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A Non-Unified Field Theory
Now that phase one of its construction is complete, Bernard Tschumi's Parc de la Villette in Paris can be seen as a courageous experiment in urban land reclamation. Ziva Freiman

A Different Drummer
Lindblade Tower and the Paramount Laundry Building, adjacent structures in Culver City, California, have been given new uses and new personalities by Eric Owen Moss, Architect. Jim Murphy

P/A Inquiry: Aging in Place in the 1990s
New clients and new concepts of care are reshaping the total life care industry, as demonstrated by a host of recently completed projects and ones that are still on the boards. Daralice D. Boles

Chicago Players, Home and Away
Chicago architects Krueck & Olsen apply their subtle geometries and colors in two office buildings for Hewitt Associates, one at their home base in Lincolnshire, Illinois, the other in Rowayton, Connecticut. John Morris Dixon

Deterrence by Design
Behavioral studies about how criminals select their targets provide insights that architects can use in designing for building security. Kenneth Labs

TECHNICS

Cover:
The Café La Ville, one of the follies in the Parc de la Villette in Paris, by Bernard Tschumi Associates (p. 65). In the background, the renovated 19th-Century Grand Halle. Photo: J.M. Montibrias
Adams Rite would like to clear up some common misconceptions about electric strikes.

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Misconception #2:
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Misconception #3:
Electric strikes are just another kind of hardware.

They're a hybrid, actually — half hardware and half electrical appliance. As a result, it's important to work with an electrician whenever possible to ensure that the electric circuit is designed to meet the power needs of the strike.

Misconception #4:
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Misconception #6:
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Misconception #7:
Any electric strike can be made to fit standard ANSI-prepped doors.

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Homelessness and Housing Hardships

"FINDING affordable housing for all segments of the population is a crisis that immediately confronts this country. Come see a variety of architectural and design solutions, from suburban single-family homes to urban emergency shelters; and hear thought-provoking ideas from experts on the subject." So read the invitation to an excellent symposium held in New York last month as part of the annual Designer's Saturday program (this event sponsored by Formica Corporation, with Interiors, Architecture, and Progressive Architecture magazines).

Moderator Daralice Boles, who had been senior editor in charge of P/A's October 1988 issue on the housing crisis, reviewed some of the efforts published then and updated the audience on accomplishments since. A panel of experts then discussed today's housing situation from their special points of view. The frame of reference for most of this discussion was New York, but the housing situation is essentially similar in all major U.S. cities.

Homelessness during a period of prosperity is no accident, maintained Robert Hayes, recent president of the Coalition for the Homeless. As the product of public policies, according to Hayes, the housing crisis calls for a change in those policies: "There is no way on earth that the private market alone can supply this housing." Contractor Charles Uribe compared housing costs to military outlays: A single Stealth bomber, for instance, equals 2000 new units or 4300 rehabbed ones. City councilwoman Ruth Messinger pointed out that the problem with funding is not simply a shortage of money. Some $27 billion in public funds is spent in New York every year; the problem is how it is used. All agreed that complex regulations burden urban work with delays and unjustifiable costs.

Broader implications for the city and region were sketched in. Hayes reiterated the established fact (too easily forgotten) that no progress in such areas as education, health, or mental health is feasible without decent housing for those we would help. Developer Bruce Ratner observed that the economic health of the region depended on availability of acceptable housing, not just for the poor but for the working population generally.

Regarding efforts to solve the housing problem, there was justifiable pride in the hundreds of low- and moderate-income units now under way—most of them under a city program that requires developers to provide such housing in return for permission to build profitable complexes of other kinds.

Although none of these speakers predicted significant Federal action, all of them seemed hopeful that the challenge would somehow be met. I am sorry to admit that I am not so convinced.

It's not that we don't have the means to give all Americans adequate places to live. We have, in fact, never lacked the means—yet today an estimated 3 million Americans are homeless, and many millions more live in units that are deteriorated and/or seriously overcrowded. And in many of our urban areas—as well as our most prosperous suburbs—people with respectable "middle" incomes have to make inordinate economic sacrifices for minimally adequate housing.

The economic, political, and social forces that have created these hardships are not going to be easily overcome. Discussed or alluded to at that symposium was a truly daunting array of obstacles: the indifference of a public bent on tax-cutting—and the resulting positions of its elected representatives; the excessive costs of borrowing in a debt-ridden society, where the smart money is being enticed by leveraged buyouts and such; the not-in-my-backyard opposition to low- or moderate-income housing developments, with strong neighborhood organizations to prevent encroachments; a construction industry that has been able to do without low- or moderate-income housing—at least up to now; a burdensome tangle of regulations and approval processes, which hardly anybody defends but nobody dismantles.

The kind of drastic shift in priorities that this crisis demands has usually happened only in crises such as war, depression, or civil uprisings. Last month, we had a massive march of the homeless on Washington, but it did not have the impact of, say, the urban riots of the 1960s. As long as the majority of voters consider the housing situation acceptable (or inevitable), there will be little governmental response.

Massive investment in housing is needed if we are to reverse this deepening crisis, and P/A will be supporting constructive efforts at any scale. But short of a basic change in national policy, our society is going to be cursed for many years to come by its failure to provide decent housing for millions of its citizens.
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Korean War Memorial
As the designers of the Korean War Veterans Memorial, to be built on the Mall of our nation’s capital, we are disappointed in the account provided by Thomas Vonier in the August P/A News Report (p. 22). We have come to expect from P/A a level of reporting which is serious, original, and thorough. However, Mr. Vonier’s review suggests that he seems quite unaware of the contextual, architectonic, and figural intentions and subtleties embodied by the project. He has not contacted any of us for an interview; had he done so, he would have discovered first that the Memorial was designed with a contextualist attitude based, in part, on framing views from the Mall to the Memorial and on view alignments from points within the Memorial across and along the Mall to other prominent locations: the Vietnam Veterans Memorial, the Lincoln Memorial, and the Washington Monument. Mr. Vonier’s reference to our desire to achieve a “ghostly quality” with the eight-foot granite figures is quite accurate, but many other of our concerns and intentions—such as the symbolic and metonymic content of the forced perspective path, the trinity of white marble inlays, the red granite parallel, the gnarled sycamore stand, and the kineticism of ascension and descent—go unmentioned. Second, he would have learned that in addition to being faculty members in the College of Arts and Architecture at Penn State University we are experienced practitioners with professional identities, and we hope he would not have characterized us solely as “Penn State designers.”

While we agree that, like any schematic design, this project needs refinement (refinement which we intend to provide), we believe that the Memorial design is appropriate to its place and purpose. With more thorough investigation into the project’s content and detail, perhaps Mr. Vonier will also begin to agree.

Veronica Burns Lucas, ASLA
Don Alvaro Leon, Architect
John Paul Lucas, AIA
Eliza Pennypacker
Oberholtzer, ASLA

Design for Landscape
Thanks for the July 1989 issue on “Landscape.” Hurray for you and my friends! A bold issue that will endure for a long time. I hope the momentum builds. We (aka: Landscape Architects) need this journalistic pressure to remember design should always be spelled with a capital “D.”

Tom Nelson, Landscape Architect
Portland, Oregon

Awards Model Credit
The modelmaker for the award-winning West Hollywood Civic Center design (P/A, Jan. 1989, pp. 107–109) was GRI Models of Wakefield, Massachusetts.

