading to a favorable outcome at the hearing.

**Code reference**

In-house Web pages are also playing an increasing role in maintaining code and other informational resources. Many resources that are found online via the Internet can be simply "right-click" copied to the firm's own system for later viewing offline. For example, Parker has created an "ADA module" on his network that has the "Accessibility Guidelines for Buildings & Facilities" from Title III of The Americans with Disabilities Act (ADA), illustrations and all, ready for viewing at the touch of a button. Anyone who has waited through long server delays, experienced Internet traffic bottlenecks, or had connection problems with an Internet Service Provider that made online Web pages slow to load or, worse yet, simply unavailable, can appreciate how much time can be saved by having these Web pages available offline. Space usage for storing both text and graphics is usually not a big problem. For example, Parker’s ADA module, illustrations and all, takes up only four megabytes total.

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Parker Associates has its Office Handbook and CAD Manual in Web format for easy access by all stations of its network.

**Parker Associates Web Home Page**

- Welcome to our new office Web! Improvements & enhancements will occur as time allows.
- Click on the hypertext in the gray boxes on the left to view that information.
- Use the "Home" hypertext or the "Back" button at the top of your browser to get back to this page.

**Very Urgent: Projects**

**Table of Contents**

- Preface
- Organization & Philosophy

**Office & Administrative Policies**

- Office Hours
- Overtime & Compensation
- "Unscheduled" Time Off
- Time Sheet Policy
- Pay Period & Paychecks
- Travel & Lodging Expenses
- Address Road Conditions

**Code or design references like the ADA can be saved and stored for in-house use by offline Web browsers.**

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**Detail libraries**

As more and more CAD programs allow users to create thumbnail views of CAD drawings, Web pages can also be created to serve as detail library directories. The ability to combine text with pictures that immediately link to other resources is invaluable to the architect who is trying to pull it all together. David K. Sargent, an interior designer with Sargent Design Associates in Springfield, Mass., is a big supporter of this method:

**COLLECTING AND CREATING OFFLINE WEB PAGES PAYS FOR ITSELF IN TIME SAVED IN THE FIRST COUPLE OF USES.**

"You can easily view and access your detail drawings, as well as quickly go to hyperlinked specifications, codes, and even manufacturers."

An architect no longer has to decipher a long, forgotten CAD filename; that filename now can be associated with a thumbnail picture and a full description of the detail in question in a Web page table of contents for the firm's detail libraries.

**Design competitions**

Web page technology is also uniquely suited to developing presentations for time-sensitive design competitions. Consider the annual 3-D CAD Shootout, hosted by Geoff Langdon of Architectural CADD Consultants of Beverly, Mass. A design project program is given to three-person teams, who then have three hours to produce a full design presentation. In years past, well-prepared teams created in advance Web page templates that had blank slots for the required views in order to preplan an organized and thorough presentation format. Since these numerous required views were specified in advance, these teams could fully prepare their Web page templates with attractive titles, logos, and notations. While other teams scrambled to put their renderings and plans together in some coherent fashion, these "Web template" teams earned very high marks from the judges for their thoroughness and attractive presentations. Such extreme time-pressed presentations are not the norm, but architects looking to avoid haphazard and last-second presentation formats can similarly prepare Web page presentation templates in advance.

**Spreading the links**

One added benefit of this innovative approach is that such offline Web pages are easily shared as resources for others to use or else as templates to modify. Parker has already donated his "OfficeWeb" modules for office policies, CAD handbook & ADA reference to a DataCAD shareware service (www.world.std.com/~eshu/ctw/ctw.htm), and Porter intends to do the same with his Web page presentation templates. As other architects become familiar with and take advantage of these techniques, we are bound to see additional Web page applications. The opportunities may only be limited by the architect's own design creativity.
Digital Architect

Technology enables disabled architects

By B.J. Novitski

When Joseph Del Vecchio graduated from the Rhode Island School of Design in the mid-1980s, he was blocked from pursuing a routine architectural internship. Even if he had found a local office accessible to his wheelchair, he would have been unable to reach over the large drafting boards that were routinely assigned to apprentices in those days. In addition, seemingly simple tasks, such as getting in a car and driving to a meeting, were tiring and time-consuming. Thus he would not have been able to work the grueling hours normally expected of architectural interns. So he and his wife, Christina, also an architect intern, established a home-based business and began to explore ways that emerging computer technologies could help them compete.

They adopted Sonata, an early 3-D parametric building modeler developed in Europe. Because the modeler could automatically generate 2-D drawings, the software greatly reduced the time needed for drafting. The Del Vecchios were also early experimenters with virtual-reality modeling language (VRML) 3-D modeling. Using this system, they could quickly produce models of designs-in-progress, send them to clients over the Internet, and "walk through" the design without inconvenient travel. Soon they will begin using digital photography in construction administration. Anyone at a job site can send photos or video of a problem, which the architects can receive and view over the Internet.

In the 16 years since finishing school, the Del Vecchios have leveled the playing field and formed Access Development Corporation. "The information age is working handsomely for those people who are profoundly disabled," says Joe Del Vecchio. "I'd probably not be where I am today without it." Despite his mobility limits, he is a successful architect; his clients are the happy beneficiaries of hard-earned lessons about accessibility, efficient use of space, and technology. Indeed, his firm has as much work as it can handle.

Also successful, but having overcome different barriers, is hearing-impaired architect Robert Nichols. He is principal of the award-winning Nichols Design Associates in Washington, D.C. He notes that many architects believe that accommodating wheelchairs is all there is to accessibility. The simple yet overlooked installation of teletype-equipped phones and captioned PA systems in public spaces can go a long way. Nichols' sensitivity to this, along with his ability to communicate with hearing-impaired clients, has let him carve out a niche in accessible public accommodation. Recently, his ability to communicate has been tremendously boosted by the advent of E-mail.

Thanks to technology and efforts to encourage disabled youth to join design professions, the success of Nichols and the Del Vecchios may soon be more common.

Starting out the hard way
It was not too long ago, however, that the situation was very different. In the early 1980s Washington State University professor Jeffrey Burnett began to adapt computer equipment for quadriplegic architects. He outfitted them with then-state-of-the-art PCs and cobbled together head-mounted pointing devices to control the screen cursor. He programmed some voice-recognition capabilities to operate CAD systems and even experimented with robotic arms to handle floppy disks. Though effective in returning a few injured architects to practice, Burnett's heroic work was hampered by the available hardware, which was primitive by today's standards. Now, he says, technological improvements have come to the aid of limited-mobility architects. These include more powerful processors, higher-capacity yet cheaper mass storage units, wireless communications bringing E-mail to the wheelchair-mounted laptop, and standardized adaptive peripheral devices.

Examples of these peripheral devices are single-handed keyboards, a trackball to replace the mouse, and lightweight headset pointers. Despite great progress, Burnett says, work still remains to make all these devices work smoothly with the specialized software that architects use. Such integration requires the efforts of experts familiar with the technology, the nature of disabilities, and the requirements of architects.