Eisenman Architects Credits
For the Eisenman Architects projects shown in the October P/A (pp. 90–99), the following individuals should have been credited: Begona Fernandez-Shaw and Nuno Mateus, project designers, Banyoles Hotel; Nuno Mateus, project designer, Housing Festival, The Hague; Richard N. Rosson, project architect, Carnegie Mellon Research Institute and Pittsburgh Technology Center; Michael Burkey (of Richard Trott & Partners), project manager, and Richard N. Rosson and Thomas Leeser (Eisenman Architects), associates-in-charge. Columbus Convention Center. An additional client for the Banyoles Hotel is the Consorci Pel Desenvolupament de la Vila Olimpica i Parc de la Draga Banyoles.

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Design Conference in Finland

The AIA Committee on Design continued its look at the topic “Synthesis: Architecture, Craftsmanship, and Design” recently by joining the Finnish Association of Architects for their annual International Conference on Architecture, Urban Planning, and Design, held at the new Espoo Cultural Center (1988, Arto Sipinen). Also participating were the Association of Collegiate Schools of Architecture and the Finnish Association of Designers.

The concept of a total work of art, “Gesamtkunstwerk,” formulated in the late 1800s, found a strong empathy in Finland. Succeeding architectural movements, from the National Romantic Style at the turn of the century to today’s regional Fin-

In Progress (p. 37) features urban reclamation projects by Bernard Tschumi Associates in Lausanne (above) and Queens.

An Olive Branch for Peace Garden

A design by architect Eduardo Catalano, inspired by an olive branch, was chosen unanimously from 930 entries as the winning proposal for the National Peace Garden to be built at Hains Point in Washington, D.C. Catalano’s answer to the open competition’s challenge “to establish a major symbolic expression on behalf of peace” in the United States overcomes the risk of triteness in so literal an approach.

Pei’s Dallas Hall Opens

The Morton H. Meyerson Symphony Center in downtown Dallas opened in early September, with a series of concerts designed to show off the flexible acoustics of its 2062-seat Eugene McDermott Concert Hall. Designed by I.M. Pei & Partners with acoustician Russell Johnson of Artec Consultants, and built by contractor J.W. Bateson of Dallas, the center is a public-private venture built for an estimated $81.5 million (some 64 percent over the original budget).

The Meyerson is meant to be a bold civic gesture: Dallas Symphony officials repeatedly called it a symbol of resurrection for the city, which is emerging from a severe recession that dragged local banks, developers, and oil (continued on page 26)
Pencil Points

Antoine Predock was awarded top honors by an international jury attending the Buenos Aires Biennial of Architecture. Predock took the International First Prize for his Arizona State University Fine Arts Center (P/A, Jun. 1989, p. 65) from among 800 contenders.

The recent New York landmark designation of the Seagram Building "delighted" its owner, the Teachers Insurance and Annuity Association, but they came out fighting against the additional designation of the Four Seasons restaurant. They say that the restrictions attached to the landmark designation interfere with the landlord-tenant relationship.

The AIA and the National Trust for Historic Preservation have sent a team of architectural historians, and preservation specialists to St. Croix to assess damage from Hurricane Hugo to buildings listed on the National Register of Historic Places. The team will help determine what buildings are salvageable.

In response to the less than all-out crusade against AIDS by the government or the American public, the New York organization Visual AIDS is sponsoring "A Day Without Art" on December 1. Nearly 500 non-profit institutions nationwide plan to participate either by organizing events, lowering lights, or closing down; among them are the Museum of Modern Art, New York, the Akron Art Museum, and the Museum of Contemporary Art, Los Angeles.

The Waterfront Center awarded Top Honor in its 3rd annual Excellence on the Waterfront competition to three Cincinnati riverfront projects. Winning entries were: Cincinnati Gateway by artist Andrew Lohryter, Golden Valley, Minnesota, and Meyer, Scherer & Rockcastle Ltd., Minneapolis (P/A, Sept. 1988, p. 23); Cincinnati Riverwalk by Rogow + Bernstein, Los Angeles; and Bicentennial Commons at Sawyer Point by Glaser Associates, Cincinnati.

Three designers are among the "25 Americans on the Cutting Edge" in Newsweek's recent cover story on "The Innovators": Martha Schwartz of the Office of Peter Walker and Martha Schwartz (P/A, Jul. 1989, p. 56), architect/urban designer Peter Calthorpe (P/A, May 1989, p. 88), and designer-of-all-trades Brad Ferrin.

Wright (continued from page 23) Wright's unbuilt designs. After initial concerns over preserving the sanctity of Wright's designs were resolved, the Foundation let Klotschke lease the exclusive rights to plans of the Pottery House, designed between 1929 and 1941 for a couple in El Paso, Texas. The Foundation also stipulated that Taliesin Associated Architects be the architects-of-record.

Klotschke chose the Pottery House because it was Wright's only adobe residence. Taliesin architect Charles Montooth says that it was not a complete design: There were three significantly different conceptual sketches. Montooth faced the task of design development, which he likened to the job of an archeologist: "excavating a ruin—exploring what was in Mr. Wright's mind." He calls the final design "inspired by and based on" Wright's original. Although Klotschke built the house in Santa Fe instead of El Paso, both men feel that the desert sites are similar enough.

Now Klotschke and Montooth are collaborating again, this time on the Boulder House, which Wright designed for Mr. and Mrs. Edgar Kaufmann for a site in Palm Springs, California. The house has three parts, roofed in copper and joined by glass passages; it is named for boulders—found on site—that Wright planned to build into its footings. Klotschke again changed the site, this time to Malibu, which he says is a substantially stronger market, although he was very careful to preserve Wright's westward orientation (and to make sure the new site had the namesake boulders). Construction will cost about $1.25 million.

Care tempered by entrepreneurism characterizes the changes that Klotschke and Montooth have made in both houses. Size increases—to accommodate modern kitchens and baths—are handled proportionately (the same way Wright changed size, stresses Montooth). Interior finishes are chosen with the help of local market research; no Wright furniture is included because, Klotschke says, the owners want to "insert some sort of personal statement." And the buyers are willing to pay for the privilege of that personalized Wright house: Klotschke expects to clear about $3 million on the Boulder House.

Andrea E. Monfired

Environmental Graphics Awards

The Society of Environmental Graphic Designers (SEGD) has honored 14 projects in its annual competition, which recognizes "excellence in the planning, design, and execution of sign systems and architectural graphics." In this year's competition, the first open to non-members of SEGD, 163 entries were received. The winning projects and graphic designers follow.

Awards of Excellence were given for Solana, Westlake/Southlake, Texas (Skidmore, Owings & Merrill); see P/A, April 1989, p. 65); Norwest Center, Minneapolis, Minnesota (Lori & Vanden Eynden/Pentagram; see P/A, March 1989, p. 74); and 33 West Wacker Drive construction barrier, Chicago, Illinois (Mobium Corporation).

Receiving Honor Awards were The Stein, Walling, Massachusetts (Daily & Daily); Trattoria Dell Arte, New York (Milton Glaser, Inc.); Hynes Convention Center, Boston (Jon Roll & Associates); see P/A, May 1989, p. 65); The Boulevard, San Diego, California (Graphic Solutions); The Silver Diner, Rockville, Maryland (Mount & Company); Shea Stadium, flushing, New York (de Harak & Poulin Associates); Asia Society, Washington, D.C. (Kiyoshi Kanai, Inc.); and Old Pasadena, Pasadena, California (Wayne Hunt Design, Inc.).

Receiving Honorable Mentions were the Rivercenter, San Antonio, Texas (Communication Arts), and the Murray Hill Marketplace, Beaverton, Oregon (Gerald Reis & Company).
urbanism. "Architecture is not a cocktail of impressions from the magazine," he said, but must support and transmit culture through a deeply-rooted reality in social circumstances.

The work of European and American architects and designers filled out the program. City-scaled urban park projects by Elias Torres Turner, steel and glass shop interiors by Eva Jiricna of Britain, and the complex conceptual methods of Wolf Prix of Vienna all described the intimate involvement of the designer in the smallest aspect of a project. Their European approach, in contrast to the Finnish, is based more on total design by the architect rather than a harmonious product by several designers. Projects shown by Margaret Mccurry and Todd Williams served to contrast the difference between American and European professional methods and client relationships.

A provocative lecture by Spiro Kostof recounted the failures of international Modernism, cautioned against the "exceedingly private communication" of Post-Modernism, and advised that architecture must be practiced with a social conscience. His observations of architecture near a new fin-de-siècle were directed at "the liberating novelties" of today's evolving stylistic fashions. The Finns, he said, are largely unaffected by "the current collision of design trends."

Bringing the conference up to date with trends in Finnish architecture, Professor Juhani Pallasmaa reiterated that Modernism is integrated in the Finnish lifestyle, so that the issues today are not of architectural style but the effects of materialism on the culture. After a period of artistic decline in the 1960s and early 1970s, Finnish architecture has revived in the last decade through an interest in the same early Modernist sources that initially brought the new architecture to the young nation in the late 1920s. Gerald Moorhead

The author is an architect in Houston and is Contributing Editor of Texas Architect and CITE.

I.M. Pei

Pei Wins New International Prize

It was hardly a surprise that I.M. Pei was named the first architect winner of a new international prize in the arts. Heralded as a complement to the arts to the Nobel prizes in other fields, the Praemium Imperiale, sponsored by the Japan Art Society, has bestowed $100,000 on each of six leaders in the arts world. For the field of architecture, the award duplicates to the dollar the Pritzker Prize, which Pei won in 1983. (But this new program can have as many as two architecture winners a year.)

Other winners of the new prize were: Willem De Kooning, 85, U.S., painting; David Hockney, 52, England, painting; Umberto Mastroianni, 79, Italy, sculpture; Pierre Boulez, 64, France, music; and Marcel Carne, 83, France, film/theater. The inclusion of only Western Europeans and Americans (neither of the two born in the U.S.) can be explained in part by the deliberate exclusion of Japanese during the early years of this program and by the establishment of recommending committees in the U.S., England, Germany, France, and Italy.

Since these awards are for "lifetime achievement," it is little wonder that most of the winners are elderly and some no longer very productive. The 72-year-old Pei is in some ways the ideal candidate, with 40 years of accomplishment behind him and three prominent new works, on three continents, reaching completion this year: the Grand Louvre in Paris (P/A, June 1989, p. 37); the Meyerson Symphony Center in Dallas (this issue, p. 25), and the Bank of China tower in Hong Kong (P/A, May 1989, p. 43). And even though his firm name has recently been changed to Pei, Cobb, Freed & Partners, he apparently has plenty of energy for future challenges.

Since the sole architecture expert on the U.S. selection committee was the critic Ada Louise Huxtable, a tireless supporter of Pei's work, his American recommendation to the Japanese judges was to be expected. And who else in the world, after all, would rate such an honor? Looking over the list of those who have received the Pritzker, the Gold Medals of the AIA and RIBA, etc., one could find personal favorites (there will be other years), but few as generally esteemed as Pei.

These first Praemium Imperiale awards were formally presented October 27 at Meiji Memorial Hall in Tokyo.

John Morris Dixon

New Master Plan for Penn's Landing

In what city officials hope is the beginning of the last episode in one of the longest running urban design operas in America, a new master plan and developer have been announced for Penn's Landing in Philadelphia. After nearly 30 years of unrealized plans and false starts, it appears that construction is imminent.

The latest master plan for Penn's Landing, a 37-acre parcel of Delaware River waterfront bounded by Market Street on the north and Lombard Street on the south, is the work of John Bower of Bower, Lewis, Thrower Architects, a firm long associated with Market Street development as master planners of Market Street East. The plan is the winning submission to a hastily-called competition staged by the Penn's Landing Corporation this spring; a previous developer bowed out of the project just before an Urban Development Action Grant was to expire. The winning development team, The Welcome Partnership, is a joint venture of Rose Associates, Inc. of New York, Asbell & Associates, of Philadelphia, and Ira S. Davis, also of Philadelphia.

The strength of the Bower plan is its flexibility. It does not rely, as have many earlier schemes for Penn's Landing, on a single monolithic idea or grand gesture. Rather, it seeks to knit together existing fragments from previous plans for the site—most notably the "Great Plaza" (a large, stepped, semicircular public park) and the Port of History Museum—into a coherent composition using phased construction.
Penn's Landing (continued from page 25)

Phase I, expected to begin in 1990, is highlighted by a pedestrian bridge at Walnut Street that crosses heavily-traveled Interstate 95 and Delaware Avenue, culminating in a "Crystal Pavilion." The design of the "Crystal Pavilion" remains in schematic form, but early renderings depict a glazed atrium more reminiscent of Battery Park City's Palm Court than Paxton's Crystal Palace.

From an urban design perspective, the most contentious aspect of the new plan is the placement of a 52-story speculative office building at the terminus of the important Market Street East axis. Some Philadelphians object to the location of any building at that point, although acknowledging the intersection of William Penn's original plan for Philadelphia and the Delaware River with a tall structure is likely to prove the right decision. One wonders, however, if a speculative office building merits so honorific a site and whether the chunky structure depicted in the Bower master plan can ever be given the grace and verticality that the site demands.

In the end, the plan's chief virtue may be that it can be implemented. Unlike New York's South Street Seaport and Baltimore's Inner Harbour, the new Penn's Landing is conceived less as a permanent festival site than as an extension of the city to the water's edge. After three decades of often rancorous debate, it is a surprisingly humble aspiration. 

The author is an architect on the faculties of the University of Pennsylvania and Princeton University.

Dallas (continued from page 23) fortunes into oblivion during the 1980s. And the gesture worked, at least partially: Dallas Symphony officers announced during the festivities that, with a line of credit from the Dallas offshoot of a North Carolina bank, they had raised enough from ticket sales and private donations to cover the association's $43.2-million share of the Meyerson's construction costs, calming worried city officials.

The Meyerson's spaceship-slammed-into-a-warehouse geometry was determined by two main factors. The first was the double-cube massing of the concert hall; this had been specified by the committee that hired Pei (who walked onto the scene after an earlier competition deadlocked)—they wanted their new hall to rival the Concertgebouw in Amsterdam and the Musikverein in Vienna, both high-sided shoebox halls. Pei decided early to set this into a broader base containing the lobby spaces and service areas.

The second factor generating the design was the center's location at the edge of a freeway in the partially developed Dallas Arts District. Pei decided to rotate the concert hall within the base, which sits square to the street front, presenting a wall of glass to the nearby Dallas Museum of Art by Edward Larrabee Barnes (P/A, April 1984, pp. 127-136) and the heavily used streets in between, while the rest of the building would be clad in Indiana limestone, like Barnes' museum. The rotation of the concert hall shows in the form of the curtain wall facing the museum, reflecting its figurative distortion in the skewed "convol" shape, in which every glazing panel is unique. The effect is a building that is surprisingly curvaceous where it presents itself to the public.