Recent adaptive innovations
Key to an architect's skill is the ability to write, but for those with limited use of their hands, taking notes at a meeting and typing on a keyboard
can be difficult or impossible. For them—and indeed for any architect who has trouble typing—there is good news in the field of voice recognition. Although voice commands have offered a feasible but limited interface to computer software since Burnett’s pioneering days, until recently these systems were highly flawed. They often required careful, unnatural speech, with pauses after every word, and the error rate was high. Now speech-recognition systems are taking advantage of today’s higher computing power, and they can convert naturally spoken speech into nearly error-free word-processed text.

One such system is NaturallySpeaking, from Dragon Systems, Inc. It “takes dictation,” and subsequent editing can also be controlled by voice. Dragon’s new handheld digital recorder can be taken into meetings and used to capture an unlimited amount of speech on removable memory cards. Later, the recorder can be plugged into a PC and automatically transcribed. Unlike older voice recognition systems, Naturally-Speaking does not require pauses between words and can be “trained” to recognize idiosyncratic speech, including that of stroke victims or people with speech impediments.

This is only one of the many adaptive devices available through Infogrip, Inc., a catalogue distributor of various adaptive devices. They also feature HeadMaster, manufactured by the Prentke Romich Company. This is a lightweight, wireless, infrared mouse emulator that can be mounted on a headset or eyeglasses frame. Slight head movements move the cursor around the screen. Users with no hand mobility can use it in conjunction with a sip-puff mouth switch to simulate mouse clicks. These devices replace the usual manual methods of interacting with computer-aided design systems. For architects with limited manual dexterity, there is an array of joysticks and trackballs that are simpler to use than mice. These are also enjoyed by the “temporarily abled” who wish to avoid the repetitive-motion injuries resulting from prolonged PC use.

Infogrip also sells Jotto Desks, which turn a wheelchair into a mobile office. These are, in effect, desk surfaces on which laptops, cell phones, and other equipment are mounted with industrial-grade Velcro. The wheelchair user can swing the desk to one side when moving in and out of the chair.

Mentoring the next generation

With all the adaptive technologies available now, there are fewer physical impediments to the disabled becoming architects. However, some cultural hurdles remain: There are few visible role models for young people to follow. This is about to change thanks to Elaine Ostroff, co-founder of the Adaptive Environments Center (www.adaptenv.org) in Boston. She is initiating a mentoring program to connect disabled design students and new professionals to practitioners with matching interests. The mentorship, she believes, will help the younger generation address the physical, attitudinal, and practical roadblocks between them and their careers.

Ostroff’s program is part of “Access to Design Professions,” an international career-development program created as a living memorial to pioneering disabilities activist Ron Mace, FAIA. It is being funded by the National Endowment for the Arts and by NEC Foundation of America. The mentorship program was jump-started at the biannual Designing for the 21st Century II: An International Conference on Universal Design, held in Providence in June. There, a group of disabled architects and designers from all over the world met to discuss the importance of, and mechanisms for, mentoring young designers. Once again, technology is rising to the occasion. Because there are relatively few disabled practicing architects, and they are scattered all over the world, Ostroff will be arranging for both the matching and the mentoring meetings to occur on the Internet. A secure online directory will help would-be participants match interests and develop working relationships.

Ostroff is also seeking funding for a project to help students identify the level of access at design schools before they apply. Anecdotal evidence suggests that, despite years of improvements in campus accessibility, architecture schools and studio environments remain problematic.

Of double significance

As important as it is to promote professional diversity, this concerted effort to get more disabled people into architecture careers will ultimately accomplish more than that. Behind this effort is the conviction that disabled architects are more sensitive and creative designers of universally designed environments. There is probably no more effective means of becoming sensitized to accessibility issues than to have personal experience confronting environmental barriers. Indeed, according to Valerie Fletcher, the current executive director of the Adaptive Environments Center, this explains why there is a high level of interest in design among disabled youth. They also tend to be skilled and experienced problem solvers. The faster they can join the profession and raise the awareness of the rest of us, the sooner the built environment will become universally accessible.

Web site technology sources

Infogrip, Inc.
1141 E. Main Street
Ventura, CA 93001
805/652–0770
800/397–0921
Fax: 805/652–0880
http://www.infogrip.com

HeadMaster 2000
Prentke Romich Company
1022 Heyl Road
Wooster, OH 44691
800/262–1984
http://www.prentrom.com

NaturallySpeaking
Dragon Systems, Inc.
320 Nevada Street
Newton, MA 02460
617/965–5200
FAX: 617/965–2374
http://www.dragonsys.com

Jotto Desk
Assembled Products Corporation
115 East Linden Street,
Rogers, AR 501/636–5776
Fax: 501/636–3245
U.S. and Canada: 800/548–3373
http://www.assembledproducts.com

WWW For a list of vendors with technology products for disabled people, go to Digital Architect at: www.architecturalrecord.com
Digital Reviews

New tech tools for diverse practice

By Jerry Laiserin, FAIA

Pocket-size helper
Prolog Pocket, Meridian Project Systems

Prolog Manager has long been one of the best software tools for managing logs, lists, and overall administration of the construction phase—everything from field observation notes to punchlists. But Prolog resided on the office PC or laptop, while all the activities took place in the field. That left project architects to scribble longhand or dictate onto tape for subsequent transcription. Lots of duplication and opportunity for error.

The new pocket edition, part of Meridian’s Project Pack, solves these problems by scaling down the Prolog data-entry and retrieval interface to the handheld form factor of WindowsCE and Palm computing hardware. Project architects can enter notes and step through forms via the touch interface to the tiny screens while in the field, then synchronize, via wired or wireless connection, to the full-scale Prolog Manager software running on a PC back in the office. A time-consuming and error-prone manual process becomes digitized, saving money and time, and ensuring quality.

System requirements: Windows CE2.0 or better, or Palm III or better, for handheld device; Windows 95/98/NT4.0/2000 for desktop or laptop PC. Meridian Project Systems, 1750 Howe Ave., Suite 1133 Westchester Ave, White Plains, N.Y. 10604; 800/IBM–7255; www.ibm.com.

Contributing editor Jerry Laiserin, FAIA, provides strategic consulting services to architects and their technology providers.

Back in black
IBM Intellistation M Pro PC

Throughout the history of computers, IBM was considered a safe choice for hardware. “Nobody ever got fired for choosing IBM,” so they said. Yet for much of the 1990s IBM seemed to have lost its way, peddling lackluster machines with noncompetitive pricing and performance. The current Intellistation lineup of workstation PCs represents a successful rebound.

As tested, the Intellistation M Pro comes equipped with a screaming 866 MHz Pentium III processor, a generous 256MB of RAM, and an ultrafast 9Gb SCSI hard drive. The pièce de résistance is an optional ELSA Gloria OpenGL video display adapter, driving IBM’s sinfully lush, flat panel monitor. This configuration handily disposes of even the most demanding CAD chores and desktop publishing duties.

Intensive users of photorealistic visualization tools, such as Photoshop, Lightscape, and 3D Studio, or large firms looking for a few high-end “graphics stations,” might consider trading up to the Intellistation Z Pro, for its intense Wildcat 4110 video display adapter, but the M Pro is more than sufficient for 90 percent of the work that 90 percent of architects do.

While competing machines, such as the Dell Precision series, include similar components and comparable specs, IBM’s all-black Intellistation excels in what automotive folks call “fit and finish.” The WindowsCE operating software allows high-resolution color displays on touch screens ranging from steno-pad size (the equivalent of a 10-inch diagonal monitor display) all the way down to “palm size.” OnSite View software from Autodesk, maker of market-leading AutoCAD, enables the new handheld devices to display regular AutoCAD drawings, complete with the ability to pan and zoom, manipulate layers, measure distances and areas, as well as to “redline” and annotate.

Synchronization between OnSite View and the user’s desktop or laptop PC is supported by any connection that the underlying hardware supports: wired docking “cradle”; infrared “beaming”; modem or network; even wireless Internet. This includes automatically transferring all notes, comments, and sketches to the original drawing files via AutoCAD’s built-in Redline Markup Language. Simple, slick, and a seismic change in handling “drawings” during construction.

System requirements: WindowsCE 2.11 or better; AutoCAD2000.

The IBM Intellistation M Pro PC

CPU enclosure is stylishly designed and exquisitely put together. The monitor display is almost hypnotic in its rich color, contrast, and detail (it also pivots between “landscape” and “portrait” modes). Even the keyboard includes a thoughtfully ergonomic, detachable wrist rest. If you own more than one black shirt, this is the computer for you.


Sleight of hand
OnSite View, Autodesk

Computerized building designs exist in a purely digital realm; the bricks and mortar of real construction sites will not be replaced anytime soon by cyber-bricks. But the job-site trailer, crowded with tattered rolls of working drawings, may soon be superseded by architects and contractors wielding handheld computers and Autodesk’s OnSite View.

The latest generation of portable devices for Microsoft’s
Autodesk, Inc., 111 Molhnis

Solid as a brick
Bricsnet Architecturals for IntelliCAD

General-purpose CAD programs, such as Autodesk's AutoCAD or Bentley Systems' Microstation, are equally well adapted to drawing buildings, machine parts, or proverbial widgets. Because this flexibility makes software cumbersome for designers in any one discipline to use in unmodified form, architects seek alternatives: architecture-specific programs, such as Revit and ArchiCAD, or architectural add-ons, such as Autodesk's Architectural Desktop or Bentley's Trifirma. The results, though often powerful, can be expensive.

Bricsnet has taken a hybrid approach, balancing power, elegance, and expense. Architectural 3-D solid modeling comes from ACIS, a "kernel" technology recently acquired by the makers of the mod-}

Any architect buying a first CAD program or switching from older-generation CAD to newer, integrated 2-D/3-D, intelligent modeling approach owes herself a serious trial run with Bricsnet Architecturals for IntelliCAD.

System requirements: Pentium CPU at 450 MHz or better, running Windows 98/NT; 64MB RAM (128 MB preferred); SVGA display; CD-ROM. Bricsnet USA, 53 Green Street, Portsmouth, N.H. 03801; 603/436–6808; www.bricsnet.com.

Welcome aboard
DataCAD Plus Drawing Board Edition

Common criticisms of CAD include disruption of normal hand-eye coordination and the awkwardness of the mouse as a drawing instrument. Both problems can be solved with a penlike digital stylus used directly on a touch-sensitive screen display. When drawing surface and display surface are thus recombined, the result feels a lot more like drawing on paper, an experience even the most digitally adept still relish.

From MIT’s Sketchpad in the 1960s to the University of Colorado's Digital Cocktail Napkin in the 1990s, such direct input has been available to a small province of academic researchers. However, price-performance breakthroughs in computer power and touch-screen technology now make commercialization affordable.

DataCAD LLC is offering its latest DataCAD Plus software in a Drawing Board Edition (DBE), bundled with a WacomPL400 LCD Pen Tablet (the same touch-sensitive device that Nemetschek, the leading CAD vendor in Germany, markets there as its "dBoard"). DataCAD Plus combines elements familiar from "classic" DataCAD (MARCH 2000, page 188) with advanced features, such as "zone-based architectural construction" and built-in rendering and visualization, contributed by DataCAD's strategic partner, MB Software of Germany. For several years DataCAD's U.S. competitor, Sigma Design International, has touted the benefits of running its software, ARRIS CAD, on touch-screen laptop PCs, but DataCAD goes further. Rather than just installing the mouse/monitor version of its software for DataCAD Plus DBE, the company modified the on-screen interface to exploit the characteristics of the stylus/drawing board format.

Although seemingly one small step for DataCAD, this is a giant leap for "CADkind" and represents a significant future direction likely to be followed by all CAD software. Already Autodesk, maker of AutoCAD and Architectural Desktop, has launched a top-secret interface development (with no scheduled release date) called StudioDesk, replete with digital equivalents of felt-tip markers and rolls of yellow trace. For now, DataCAD Plus DBE offers real-world productivity, outstanding architectural modeling, and intelligent software objects, all bundled with the user interface of the future.

System requirements: Pentium II or better CPU with Windows 95/98/NT4.0; 64MB RAM (128 MB preferred); 425MB free disk space; CD-ROM drive. DataCAD LLC; 20 Tower Lane; Avon, Conn.; 860/677–4004; www.datacad.com.

ENCAD CADJET 3D Printer Plotter

ENCAD, a pioneer in the large-format color printing market, is offering one of its award-winning ENCAD CADJET 3D plotters as an add-on to its line of large-format color printers. The CADJET 3D is a high-quality, entry-level plotter that offers fast, high-quality 3-D printing in a range of colors. With its advanced features and user-friendly interface, the CADJET 3D is designed to meet the needs of architects, designers, and other professionals who require high-quality 3-D prints in a variety of colors.

Technical specifications:
- Resolution: 1200 dpi x 1200 dpi
- Color: 6-color (CMYK + 2-color ink)
- Paper size: A3, A2, B3
- Print speed: 300 square meters per hour
- Price: $9,995

Conclusion:
The ENCAD CADJET 3D is an excellent addition to the company's line of large-format color printers. Its advanced features and user-friendly interface make it a great choice for professionals who require high-quality 3-D prints in a range of colors. With its fast print speed and high-quality output, the CADJET 3D is sure to meet the needs of architects, designers, and other professionals who require high-quality 3-D prints in a variety of colors.
Bringing sixty creative minds together to design complex projects like Seuss Landing Retail Stores* requires the ingenuity and experience of AAD. Transforming 1680 monthly time records into knowledge that helps AAD better manage 375 projects a year requires the power and integration of the award-winning Wind2 Financial Management System. From real time project reporting and budgeting to fully integrated financial accounting, Wind2 provides AAD with the tools it needs to keep them on schedule and profitable in today's demanding design world.

*Seuss Landing Retail Facility
Universal Islands of Adventure, Orlando, FL
Photo: Michael Norton Photography
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Rita F. Catinella

Materials adapt to fit in with the in crowd

Designers Nancy Mah and Scott Kester, partners of New York City–based Nancy Mah Design, have created the newest hot spot in the meatpacking district of New York—Lotus. The supper club is already an A-list location for society events, promotional parties, and celebrity sightings.