Inside, the resulting public spaces, wheeling against the circulation path from the underground parking garage, are bright and seemingly infinite: Looking upward from the lobby past the circular balconies, one sees no two surfaces in the same plane. With its travertine floors, brushed limestone walls, and miraculously sharp-edged columns, there is all the dynamism, and a little of the anonymity, of Pei's East Wing of the National Gallery in Washington D.C. The center of the space, under a massive tied arch, is a ceremonial stair to the concert hall, reminiscent of the stair in Garnier's Paris Opera, which Pei used, with baroque churches, as his model. If the Meyerson's lobby extends Pei's familiar Modernist grammar, the concert hall, which is given its architectural expression primarily by Pei associate Charles T. Young, is something else again. With its deep-toned gridded wood walls, brass accents, red terrazzo floor, and backlighted-onyx panels, all under a blue ceiling and a giant moveable acoustical canopy, the hall is part Wright, part Olbrich, part 1920s atmospheric theater, and a thorough surprise. Behind the scenes, the show is dominated by Johnson's wizardry: Moveable concrete doors opening into a roof-level reverberation chamber and fabric panels around the room create an intense, warm sound that has some concert-goers in tears.

"We tried to give a sense of architectural order to the hall that Mr. Johnson had designed for the acoustical panel. (He calls it "The tongue." ) Even as the opening concert series progressed, architect and acoustician sparred about the height at which it should be placed. Other adjustments may need to be made as well: At least one mink-clad patron has taken a very unfunny pratfall stepping from the entrance onto the steep and slippery orchestra aisle.

In Texas, Dallas is the city that works: The money people and the politicians line up behind projects that other cities find undoable, and, often as not, the projects happen. Whether or not the Meyerson Symphony Center will make Dallas a cultural mecca, it is another monument to a city that has been creating itself from scratch for over a century. 

Joel Warren Barna

John Gaw Meem in Albuquerque

John Gaw Meem wasn't the first to take the adobe, vigas, and tile from the Native American and Spanish colonial building traditions and resuscitate them as the Pueblo Revival style. But in his long and successful career, Meem mastered the style, updated it, and purified it so successfully that he is often mistakenly credited with its very invention. To honor Meem (1894–1983) and celebrate the University of New Mexico's centennial, the Albuquerque Museum has mounted "The Pueblo Revival Architecture of John Gaw Meem," the largest architectural exhibition ever to have originated in the Southwest. The 400-piece show opened August 13, and runs through November 19.

As its title suggests, the exhibition focuses on the Pueblo Revival work for which Meem is best known, although his firm also produced examples of the
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American Colonial, Gothic Revival, and Art Deco styles. On exhibit are original drafting tables, tools, furnishings, and architectural details, plus drawings, plans, and photographs from Meem's voluminous archive at the University of New Mexico's Zimmerman Library. The photographs are not mere records, for Meem hired Ansel Adams, Laura Gilpin and other first-class photographers and gave them full freedom when documenting his buildings.

Born in Pelotas, Brazil, the son of Episcopalian missionaries, Meem worked as an engineer and banker until a bout with tuberculosis sent him packing to a Santa Fe sanitarium in 1920. Inspired by his artistic and cultural surroundings, Meem decided to become an architect himself and studied at the Atelier Denver, a branch of the Beaux Arts Institute of Design in New York City. The success of Meem’s first major architectural commissions, including the addition and remodeling of Santa Fe’s La Fonda Hotel and the Colorado Springs Fine Arts Center, led to his selection as the consulting architect to the University of New Mexico in 1933. During the Depression years, the UNM secured sizable sums for campus construction from New Deal programs. Meem not only enjoyed the freedom to design such masterpieces as Zimmerman Library and Scholes Hall, but also had tinsmiths, woodworkers, and other craftsmen at his disposal to execute his designs. Although the exhibition focuses on Meem’s UNM achievement, it also considers some of the many private and ecclesiastical commissions he filled from the 1930s to his retirement in 1959. Indeed, Meem’s success was so pronounced that in the 1950s and 1960s, Santa Fe and Albuquerque developers began copying the most superficial characteristics of Pueblo Revival when turning out tract homes, offices and even airports, thus turning a style that started out as a curiosity into one intrinsically linked with the Southwest.

Sally Eauclaire
The author is a freelance writer and curator who lives in Santa Fe.

Small Town as Urban Prosthesis
The city of Colton, California, has awarded Joseph Valerio, a Chicago architect, the commission to design 100 housing units for senior citizens. His proposal, first among 137 competition entries, fulfills a double role: It creates a micro-community and shows that suburbs can benefit from the dense development inevitable in San Bernardino County. The settlement comprises the archetypes of the small town: a grid of streets, communal buildings, and residential blocks, compressed onto a single city block, itself a fragment of downtown Colton.

Valerio wrote that an accurate re-creation of a traditional town center would have been fruitless; this center, he hopes, will provide an urbanity valid for today, with models from the past reconfigured and rendered abstract. He set nine apartment buildings on two axes and modulated them with arcades, brise soleil, and pyramidal roofs. Common buildings punctuate the settlement’s...
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Small Town (continued from page 28)

gridiron and double as focal points for the surrounding neighborhood.

Valerio used the street grid as a datum, showing that it can accommodate his eccentric buildings and the crowded developments that will soon follow. By engaging his project to its context, Valerio fulfilled the second agenda set by the Colton Redevelopment Agency, which sponsored the design competition. The CRA recognized that haphazard growth had despoiled Colton, and it sought housing proposals that suggested a new image for the city. To review the competition entries, four community representatives joined four teachers and architects: Donlyn Lyndon, Robert Welington Ould, and Dana F. Cuff from California, and Hilario Candela from Florida. This panel nominated five firms for the final review: Miller Pollin, David Smotrich & Partners, the Kagan Company, Rick Erickson and John Campbell, and Joseph Valerio.

Without qualifying the creativity of Valerio’s solution, one can say that the lives of senior citizens are the design source for the architect’s project. Their day-to-day needs (the basis for the program written by the CRA) marked a series of rituals: from the apartment to the laundry, and then the garden, occasionally a visit from the grandchildren, or meditation in the chapel. From these patterns, Valerio configured a series of buildings in a new town for Colton’s aged.

They offer Valerio a clientele that is rare today: a community that shares an address and a pattern for living. In return, he resurrected a place that is vanishing: the traditional small town. One side of a single city block, this reciprocity works admirably. However, applying his model on a larger scale could be risky; common ideals and rituals are rare in suburbia. Valerio’s plan reveals an irony of our times: Perhaps the only small towns we can build are simulations for those old enough to remember the originals.

Swedish Meeting on the Workplace

The industrial workplace faces design challenges brought on by the emergence of new technologies and the global restructuring of the means of production. These issues and their influence on the technical, social, and cultural responsibilities of architecture and engineering were addressed during a seven-day symposium held in Sweden titled “Industrial Architecture and Engineering Design: When People Matter.”

The symposium, organized by the Conseil International du Batiment and the Union Internationale des Architectes, was held in Stockholm and Gothenburg, August 27 to September 2. Funding was provided by the Swedish Council for Building Research and the Swedish Work Environment Fund. More than 200 architects, social scientists, engineers, industrialists, and students from over 20 countries participated in an interdisciplinary and cross-cultural critique of the changing social and physical environment wrought by the changing nature of industrial production. The extent to which the architect is conditioned by or can interpret and direct these changes toward positive social developments (continued on page 32)

Joseph Valerio’s winning scheme for Colton, Calif. senior housing.
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P/A NEWS REPORT

Swedish (continued from page 30) 

good was an ever-present point of debate.