The 10,000-square-foot, three-level space features natural elements such as metal, wood, and stone, as well as some man-made materials, used in unusual ways to create an exotic atmosphere. The design team worked with Mark Richey Woodworking to create the club’s custom millwork. In a lounge (top right), solid poplar blocks are stacked and held together by wooden pegs, creating an open screen lit from both the front and the back. The blocks were cut into three-inch pieces from a large section of wood and then stacked. To design the millwork along a mezzanine railing (visible far left), sections of Luau mahogany plywood were cut into lozenge shapes and stacked. Behind the bottles at the back of the bar (bottom right), a thin veneer of figured European ash is laminated to Plexiglas and illuminated, revealing a wood grain. The yellow strip along the bar is backlit ivory-colored Plexiglas.

To create the glowing yellow wall by the staircase and custom hanging pendants, the designers turned to Norplex, a textured fiberglass product normally used on circuit boards. Downstairs, an original wall was sandblasted and preserved with a sheet of glass.

Stone Source provided the patchwork limestone for the other walls and floors; the limestone is honed where it is lighter and flamed (heated, then hammered to create a coarser finish) where darker.

The staircase’s geometric metal screen pieces were cast in a foundry in New Jersey, bead-blasted, then installed using steel supports to hold up each aluminum section. Other elements of the staircase, assembled by Brooklyn-based Metal Dimensions, include stair treads of two-inch-thick pieces of clear Plexiglas, and a steel-and-Plexiglas banister.

Process transforms smooth Corian into custom-textured surface

DuPont and Allegheny Solid Surface Technologies have announced a new product, DuPont Textured Surfaces. The surfaces, developed using a new patent-pending fabricating technology, incorporate several traditional manufacturing methods in a new way.

“The process was generated from playing with the material and years of experience,” says Allegheny president Russell E. Berry.

With a combination of traditional molding techniques and a new heating and pressing process, virtually any found or imagined texture, from organic to industrial, can be meticulously created in solid surface. Not only can Corian take on the look of large geometric squares, raised circles, and grids, but it can replicate an array of materials with great detail: paper clips, the small veins in a leaf, or even the pattern of a piece of fabric.

While in the past solid surfacing has been differentiated by color and particulate size, the material can now be designed for texture and pattern to coordinate with fabrics, wall coverings, stone, metal, or tile.

The product is being marketed on a limited basis to a group of design professionals who participated in the development of these textures. The actual development of products and services is ongoing and should be complete by late fall of 2000. Product and service offerings will debut by the end of the year. 800/4-CORIAN. DuPont Corian, Wilmington, Del.

Panels of Corian with various textures.
New Products

Unheavy metal
The Formica DecoMetal collection includes 31 metal laminates (a metal surface bonded to a phenolic backing) and 17 solid metals. Intended for light-duty horizontal and vertical applications, the collection features Orbit Aluminum, Micro Perf Aluminum, and Copper Sargasso (shown clockwise above). The five new natural-aluminum solid metals are ideal for casework, wall panels, and cabinetry. 800/FORMICA. Formica DecoMetal, Cincinnati. CIRCLE 205

Moving finish
Kinesis is an interior specialty finish that creates a dramatic "color-travel" effect on commercial walls. With Kinesis, different colors are seen depending on the viewing angle and the wavelength of light being reflected. The water-based chemical formula is low in VOCs (less than 80), mildew-resistant, and virtually odorless. Kinesis can be applied to almost any substrate. 323/980–1250. Surface Protection Industries, Inc., Los Angeles. CIRCLE 207

Star sighting
To create the starlight effect for the ceiling of San Diego's Museum of Photographic Arts cinema theater, approximately 3,000 fiber-optic lights were incorporated into a series of five arches staggered in height and size from the back of the theater to the front. Luxalon Curved Metal Plank was used to create this challenging system of overlapping "clouds" that were not to touch one another or the front or side walls. 800/366–4327. Hunter Douglas Architectural Products Inc., Norcross, Ga. CIRCLE 209

Glassy lady
Laurinda Spear, FAIA, adds to her growing array of home, office, and building products with a new collection of architectural glass for Skyline Design. Six designs offer both large- and small-scale variations, and most designs are available in textured, clear, and etched finishes. All large-scale etched patterns are protected by Skyline Etch Sealer, and textured clear designs are offered in either custom colors or in one of five color selected by Spear. 888/278–4660. Skyline Design, Chicago. CIRCLE 206

Hard, translucent surface material
Imago, developed by Suzanne Tick for Knoll-Textiles, is a family of products made through a patented process that encapsulates fabric in an engineered resin for use in both vertical and horizontal applications. Capturing many visual aspects of glass, but at half the weight, Imago can be fabricated using woodworking tools and formed under moderate heat to create both soft curves and hard angles. Sold in four-by-eight-foot sheets, it will not shatter and is resistant to scratching and fingerprints. Imago will be introduced in eight patterns in a total of 24 color choices and six thicknesses. 800/343–5665. Knoll Inc., East Greenville, Pa. CIRCLE 208

Opening up doors for laminate
VT Industries has introduced its first collection of high-pressure laminate designs, selected specifically for architectural doors. With its 50 laminate designs, Architectural Door Collection 2000 is a cooperative effort of VT Industries and Wilsonart International. The collection features six design groups, dominated by a series of 17 natural-looking wood-grain patterns. Several of the designs are available with premium finishes that enhance both their look and feel. The edge-before-face design on VT laminate doors locks in the edge laminate, avoiding chips and delamination. 712/368–4381. VT Industries, Holstein, Iowa. CIRCLE 210
Petersen Aluminum Corporation's SNAP-CLAD Panels top the new $4.75 million press box and stadium club, completing an eight year long renovation of the 48-yr-old Rosenblatt Stadium in Omaha, Nebraska. The stadium plays host to the NCAA College World Series and serves as home field for the Omaha Royals. The new press box features a peaked metal roof, which dramatically altered the exterior appearance of the stadium. Boone Brothers Roofing Inc. in coordination with the general contractor, Weitz Company, Inc. installed over 11,000 square feet of SNAP-CLAD Panels manufactured by Petersen Aluminum Corporation. The panels are a custom blue PAC-CLAD finish and were corrective leveled to provide superior panel flatness. Color and panel appearance was critical considering the prominence of the roofing panels in the stadium design.

For more information on SNAP-CLAD Panels, please contact Petersen Aluminum Corp. Call 1-800-PAC-CLAD or visit our redesigned web site featuring new online ordering @ www.pac-clad.com

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**Products Briefs**

**Solid color palette**
Using architectural elements as his theme, architect Ettore Sottsass created 14 abstract sculptural forms using DuPont Corian as the primary material for the exhibition *Exercises in Another Material*, held for one night during NeoCon at the Museum of Contemporary Art in Chicago. Sottsass used the reorganized Colors of Corian color palette to create pieces such as Bars and Pillars. The exhibition is currently on a global tour. 800/4-CORIAN. DuPont Corian, Wilmington, Del. CIRCLE 211

**Transformer box**
Los Angeles–based architecture and design firm Touraine+Richmond was commissioned by a film director to design a custom storage system that houses 4000 CDs and 1500 LPs. The 11-foot-by-4-foot-by-30-inch steel structure is clad with MDF birch panels from Mexico, laminated with aluminum sheets. The box mutates into a conference table and other uses through hydraulic pistons and touch-latch mechanisms. 310/399–2782. Touraine+Richmond, Venice, Calif. CIRCLE 213

**Built-in coffee bar**
With the touch of a button, Miele's built-in coffee system offers a choice of coffee, espresso, even cappuccino or latte, made with a steam wand that foams and froths milk. An easy-to-read indicator display shows multiple functions in any of seven languages. Miele also introduces a convection steam oven, which has an injection steam system that provides consistent cooking results on all levels and a temperature-control sensor that monitors and maintains the proper temperature. 800/843–7231. Miele Inc., Princeton, N.J. CIRCLE 215

**ABC’s of DDC**
Domus Design Collection (DDC) has opened a new showroom designed by legendary architect Philip Johnson. The 28,000-square-foot space covers two levels of a landmark New York Art Deco building. Johnson's design creates a series of spaces inside the windows along the Madison Avenue and 34th Street sides of the building, permitting an array of vignettes separated by the folds of the interior construction. The Step Wall System (top left) from Frighetto Industrie is one of many contemporary pieces on display. 212/685–0800. DDC, New York City. CIRCLE 212

**Snapier flooring**
Alloc Original Flooring is a high-pressure laminate flooring with a mechanical locking system that eliminates the need for glue during installation. Alloc Original features an aluminum scarf joint and waxed-sealed edges for a complete, ready-to-install floor. The flooring is ideal for areas with light to moderate traffic, including offices, reception areas, bars, and hotel rooms. 877/DO-ALLOC. Alloc Inc., Racine, Wis. CIRCLE 214

**Center of your own universe**
The Microsphere ergonomic workstation places the user at the center of a flexible computing micro-environment, including a chair with adjustable armrests, footrest, headrest, monitor platform, keyboard platform, and cable management system. With a base footprint of just 2½ by 5 feet, it is crafted of breathable mesh upholstery, anodized aluminum and steel, with either powder-coated or chrome finishes. Future options include additional writing surfaces, CPU stand, and accessory platforms. 604/605–3225. Microsphere Inc., Vancouver. CIRCLE 216
**Product Briefs**

**Design from the bottom up**
The look of the Designer Solarian flooring line is achieved through Armstrong's Inlaid Color process. The process begins with an artist's sketch, which is translated into handmade stencils. Millions of tiny color granules are applied in layers from the base up, until the pattern emerges. 888/ARM-STRONG. Armstrong World Industries, Lancaster, Pa. CIRCLE 217

**Industrial-strength fittings**
The faucets, fittings, and accessories in the Industrial Luxe Collection were designed by Thomas O'Brien of Aero Studios as an update of commercial and industrial bathroom fittings. The collection features a smooth arc to the spout and a dome-shaped base, and will be available in chrome or matte chrome. The line also includes wall- and sink-mounted kitchen faucets and handles. 203/546-6000. Waterworks, Danbury, Ct. CIRCLE 218

**Tile of a different style**
The Mörse tile range (above left), made from high-polished cast aluminum, can be used on both exteriors or interiors. The four main large-format designs can be assembled in a vast number of configurations; smaller tiles add more flexibility. The Lewis large-format tile (above right) is precision-cut from brushed stainless steel. All outside edges are chamfered for extra safety. The centers are high-grade vinyl laminate, but on larger commissions a wide range of colors and textures is available. 44/01372-378120. Időbo Design Consultants, Surrey, U.K. CIRCLE 219

For more information, circle item numbers on Reader Service Card or go to www.architecturalrecord.com Advertiser & Product Info

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The wide-body with the wide range of features. The Ricoh FW7030D. Multiple copies at a fast speed of 15.7 fpm. It features R/E from 25 to 400% up to 400 dpi, 32-level grayscale, positive-negative reverse, mirror image and much more. A controller software option provides full network connectivity. © 1998 Ricoh Corporation.
**Product Briefs**

**Making a stand**
This year’s United States Pavilion, part of the Venice Architecture Biennale through October 29, is equipped with Zero’s architectonic system of structures and furniture. Among the item’s in use in the pavilion are Zero’s panels, trusses, working tables, accessories, and other furnishings. 401/724-4470. Zero U.S. Corp., Lincoln, R.I. CIRCLE 221

**Stone cold design**
The Natural Stone Collection consists of granite, marble, travertine, limestone, and slate options. Tiles should be sealed prior to installation to make the stone less porous and more stain resistant, thus preventing grout and easing clean up. Natural Stone Collection tiles can be given a synthetic wax finish. 214/398-1411. Daltile Corporation, Dallas. CIRCLE 220

**Welcoming furnishings**
Online retailer REALfurniture.com has launched its first collection of decorative accessories, including a coat-hanger system and umbrella stand. The stainless-steel stand, measuring 10 by 10 by 24-inches, was designed by Italian architects Maurizio Martinelli, Gabriella Dorigo, and Giovanni Andrea Panizon. 212/604-0900. REALfurniture.com, New York City. CIRCLE 222

**Avoid office headaches**
The Easy-Down hydraulic damping system slows the speed at which overhead doors close. The device is hidden from view inside the cabinet and does not alter the conventional movement of opening and recessing the door over the top of the cabinet. 562/903-0200. Accuride Intl. Inc., Santa Fe Springs, Calif. CIRCLE 223

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**Product Briefs**

**Sliding scale**
The Urbana carpet pattern, from Invision Carpet Systems, is offered in three scales: small, medium, and large (shown). This gives the designer the flexibility to choose the scale appropriate to the size of the space. Urbana is part of the Creative Visions Box 3 sampling system, a collection of eight products in various scales, patterns, and textures and a new color palette of 10 colorways. 706/279-2552. Invision Carpet Systems, Dalton, Ga. CIRCLE 224

**Writing’s on the wall**
MemErase dry eraseable wallcovering may be either field- or factory-applied. There are three styles, including Whitewall in 62-inch and 54-inch widths; ColorWall, which offers eight colors in a 62-inch width; and the 62-inch-wide GraphWall featuring light gray gridlines. 800/457-9900. Omnova Solutions, Fairlawn, Ohio. CIRCLE 225

**Urbane design**
The Urburbia collection, launched during ICFF this May, is a collaboration of some of New York’s leading contemporary furniture designers. The Pixel sofa (right), chair, and ottoman set by Richard Shemtov features a deep recline, stainless-steel legs, and a textured wool upholstery. The Cyborg sideboard (below), designed by Nick Dine, is constructed of solid anodized aluminum with walnut-covered wood drawers. The aluminum shell rests on matching geometric funnel-shaped legs. 212/925–6171. Dune, New York City. CIRCLE 226

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Solitary, a line of executive case goods in the Teknion Wood line, features a back-bevel edge detail and mitered corners. Solitar's design combines wood, metal, and leather finishes on tables, credenzas, pedestals, and cabinets for the executive or home office. In addition to Solitar, Teknion is introducing five new wood side-seating lines and two wood-detailed lounge-seating lines. Teknion's full complement of upholstery options is available on the new seating lines.