Given Sweden's status as host country, a decided emphasis was placed on its exemplary socio-
technical industrial culture. Particip-
tants in the seminar became
acquainted with Swedish in-
dustrial culture not only through
the symposium's lectures and
workshops, but also through field trips that ranged from
small, high-tech "tele-cottage"
industries to the Volvo factories.

Swedish architect Ralph
Erskine gave a broad presenta-
tion of his work and philosophy, emphasizing that the architect's main concern should be the
provision for human need over style
and form. From the cardboard
factory at Ostanfors of 1953, to
the IBM-Gothenburg Complex
currently under construction, Erskine's work consistently goes beyond the socially responsible
 provision for people and takes
great delight in the expression
of form. Erskine closed by
stressing the need for architects
to focus on issues of quality of
life over quantity of material
construction.

Kenneth Frampton offered an insightful view into the political
cultural aspects of the symposium's topics, noting that our reactions to modern indu-
trial culture are still very much
created by collective loss of a
mythical pre-industrial world idealized by William Morris. The contradictions
posed by the division of labor
are as much a source of aliena-
tion today as they were in the
time of Morris. This division of labor has led us today into the
"technocratic trap" of the legiti-
mization of non-responsibility.
Frampton went on to emphasize
that the architect should not
abridge the scope of his
responsibilities in light of the
temporary tendency toward
specialization: "In our world of
divided labor, one of the last
figures to remain undivided is
the architect. From this undi-
vided vantage point it is essential
that one should challenge con-
stantly the supposedly value-free
criteria that isolates issues from
the end." John Loomis

The author is an associate with KCA Architects and an assistant professor of architec
ture at City College of New York, where he teaches a design studio/seminar
on the industrial workplace.

Peace Garden (continued from page 23)

Catalano, a professor emeritus of architecture at MIT, pro-
posed a design that involves a
system of partially paved par-
terres defined by the patterns of
seven olive branch leaves. These
terraces, each planted with a
ground cover, are to be sur-
rounded on three sides by an
elevated, tree-lined promenade that
will extend from pathways around the
end of Hains Point. The promenade will serve
as a balcony from which to view
the entire setting. The pathway
is intended to keep pedestrians,
rather than cyclists who circulate
around the southern end of the
point from intruding on the
tranquility of the garden itself.
Not incidentally, this elevated
path will also bolster the existing
seawall, which is in need of re-
pair; the swollen Potomac River
has flooded the site several
times in recent memory. The main
entrance to the Peace Garden
will be through a glass-domed
gate structure at the north end
of the site.

Hains Point is a prominent
feature adjacent to Washington's
monumental core. Due south
of the axis between the White
House and the Capitol building,
within view of the Washington
Monument and the Lincoln and
Jefferson memorials, the wedge-
shaped 12-acre site juts into the
Potomac River. Part of land
reclaimed by dredging begun
in the late 1800s, Hains Point is
arguably the last major
monumental site in Washington.
Unfortunately, noise from nearby
National Airport and Bolling Air
Force Base, as well as interfer-
ence with the intended tranquil-
ity of the place; perhaps the
dense buffer of trees proposed
in Catalano's design will help.

Jurors for the competition
were architects Gunnar Birkerts
and E. Fay Jones, landscape
architects Hideo Sasaki and
Frederick Palmer, urban design comen-
tators Grady Clay and J.B.
Jackson, sculptor Athena Tacha,
and art historian Peter Selz. The
professional advisor was Paul D.
Spreiregen, FAIA, who served in
the capacity also for the Viet-
name Veterans Memorial.

The competition was sponsored
by The Peace Garden Projec-
t, a Berkeley, California, non-profit group. Funds for
construction and maintenance
of the garden, which will occupy
National Park Service land, are
to be raised from private sources.

Thomas Vonier
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In Progress

Beyond Parc de la Villette (see p. 65) Bernard Tschumi Associates is developing two daring—and quite different—urban reclamation strategies.

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**Flushing Meadow Corona Park Concept Plan, Flushing Meadow, New York.** A task force (see right) convened by New York state and city bodies has been charged to remake Flushing Meadows—site of the 1939 and 1964 World’s Fairs—into the city’s “premier park for the 21st Century.” Though the 1225-acre tract is the site of major amenities such as Shea Stadium, the Queens Museum, and the National Tennis Center, the park’s entrances and exits are ill-defined, and connections between its centers are poor. Operation of these centers is hampered by airplane and traffic noise and the lack of adequate parking, restrooms, and food concessions. As the task force’s design member, Bernard Tschumi has proposed three chief organizing—and regenerative—elements.

A north-to-south mall, bracketed by axial walkways, extends the four-mile breadth of the park. It contains most of the extant centers and provides a spine for additional recreation and service components. The picturesque “green meadows” in the east and west portions are consolidated via the “forest walk,” a meandering, intensely planted pedestrian and biking path. Key support systems include a new ring road for internal circulation and parking along the mall.


(In Progress continued on p. 38)
In Progress (continued from p. 37)

Bridges of Lausanne, Lausanne, Switzerland. Close to this hilly city's center, a site once occupied by small industry is being vacated. A private landowner commissioned architect Mario Botta to design a large portion of the site, which stretches above an active railway tunnel. But city fathers intervened and held a competition, won in February by Bernard Tschumi and Luca Merlini, both natives of Lausanne. If approved, the project is scheduled to be built—by Tschumi and others—over a 15-year period beginning in 1992.

Tschumi's urban design comprises five bridges—latter-day versions of Florence's Ponte Vecchio—which take advantage of Lausanne's topography with mixed-use buildings that house commercial and public spaces on street level, and government, office, and residential functions arrayed above or below it. Conceived as "fragments" of the city, the bridges' tiered configuration is analogous to that of Lausanne, where "constructions become means of access" between city levels. Land under the bridges is zoned for small industry and a park.
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**EXHIBITIONS**

**John Gaw Meem**
This exhibition of over 400 drawings, plans, models, and furnishings traces the evolution of Pueblo Revival architecture and documents the career of its leading advocate, John Gaw Meem. Albuquerque, New Mexico, Museum. (See page 26.) Through December 2.

**Peter Eisenman**

**Jean Nouvel**
This exhibition of Nouvel’s recent work offers a chance to see some of the projects responsible, perhaps, for the enlivened state of French architecture today. AIA Headquarters Building, Washington, D.C. Through December 3.

**Paolo Soleri**

**Case Study Houses**

**Edible Architecture**
This is an exhibition which brings together the respective talents of architects, interior, graphic, and industrial designers, and bakers. Drawings and baked realizations are to be displayed; an auction at Sotheby’s and sale of “designer cookies” at Bloomingdales will benefit DIFFA. Steelcase Design Partnership, New York. November 15–December 12.

**Neil Denari**

**Cervin Robinson**

**Josef Paul Kleihues**
“Museum Projects” is an exhibition that documents works by the German architect done over the past 16 years. Arthur A. Houghton, Jr., Gallery, Cooper Union, New York. November 29–December 22.

**COMPETITIONS**

**New York Police Complex**
The City of New York is sponsoring a design competition for a “state-of-the-art” police training complex slated for a nine-acre site in the Bronx. Six firms will be chosen for the competition from an open call for applicants. Contact Adrienne Bresnan, NYC Department of General Services, One Centre Street, New York, New York 10001. Request for Qualifications deadline November 30.

**Bronx Affordable Housing**
“Visions of Home: New Affordable Housing in the South Bronx” is a national competition (open to architects and architecture students) sponsored by the Bronx Museum of the Arts. A $30 fee is required for the entry package. Contact Visions of Home Competition, 5 Philip Verre, Chief Curator, Bronx Museum of the Arts, 1040 Grand Concourse, Bronx, New York 10456-3999 (212) 681-6000. Registration deadline December 1, Submission deadline February 5.

**NGA Glass Awards**
Categories for the fourth annual National Glass Association “Awards for Excellence” include commercial, residential, and interior design with glass, craftsmanship, and specialty glazing. Projects completed between January 1, 1984 and December 31, 1989 are eligible. Contact NGA Awards for Excellence Competition, 8200 Greensboro Drive, #302, McLean, Virginia 22102. Submission deadline December 15.

**Rotch Travelling Scholarship**
A stipend of $17,000, to be used for international travel, is awarded to the winner of this two-stage design competition. For eligibility requirements contact Hugh Shepley, Rotch Travelling Scholarship, 40 Broad Street, sixth floor, Boston, Massachusetts 02109. Application requests due January 2, 1990.

**Quaternario 90**
The Quaternario Foundation has announced Quaternario 90, the second biennial International Award for Innovative Technology in Architecture. Contact Paolo Cecchellari, Institute Universitario di Architettura di Venezia, Tolenanti, Santa Croce 197, 30135 Venice, Italy, telephone 522119/2275400, FAX 5200108. Submission deadline January 13, 1990.

**CONFERENCES**

**ASLA Annual Meeting**
This year’s gathering of the American Society of Landscape Architects takes place in Orlando, Florida. Educational sessions, symposiums, and other events will be tied together under the theme “Space for Tomorrow.” Contact Landscape Architecture Foundation, 4401 Connecticut Avenue, N.W., fifth floor, Washington, D.C. 20008 (202) 686-0068. November 18–21.

**Architecture Film Festival**
The Fourth International Biennial Festival of Films on Architecture, City Planning, and Urban Environment will be held in Bordeaux, France. Films and video tapes will be shown in both competitive and noncompetitive categories and as the basis for audio-visual forums. Contact FIFARC, BP 85, 33 024 Bordeaux, France 56 52 97 88. November 30–December 2.
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A Non-Unified Field Theory

Halfway through construction, Bernard Tschumi's urban park at La Villette can be seen as a courageous experiment in the reclamation of a post-industrial wasteland within Paris.

REAMS have been written about Bernard Tschumi's park at La Villette. Touted as the first "deconstructionist" project to be built, it has been expounded at length by Tschumi in numerous texts, analyzed by theoreticians and philosophers from Princeton historian Anthony Vidler to the father of French post-structuralism, Jacques Derrida. But now, as construction of the $130 million first phase of the park has been completed, and Columbia's Dean Tschumi launches into its second and final phase, La Villette has conclusively crossed the line separating rarified theory from implemented architecture—and so moved from the stimulating province of the few into the public domain: However inspiring the intellectual grounding of the park, ultimately for most people what is realized on the site is all there is.

From that perspective, undoubtedly the most interesting aspect of Tschumi's design is its significance as an urban strategy for the reclamation of a vast, post-industrial tract within the city boundaries. The 125-acre site of the park, occupied until the mid-1970s by the slaughterhouses of Paris, is a paradigm of the problem that now besets many Western cities whose industrial base has moved else-
A bird's eye perspective (above, left) illustrates Tschumi's systems of points, lines, and surfaces as superimposed on the site. It is bisected by the Ourcq Canal, which connects Ledoux's recently restored customs house rotunda to the west with the eastern suburbs. One of the chief axes, strung with follies, accompanies the waterfront on two levels (top). Another channel skirts the park's northwestern boundary. The aerial photograph (above, right), taken in 1988, shows existing buildings, including Adrien Fainsilber's looming Museum of Science and Industry (commissioned by Giscard d'Estaing in 1979, inaugurated in 1986) and its geodesic-domed theater which dominate the park's northern sector. In the southern part are the 1867 Grande Halle, now reused for temporary expositions, and the "Zenith," a 6,500-seat rock concert hall. Most of the point-grid follies house communal or commercial functions; the one at right, however, is solely a belvedere.

where or become obsolete, leaving blighted wastelands for which new uses must be found. "It's those areas that one has to reinvent," Tschumi says. "La Villette was the first project that on a large scale looked at those sites [as places where] you couldn't be contextual. You had to start almost from scratch."

Given France’s powerful public sector and its socialist—and architecturally ambitious—president, it’s not surprising that Paris should pioneer such an urban experiment. Factor in the French passion for philosophy, their romance with high-tech, and their penchant for what critic Peter Blundell Jones aptly terms "institutionalized culture," and you have the makings of the park.

In 1982, Mitterrand’s government organized a competition for the overall design of the site. The program charged competitors to create an "urban park for the 21st Century," and listed diverse commercial and cultural functions including museums, cinemas, restaurants, day care centers, video studios, and art workshops. In March 1983, at 39, the Franco-Swiss Tschumi, by then based in New York, won the commission—budgeted at a whopping $200 million out of $1.5 billion allotted all the Grands Projets—besting 470 rivals from 36 coun-
Tschumi’s absorption in ways that technology can bear on tectonics and concept resulted in the striking structure of the covered walkways, whose design was greatly advanced by Peter Rice (see box, facing page, and Selected Details, p. 135). Their joint fascination with apparently non-stable systems gave rise to the canted, seemingly unbalanced supports of the axial walkways’ 15-foot-wide cantilevered canopies. On a pragmatic level, the number of posts was halved so that subterranean ducts from the 19th Century infrastructure could be used for water and electrical lines. The north-south walkway (characterized by undulating concrete slab, top) intersects with the axis along the Ourcq Canal whose elevated walkway (facing page, bottom left) aligns with the bridge and follies’ upper levels. When it transpired that additional one-foot clearance was needed to allow fire truck access, the pyramidal suspension structure and a small steel bridge were inserted to raise the ceiling at two points. Though Tschumi disclaims hierarchy here, certain primacies exist: At the meeting of the axes (facing page, top and bottom right) stands the most prominent folly, containing the visitor’s information center and restaurant (layered plan and perspective, above right). To maintain its folly scale, the red structure is intersected with a banded granite-clad triangular mass (above left). Tries. Other participants were awarded smaller building and landscaping projects within the framework proposed by the winner.

In response to La Villette’s location in the northeastern corner of the city, bounded by Paris’s Peripherique ring road on the east, and flanked by the blue-collar neighborhoods of the 19th Arrondissement in all other directions, “our attitude was literally to consider (the site) as part of the city,” Tschumi explains. “For me the name ‘park’ was always a bit of a misnomer. The 19th-Century landscape tradition in France is fascinating but obviously was not to be applied in that context.” Besides a sensitive edge condition to consider, there were several sizeable buildings already on the site, among them Adrien Fainsilber’s Museum of Science, Technology and Industry, and an original 19th-Century steel market hall slated to become an exposition space. Others, like the dual-building City of Music by Christian de Portzamparc, a rock concert hall, and two housing clusters of approximately 700 units were projected.

And so, opposed to both Baroque formalism and the Olmstedian picturesque approach, Tschumi resorted to “deconstructionist” realism with its notions of cultural disjunction and dissociation, de-

(continued on page 70)
The Engineer as Artisan

England has produced some of the world's greatest engineers—people such as Thomas Telford and Joseph Paxton—and some of its strongest opponents to the mass-production and mechanization wrought by engineers—people such as John Ruskin and William Morris. Peter Rice, the engineer who worked with Bernard Tschumi at La Villette, manages to combine the two.