877/TEKNION. Teknion Inc., Marlton, N.J. CIRCLE 227

Three sinks, no waiting
Bradley designed its Express Image Lavatory System to meet the demands of high-end commercial washrooms. Bradley's exclusive solid surface material, Terreon, resists chemicals, stains, and vandalism. The system, which is available in a variety of colors, accommodates up to three users simultaneously while providing each user with the same personal space as individual lavs. 800/BRADLEY. Bradley, Menomonee Falls, Wis. CIRCLE 228

Slatelike ceramic tiles
Tertiary Stone is produced in random shade variations, is fine-grained, and offers a naturally cleft appearance that replicates original slate. Tertiary Stone is available in four colors and a wide variety of sizes. Esquire ceramic tile collections feature large-format floor and wall tiles matched with complementary trim. 800/256-7924. Esquire, Clarksville, Tenn. CIRCLE 229

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212/886-8136. One Plus One, A division of DesignTex, New York City. CIRCLE 230

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888/727-8237. Tennant, Minneapolis. CIRCLE 231

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The York FlexSys underfloor air system is designed for raised-floor applications and features the modular integrated terminal. Designed to accommodate change in building layout or loading, the air terminal units can be located and relocated easily, anywhere within the raised floor grid.

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Tile sample kit and binder
GranitiFiandre has introduced the Geologica sample kit with 33 samples. The Geologica binder contains catalogues, a fan deck, a CD-ROM, and four samples that show products in polished, matte, semi-matte, and textured finishes. The CD-ROM offers a catalogue of all Graniti-Fiandre products, plus a layout program that allows designers to click and design right on screen. 888/903-4263. GranitiFiandre, Itasca, Ill.

CIRCLE 233

Lighting control catalogue
A new product catalogue from Leviton's lighting-control division describes the company's extensive lighting-control product offerings. The catalogue is divided into sections for architectural dimming systems, lighting controls, occupancy sensors, and Decora Home Controls automation products. 800/824-3005. Leviton Manufacturing Co. Inc., Little Neck, N.Y. CIRCLE 234

Fire-rated framing brochures
Technical Glass Products has just released two new fire-rated framing systems brochures. Each four-page brochure features full-color installation photographs, product descriptions, listing

NEW SITES FOR CYBERSURFING
Order samples online for Bentley, Interface, and Prince Street carpet products www.TheSampleCenter.com

Provides manufacturers with Web-based rendering technology for showcasing fabric, texture, and color combinations for product lines www.styleclick.com

Exterior home design visualization software www.exteriorfx.owenscorning.com

New tile site www.walkerzanger.com

Information, and general characteristics of Fireframes by Forster. 888/397-3473. Technical Glass Products, Kirkland, Wash. CIRCLE 235

Expansion joint brochure
A new detailed brochure highlights the JointMaster architectural joint systems. A variety of product combinations and finish and installation options are highlighted. A "Frequently Asked Questions" page addresses basic expansion joint concerns. 800/222-5556. InPro Corporation, Muskego, Wis. CIRCLE 236
Introducing Gold Guard. A barrier against moisture, not design.

Despite misconceptions, EIFS provides a better moisture barrier than other claddings. Now we’ve taken it even further. Introducing Sto Gold Guard — a moisture protection system that resists water penetration more than 5 times longer than leading brand house wraps and 28 times longer than conventional building paper. Gold Guard has two easily-applied steps (all you need is a trowel and a roller). And when combined with EIFS, you get seamless moisture protection for years. Now you can create memorable, lasting designs with EIFS without having to watch your...um...back. Start today by visiting our Web site at www.stocorp.com or calling 1-800-221-2397.
Line of quiet windows
Milgard offers new Quiet Line sound-control window brochures. Four two-page brochures feature Milgard's latest development in reducing environmental noise, particularly well suited for use near freeways or airports. Each brochure focuses on a different style of window: slider, double-hung, casement, and picture. All include product descriptions, features, specifications, and options. 800/MILGARD. Milgard Windows, Tacoma.

CIRCLE 237

Remodeling skylights
A full-color idea book from Velux-America features more than 20 remodeling design ideas using skylights in various rooms of the home; categories include Kitchens, Baths, and Vanities, Attics and Bonus Rooms, and Other Rooms. The book has full-color examples and architectural drawings of design styles incorporating skylights. 800/283-2831. Velux-America Inc., Greenwood, S.C. CIRCLE 238

Plaza construction techniques
A free, four-color brochure from the Dow Chemical Company offers architects, specifiers, and contractors guidelines for plaza construction, detailing the Protected Membrane Roof system, developed and patented by Dow more than 30 years ago. 800/441-4369. The Dow Chemical Company, Midland, Mich.

CIRCLE 239

New sampling device
Interface has introduced a new Sampling Box made from polypropylene that can be reused or recycled. The box contains the same sampling information found in traditional architecture folders, including a swatch card, a larger feeler swatch, and a card with all the specifics of the carpet. Shelf space was considered in the creation of the box: seven of the new boxes fit in the space of only three architecture folders. The outside label includes a photo of the carpet for easier identification on a designer's library shelf. Interface also introduces the "Sustainability Report Card," which provides designers and other specifiers with a framework in which to evaluate the full ecological impact of floor-covering products. The company plans to issue this report card and grading system with all Bentley, Interface, and Prince Street carpet products. The report card evaluates products on three levels: pre-life cycle, life cycle, and post-life cycle. 770/437-6800. Interface Inc., Atlanta.

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Samuel Mockbee: The Architecture of the Black Warrior River
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September 9–October 21
Exhibition of architecture by Samuel Mockbee, whose work is characterized by the use of recycled and found materials. Max Protetch Gallery. 212/633–6999.

How to Lay out a Warehouse or Distribution Center
Kansas City, Mo.
September 11–12
This event is a short course offered by the University of Kansas. All attendees will receive a certificate of participation indicating that the short course provided 16 contact hours of instruction. Kansas City Marriott Country Club Plaza. 877/404–KUCE.

Designing Green Ideas
San Francisco
September 14
The educational symposium will feature three speakers discussing a spectrum of views on green design. The event is free and open to designers, architects, and the public. Attendees can earn .5 CEU credits, 10 CES learning units, or 5 contact hours. San Francisco Marriott. 800/222–5556, ext. 262.

AIA NYS Convention 2000
Brooklyn
September 21–24
Annual New York State Convention featuring keynote speaker Robert A.M. Stern, FAIA, continuing education seminars, a trade show, golf tournament, and architecture tours. 718/630–9898.

At the End of the Century: 100 Years of Architecture
Los Angeles
Through September 24
In 21 parts, this massive international exhibition organized by MOCA surveys countless architectural photographs, scale models, drawings, furnishings, clips, and artifacts. The Museum of Contemporary Art at the Geffen Contemporary. 213/621–2766.

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**10x10 Presentation**

**San Francisco**

September 30

A diverse international roster of architects, selected from the book 10x10, present and discuss their recent buildings and projects. Yerba Buena Center for the Arts Theater. 415/978-ARTS.

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**France**

**Through September 30**

This fellowship is awarded to French and American architects pursuing careers in historic preservation. In 2001, an American architect will spend six months in France studying preservation practice related to the documentation, protection and enhancement of French heritage, culture, environment, and resources. 202/626-7511.

**Inventing Futures—The Seventeenth Encounter of Latin American Students of Architecture**

**Los Angeles**

**September 30–October 8**

**Small-business owners...**

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The council of Latin American Students of Architecture United States chapter sponsors the first Pan-American event for architecture students and interns. The lectures will center on the growing Hispanic population in Los Angeles and its implications. www.clesiai.it

**CERSAIE 2000**

**Bologna, Italy**

**October 3–8**

CERSAIE 2000 is the world’s largest exhibition of ceramic tile and bathrooms furnishings. International exhibitors will show their newest products, highlighting the technologically and aesthetically expanding tile and furnishings industry. Bologna Fairgrounds. www.cersaie.it.