Rice stands within the modern engineering tradition of minimizing the number and size of elements (which, in Rice's case, involves a heavy reliance upon tension rather than compression members) and appearing to defy the forces of wind and gravity (which, in Rice's work, is characterized by angled supports and hung structures). La Villette shows him at his most daring. Unlike the symmetrical structures that he has designed for architects such as Richard Rogers (see P/A, Aug. 1985, pp. 67-74), Rice's dynamic forms here meet Tschumi's demand for asymmetrical structures from which walkways and canopies hang (see p. 135). Such structures mark the advanced front of modern engineering.

But Rice also harks back to the craft tradition of Ruskin and Morris. He bemoans our loss of control over the means of production, making architects and engineers passive consumers of mass-produced components rather than the active innovators of new technology. Like Ruskin and Morris, Rice calls for a revived pursuit of craft, and for a renewed involvement in the making (and revealing) of that which goes into our structures. But Rice offers a new twist on this old arts and crafts idea. Rather than reject the machine, he embraces it, seeing in modern technology the means to regain control. Just as information has become more accessible, so too can technology become more malleable, more customized, more understandable through the use of computers and automated fabrication methods.

By revealing how structures are fabricated and assembled, Rice demystifies technology that is usually hidden and little understood. His structures do not just function; they explain themselves. By pushing the capabilities of materials and methods, he encourages us to question the presumed limits of what we can do. Such is the irony in what engineers such as Rice have accomplished. They show us that the way to move forward involves going back to a very old idea: that we really understand only that which we make. Thomas Fisher
A café folly anchors the apex of the park’s triangular “prairie” (facing page, top). Its logo is mounted on a warped, expanded-steel frame (facing page, left). In the background, the PVC/polyester double skin of the “Zenith” rock concert hall can be seen. Originally considered a temporary stand-in for a projected hall, the fabric and steel structure, designed by architects Philippe Chaix and Jean-Paul Morel, is likely to stay. The Grand Halle (in background, top), a surviving example of Paris’s 19th Century metal architecture, was designed by a student of Les Halles architect Baltard, and renovated by architects Bernard Reichen and Philippe Robert. The folly in the foreground houses a first aid station on ground level, but chiefly it’s intended as a stage for open air performances oriented toward the meadow. Its “mill” wheels (now dry) are one of three water features that characterize the follies in its line. Others include the cascade of water in a children’s folly (facing page, center), and the spiral-stair fountain of the folly placed in between (facing page, right). Tschumi designed several of the follies’ interiors, including those above. At left, one of the children’s workshop follies in which the flooring completes the geometry of the structure. At right, the video-oriented Information center sited at the intersection of the chief axes.

(continued from page 68)

derived from post-structural critical theories which had preoccupied him since the early 1970s. He proposed to lay hold of the land with three autonomous systems—of points, lines, and surfaces, corresponding to objects, movements, and spaces—to be superimposed on the site without an overriding order or hierarchy.

In an expository essay published in Paris 1979–1989, a book documenting the French capital’s remarkable architectural boom, Tschumi posited that “in contrast to the Renaissance or 19th-Century spatial organization, the Parc de la Villette presents a variation on a canonical modern spatial theme, the open plan.” Thus, the architect’s system of points is arrayed on a 400-foot grid that blankets the site. The points themselves are represented by follies, concrete- or steel-frame structures clad with bright red porcelain-coated steel—each a Neo-Constructivist variation on a 36’ x 36’ x 36’ cube, variously intersected with cylindrical, or triangular volumes. The industrial aesthetic, striking color, and “strict repetition” of the follies was “aimed at developing a clear symbol for the park,” Tschumi wrote, “a recognizable identity as strong as the British telephone booth.”
Their functions, in theory, are interchangeable, adhering to the architect's intent to divorce form from function, and from meaning.

The system of lines, or movements, comprises two strong cartesian axes marked by covered walkways whose thrilling, seemingly unstable structure, developed in collaboration with engineer Peter Rice, dominates the park. One walkway, covered with cantilevered, undulating concrete slab, connects the park's north and south entrances and features a bridge that crosses a canal en route. The other, also a covered walkway supported by a single row of canted posts, accompanies the canal waterfront on the ground level. Its roof serves as an elevated path, which intersects with the north-south axis at bridge level. Elsewhere, over 70 mature chestnut trees were transplanted to form allees that border the park's grassy "prairies." In contrast to the axial movement afforded by these, a serpentine "cinematic route" meanders through the site, marked with blue terrazzo paving and dense shrubbery. The disparate lines intersect at various points, offering an enjoyable sense of discovery through surprising vistas, which allow visitors to reorient themselves in the terrain.

As the curvilinear path weaves across the straight lines, amorphic sections are created. These are the sites of La Villette's sunken gardens, some already planted, which were designed by diverse architects and landscapers. Rich in the play of water and vegetation, these gardens contain the moments in which La Villette comes closest to offering the respite of more traditional parks. Everywhere else, notwithstanding its broad lawns and delightfully unobstructed water-edge, La Villette rigorously denies such bucolic pleasures.

Tschumi has often referred to his fragmented construction at La Villette as "the largest discontinuous building in the world," and readily acknowledges its kinship to those objects, isolated in space, of Le Corbusier's Plan Voisin. Beyond the pedigree lies pragmatism: The scattered follies and circulation network successfully encompass a vast area with low-density construction, and the multiple frameworks do well to accommodate existing buildings on the site.

In evaluating La Villette, it is only fair to note that at this time, but 9 of some 30 follies are in place (four more are nearing completion), and crucial portions of the walkways—those extending to the south and east ends of the axes—are yet to be built. All the same, there is a vacuousness to certain areas, especially those intended to
be distinctly urban in character, that is quite disturbing. Some of the lifelessness has less to do with Tschumi’s design than with the administration of the park. The Grand Halle, for instance, has become a popular venue of trade fairs. For security reasons, three sides of the glass and steel structure are inaccessible. As a result, a long cobbled stretch between the halle and the covered walkway is robbed of activity and interest. It is to be hoped that Christian de Portzamparc’s City of Music, currently under construction, will help to define the south entrance square, now barren, and often littered with the junk brochures spawned by the trade fairs. There’s less hope for the north entrance, where a hideous concrete desert fronts Fainsilber’s museum. Even the new housing just completed there has the visage of an instant slum. It only compounds the problem that the municipality of Paris and the French government seem unable to agree on who should pick up the park’s maintenance tab. Several of the follies are locked; all could do with a wash. And only one of three built folly water features is operating.

“Reality is fantastic,” Tschumi declares: It has forced him to refine his concept. “La Villette tried to do too many things,” he says. Certainly the built project is much sparser than the wonderfully intricate competition drawings would have led one to believe. But Tschumi is right in that reality may correct that too. Now there is talk about erecting additional housing on park land. Loathe to admit as much in France, Tschumi is prepared to go on record here that infill housing probably won’t hurt the distinctive character of La Villette. (French politicians, says he, “don’t read P/A.”)