**Rail-Volution 2000: The Livable Metropolis, Prospects and Profits**

**Denver**

**October 4–8**

A definitive national conference on the building of livable communities comprises hands-on workshops, case studies of built examples, and moderated panel discussions. The Adams Mark. 800/788-7077.

**Justice Facility Partnerships and Leading-Edge Justice Technology**

**Charlotte, N.C.**

**October 5–7**

This two-day forum sponsored by the American Institute of Architects (AIA) Committee on Architecture for Justice provides an interactive forum for architects, planners, facility operators, government officials, and private developers to discuss the planning, design, operation, and financing of multiuse justice facilities. The Adam’s Mark Hotel. 703/780-7300.

**Designing for the 98% without Architects**

**Princeton, N. J.**

**October 7–8**

The conference consists of three panels presenting the work of community design centers, design/build programs and nonprofit organizations. Panel discussions will be a forum for dialogue between professionals and young designers. 717/337-1447.

**Utopia and Reality—Modernity in Sweden 1900–1960**

**Stockholm**

**October 7, 2000–January 14, 2001**

Exhibition of over 450 works by architects, designers, and artists focusing on how modernity was expressed differently in Sweden from the
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CIRCLE 89 ON INQUIRY CARD
Dates & Events

The NatWest Media Centre, Lord's Cricket Ground, UK
Architect: Future Systems
Photographer: Richard Davies

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rest of the world. Modern Museum.
+46 8 5195 5210.

In Search of the Simple Whole
Mexico City
October 7-31
An architectural exhibit featuring recent work by Michael P. Johnson. The exhibit includes photo murals of constructed work, drawings of unbuilt projects, computer-generated images and models. Barragan Studio. 505/737-0942.

Preserving the Recent Past II
Philadelphia
October 11–13
Sponsored by the National Park Service, the General Services Administration, the Society of Architectural Historians, DOCOMOMO, and other preservation-minded groups, this weekend of events includes 70 speakers, an exposition, tours, and a curtain-wall symposium. Loews Hotel (historic PSFS Building). 202/343-6001.

Form! Function! Future! Conference
Portland, Ore.
October 14–17
This conference offers professional development for private, corporate, and public architects to offer their services in a new marketplace environment. Features include: successful business practices, good design concepts, computing for design, meeting client's needs, and new sources of revenue. Portland Hilton Hotel. 202/626-7410.

Uniting the Useful with the Beautiful:
The Architecture of the Arts and Crafts Movement
Perry, Iowa
October 19–22
This year the focus of the conference is the architecture of the Arts and Crafts movement, along with the designers who created, and are creating, homes and buildings that provide the environment for our lives. Hotel Pattee. 212/889-3580.

Structure and Meaning in Human Settlements
Philadelphia
October 20–21
Conference emphasis will be placed on the common ground between architectural theories about place and dwelling and current research in anthropology about settlements and cultural landscapes. University of Pennsylvania. 215/898-5728.

Nature Constructed/Nature Revealed:
Eco-Revelatory Design
Washington D.C.
Through October 22
Exhibition presenting 15 landscape architecture projects. The landscapes are ecologically sound and reveal and interpret ecological phenomena, processes, and relationships through video, sculpture, models, photographs, drawings, and plans. National Building Museum. 202/272-2448.

FEDCON 2001
Washington D.C.
October 23
Federal officials involved in construction will present building budgets, plans, and updates on new regulations and their impact. This program is free and cosponsored by CMD Group and the National Institute of Building Sciences. 800/283-4699.

North American Construction Forecast
Washington D.C.
October 24
This daylong conference sponsored by CMD Group brings together economists and analysts from the United States, Canada, and Mexico to explore conditions that will determine building activity. National Press Club. 770/417-4261.

Aluminum by Design: Jewelry to Jets
Pittsburgh
October 28, 2000–February 11, 2001
The first major museum exhibition to explore how aluminum has inspired creativity and sparked innovation in design, including works by such visionaries as René Lalique, Jean Prouvé, Ludwig Mies van der Rohe, Russell Wright, Charles and Ray Eames, and Gio Ponti. Carnegie Museum of Art. 412/688-8690.

Computers for Construction 2000 and AEC Systems
Anaheim, Calif.
November 6–9
The only tradeshow and conference dedicated exclusively to computer use by contractors, and the regional computer and high-tech event for the design and construction industry join forces. Anaheim Convention Center. 610/458-5472.

“Good Design is Good Business,” Design Strategies for the New Economy
Washington, D.C.
November 17
A Business Week/Architectural Record conference
16th CENTURY STONE

Project: St. Peter's Basilica
Designer: Michaelangelo
Product: Marble & Travertine

The greatest church of Christendom was begun in 1506 under Pope Julius II. It had 13 chief architects, including Michaelangelo, who held the post until his death in 1564. The top of its cupola rises 435 feet above St. Peter's Square, almost 150 feet taller than the U.S. Capitol.

21ST CENTURY STONE

Project: Capital Commons
Product: ALPOLIC® Red Granite

This seven-story, six-year-old building was reclad with ALPOLIC STONE SERIES®, utilizing a dry gasketed aluminum composite panel system. The entrances were clad with ALPOLIC® red granite stone series aluminum composite material that weighs only one pound per square foot.

Like Michaelangelo's creations in marble, we have taken aluminum composite materials to new heights. In fact, we're the leader in offering new and innovative products that can help you realize your visionary designs. ALPOLIC® was the first to embrace PPG/MEGAFLON®, a high-performance fluorocarbon, as our primary paint finish. We were the first to offer a virtually endless palette of colors limited only by a designer's vision. Now we've broadened our line to offer you such unique products as our ALPOLIC STONE SERIES®, our ALPOLIC A-LOOK® reflective mirror surfaces and our ALPOLIC ISD® interior products that simulate wood and stone finishes. When you have a vision for the 21st Century, create your masterpiece with ALPOLIC products.

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TO ALL PERSONS, OR THEIR PROPER ASSIGNEES, WHO OWN BUILDINGS IN THE UNITED STATES ON WHICH PHENOLIC FOAM ROOFING INSULATION (“PFRI”) MANUFACTURED BY KOPPERS COMPANY (NOW KNOWN AS BEAZER EAST, INC.) OR JOHNS MANVILLE CORPORATION AND JOHNS MANVILLE INTERNATIONAL IS INSTALLED OVER A METAL ROOF DECK, OR WHO HAVE A PROPERTY INTEREST IN SUCH BUILDINGS WHICH OBLIGATES THEM TO MAINTAIN THE BUILDING’S ROOFING SYSTEM

Notice is hereby given that settlements have been reached in the class action lawsuit entitled Seabro. Inc. et al. v. Beazer East, Inc., et al., Nos. 96-10069-MLW and 96-10656-MLW (United States District Court, District of Massachusetts), two settlement classes have been conditionally certified and preliminary approval of the settlements has been granted by the District Court. The settlements will provide compensation to persons who own, or are obligated to maintain the roofing system, of buildings with Phenolic Foam Roof Insulation (“PFRI”). Koppers Co. n/k/a Beazer East, Inc. manufactured PFRI from 1980 through January 17, 1989 under the names Koppers Exeltherm Xtra and Rx, Geistar, Pittsburgh-Corning or Loadmaster (“Beazer PFRI”). Johns Manville and Schuller International manufactured and sold PFRI from January 18, 1989 through December 31, 1992 under the names “Ultragard Premier,” “InsulBase Premier,” and “Fesco-Foam Board” (“JM PFRI”). The settlements will be considered for approval at a Fairness Hearing scheduled by the Court for December 13, 2000.

You may be a member of one of the settlement classes if you own, or are obligated to maintain the roofing system, of a building or other structure in the United States or its territories and possessions in which Beazer PFRI or JM PFRI is currently installed within a roofing system and above a metal roof deck as of June 30, 2000, the date of the court’s order preliminarily approving the settlements. The following persons are not included in the settlement classes: (a) persons who properly execute and timely file a request for exclusion from the settlement classes in accordance with the terms of the Settlement Agreements, and (b) persons whose roof decks are entirely non-metal; and (c) persons whose roof deck was fully remediated or whose claims relating to Beazer PFRI or JM PFRI were previously settled by Beazer or Johns Manville. Under the settlements, persons whose membrane system is entirely comprised of a metal roof system are not included in the settlement class.

This Notice Is Only A Summary. There are more detailed written settlement notices which explain the terms of each settlement and your right to participate, object or exclude yourself from the settlement classes.

If you think you may be a member of one of the settlement classes and you did not receive a written settlement notice by mail, you should request a copy of the appropriate notice by contacting the Notice Administrator by mail or telephone as follows:

Phenolic Foam Roof Insulation Litigation
c/o Standish Legal Processing
Stonehill Corporate Center
999 Broadway, Suite 500
Saugus, MA 01906
1-877-917-PFRI
www.pfriclaims.com

The written settlement notices include Claim Forms, Requests for Exclusion and Instructions on how to opt-out of the settlements and other information.

If you are a member of the Settlement Classes and do not opt out of the Settlements by November 22, 2000, you will be entitled to participate in the Settlement Claims Program and will be bound by the Court’s Judgments in this Action.

PLEASE DO NOT CONTACT THE COURT

CIRCLE 92 ON INQUIRY CARD

Official Court Notice

Dates & Events

in association with the National Building Museum and the AIA. This half-day conference brings together key business leaders and architects to discuss collaboration between architects and clients resulting in the achievement of business goals. Attendees can attend exclusive preview reception for On the Job: Design and the American Office. National Building Museum. To register go to www.architecturalrecord.com.

On the Job: Design and the American Office
Washington, D.C.
November 18–June 2001
Exploring the role of the architect in the social space, this major exhibition documents the American office as a dynamic environment whose significance extends beyond physical boundaries. National Building Museum. Registration required. Call 202/272–2448 or visit www.nbm.org.

Competition Notice for the Museum of the 20th Century in the Arengario
Deadline for first stage plans: October 16
The aim of this juried competition is to restore and preserve the building known as the Arengario, in Piazza del Duomo, as well as to set up inside it a new Museum of the 20th Century. The first stage of the competition involves anonymous presentations which will be selected without creating a merit classification list. Five proposals will be chosen for the second stage. www.milanoprogetti.org or Raffaella Poletti at +02/89013883.

Before + After: The Intentions and Processes of Transformation
Deadline for receipt of entries: October 16
A juried exhibition will present a critical inquiry into architectural interventions and the trends affecting change in the built environment. Two images and supporting process documentation will compare the state of an original condition and the effect of a practical and transformative intervention. $15 entry fee. 303/443–1945.

2001 Chicago Neighborhood Development Awards
Deadline for receipt of entries: October 25
Created in 1995 by Local Initiatives Support Corporation/Chicago and #8211, a community development support organization, this awards program offers several awards for community-oriented non-profit and for-profit architectural and development projects. To receive an application contact Garry Huebner or Jeanette Figueroa at 312/360–0400.

Architecture, Image, and Emotion
 Deadline for receipt of entries: October 30 6:00 P.M. Italian time
The competition is designed to elicit ideas for a retail facility to be built on different scales. Open to all architects and engineers registered with their respective professional associations or possessing the appropriate qualifications in their home country, entries may be submitted as a team. www.arcadata.it.

Please submit information for the Dates and Events section to ingrid_whitehead@mcgraw-hill.com. Submissions should be sent two months before the event occurs.
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CIRCLE 93 ON INQUIRY CARD
AIA/ARCHITECTURAL RECORD
CONTINUING EDUCATION

ANSWERS
Questions appear on page 162. To receive CES credits, fill in the education reporting form below or on our Web site (www.architecturalrecord.com).

1. Fabrics offer two main advantages: translucency and a good strength-to-weight ratio. They are very strong for their light weight, which enables them to cover large areas with little material. For these reasons, they are easy to install and require little energy in the building process. Because they are lightweight, fabrics interact well with the elements and give people a feeling of connection to the outdoor surroundings. The translucency of fabrics allows natural lighting inside, which often eliminates the need for artificial lighting. Fabrics are available in a wide range of colors, weights, and widths to fit designs.

2. Even though fabrics are engineered to meet the same codes and standards as other building materials, most architects in the U.S. are not familiar with their benefits. Fabrics are widely used in countries outside the U.S. as awnings and canopies to limit heat gain, because air conditioning in these regions is not always common. They are also used as roofs to introduce natural light while providing shade.

3. Fabrics can be used for roofing, where they reflect heat and allow natural lighting; cladding, where they are a lightweight material; shading, where they reduce heat gain; or as the entire shell of a building. They are ideal for covering large areas where light demands are high, such as concert halls, shopping malls, convention centers, or airport terminals.

4. Cotton canvas was the old standard fabric for canopies, but it is seldom used today because of problems with rot and mildew. Synthetic fabrics are now the choice, usually made from polyester, fiberglass, polyethylene, modacrylic, or fibers. Coatings of Teflon, PVC, or Tedlar are applied to the fabric to help prevent ultraviolet degradation and add strength as well as water- and dirt-resistance. Polyester fabric has the flexibility to be packed and unpacked, while fiberglass fabric does not. Polyethylene is a newer fabric and it is 100 percent recyclable. Layering or lining is used with fabrics to improve performance, such as R-values.

5. Structural fabrics can be supported in three ways. Masts are used to give fabric roofs the iconic peaks; they are steel or aluminum and span short distances. Arches allow larger spans but require more structural engineering. External trusses allow for a wide-open space but require costly engineering and materials.

AIA/CES EDUCATION REPORTING FORM
(Use to report learning unit hours earned for ARCHITECTURAL RECORD only.)

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Program/project title: Architectural Record (09.00)

☐ “Designing with Structural Fabrics” [page 155]

Completion date (M/D/Y): ________ / ________ / ________

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Fill in: _____ total LU hours.

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Signature __________________________________________ Date __________

Send completed form to University of Oklahoma, Continuing Education, AIA/CES, Room B-4, 1700 Asp Avenue, Norman, OK 73072-6400; fax 405/325-6965. To respond by E-mail, visit www.architecturalrecord.com and click on Continuing Education. For more information, call 800/605-8229.
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