From its inception, La Villette purported to invent new kinds of spatial and urban experience, particularly those that reflected the tensions and cacophony of city life in the late 20th Century. On that score, the park disappoints—ironically, it is not complex or dissonant enough. But that is moot criticism: Tschumi would not be the first architect whose vision was diluted by reality. And it is doubtful that architecture can invent the program for such a large urban area. Without doubt, Tschumi has risen to the challenge of conquering a problematic site. With bold architecture he has succeeded in creating a powerful—if thinly spread—framework. Once that framework is completed, real life (with its unpredictable program and unruly economics) should be allowed to fill in the gaps. Ziva Freiman
A bamboo grove (facing page, top left and center) was designed by landscape architect Alexandre Chemotoff, in collaboration with Daniel Buren, Martine Renan, and Bernard Leitner. Sunken below park grade, its contours are defined by the curvilinear "scenic" path. Aluminum truss catwalks connect the raised banks. The garden boasts over 40 varieties of bamboo, set amid concrete irrigation canals, and near a climate-modifying thermal-mass retaining wall. Large-diameter concrete pipes cross certain portions, acquiring the presence of sculpture. Elsewhere, a stepped horticultural garden, similarly defined by the cinematic route, was designed by Gilles Vexlard. Besides an intricate irrigation system, it contains the beginnings of a vine arbor suspended on steel poles and wire. A water, light, and music park by Alain Pelissier, composed of spray- and vapor-producing beams set in a terraced terrain, is nearing completion. Still to come are a palimpsest-like garden designed by Peter Eisenman and Jacques Derrida; housing by Aldo Rossi in the southern sector; hothouses by British architect Cedric Price, sited along the northern sector walkway, and an electronic games arcade by Jean Nouvel along its southern portion. Above, a view of Tschumi's unfussy waterfront furnished with swiveling steel seats by Philippe Starck.

Site: 125 acres. Former location of Paris slaughterhouses with two pre-existing structures (converted into the Museum of Science and Industry and the Exhibition Hall).
Program: Both phases: 30 follies (restaurants, cinemas, video workshops, day care centers, bars, health clubs) totalling 186,000 sq ft; galleries and bridge totalling 70,000 sq ft; landscape 70 acres.
Major materials: prefabricated concrete, porcelain-coated steel, painted steel, aluminum, and granite (follies); steel structure, aluminum roof, prefabricated concrete slab (covered walkways and bridge); aluminum catwalks, reused paving stone, blue terrazzo (promenades).
Consultants: Colin Fournier, planning; Setec-TP, landscape; Tschumi-Erhel Architects Associés, interiors; Peter Rice, RFR, Hugh Dutton, Setec-Batiment, structural; Setec-Batiment, mechanical.
General contractor: Société Nouvelle Coignet.
Costs: $200 million (both phases).
A Different Drummer

Two dilapidated buildings are reborn for new uses as architect Eric Owen Moss moves into less fashionable Culver City.

Lindblade Tower takes its name from the tower-like element (facing page, bottom) that marks a point over the entry and near the corner of Ince and Lindblade. Immediately next to it is the larger Paramount Laundry Building (aerial view, facing page), a very dissimilar structure. On the back side of the Lindblade Tower (above, right), the Moss offices are clad in oriented strand board, with closely spaced steel reinforcing bars protecting the glazing at the entry. Each end wall peak of the existing corner building has been detailed to recall parts of the area's historic forms.

The wartime needs of the early 1940s resulted in surpluses that remain with us today. Among those survivors are the many structures built to house various industries and support functions required by the military effort. Culver City, California, was the home of some of these activities and the buildings they spawned, many of them now in disrepair.

Architect Eric Owen Moss has given two such warehouse structures from this period new roles. As usual, Moss has created a strong and provocative aesthetic out of what, in less skilled hands, could be inelegant formal elements. One part of the vocabulary, the clay pipe columns, has been seen before in his University of California/Irvine Housing Office (P.A., May 1989, p. 92), complete with the elbow bend marker column. Partly because of the given elements, however, the similarities between the earlier project and this one are few.

The two former warehouses are also dissimilar to each other. Both are on what is optimistically named (at least in this section) Ince Boulevard; the one at the corner of Lindblade is a 6000-sq-ft one-story block, while the other started as a 20,000-sq-ft building with a three-story volume. A parking lot behind the buildings serves them both through a driveway between them. Moss has used the vitrified clay pipe columns with cores of reinforced concrete on both buildings, and he has handled them with his typical irony and wit. Both buildings incorporate existing, reused, and new components. But there, even in these two adjacent buildings, the parallels end.

Lindblade Tower

Paradoxically, the smaller of the two structures is the one incorporating the word “tower” in its name, because of the symbolic accent erected at the street corner it anchors. Although not a truly lofty element, the tower was created to provide a formal entry to both the building and the block. It is intended to signify a change in texture from the relative chaos of the neighborhood, the commercial streets, and the Santa Monica Freeway to the north. Its red split-face concrete block further sets it apart from the cement plaster walls of most of the building. Two separate functions share the facility, one a work space for a local film company with headquarters across the street, and the other is the office for architect Moss.

The tower is a paradox in itself, being partly covered, partly open, at least visually; a portion of the roof is closed, and another portion is open to a skylight below it, located over the entry door. From the inside, this creates a dramatic sense of ambiguity between being inside and being out. Where the roof is open to the skylight, wood roof beams are covered with galvanized steel; the covered section is factory-painted white steel.

At the north end of the building, original wood roof trusses have been repaired and left exposed, and the roof is of modified standing-seam galvanized steel sheets. The gable ends formed by this higher portion have been selectively stylized to recall elements of the area’s history. The signature clay pipe columns and their concrete cores along the west wall have been “cut” in half for the lower part of their height, and outdoor lights appear in the cutouts. The rear entry façade, marking the architects’ offices, is clad in 24-foot sheets of oriented strand board coated with a clear gray sealer. Closely-spaced untreated steel reinforcing rods form a protective screen over steel sash windows beside the door.

For the film company, the program called for continuous spatial flexibility to arrange and rearrange areas for various activities and meetings. Power, telephone, and computer terminals have been located at close intervals throughout the floor and walls. A small, intricately detailed courtyard punctuates the space, bringing in light, and a glazed overhead door opens one whole side of the court for fresh air. For all of its individually complex episodes (and presumably busy functions), the interior carries a serenity brought about, at least in part, by very skillful attention to detail and the effects of light.
Lindblade Tower

Viewed from inside the entry, the tower is partly under an opaque roof and partly under a skylight (above). Outside (above, right) the detailing vocabulary is one that is characteristic Moss. Supports for the tower roof land at unpredictable locations; doors are fitted with heavy wood door pull plates, and the lower portions of clay tile columns are sliced in half.

The space on the inside was intended to be as open as possible, allowing the film production company to rearrange it endlessly to accommodate various meetings and other activities. Existing trusses in this area were repaired and retained, one of them disappearing into a metal-clad volume (facing page, bottom) which houses the restrooms and mechanical equipment. Beyond that is the open courtyard (facing page, top), with a roll-up garage door, opening up one full side of the court. At the south end of the court, the architects have devised a visually delightful assembly of pulleys, pivots, and wires forming a lattice, which could allow climbing plants to form a soft screen.

**Project:** Lindblade Tower, Culver City, Calif.

**Architects:** Eric Owen Moss, Architect, Culver City, Calif. (Eric Owen Moss, principal; Jay Vanso, associate; Scott Nakao, Alfred Chow, Carol Hove, and Jennifer Rakou, project team).

**Client:** Frederick Norton Smith.

**Site:** corner lot, with existing industrial building, in an industrial area.

**Program:** Renovate 6000-sq-ft existing warehouse into two units of office space.

**Structural system:** grade beam foundation with poured in place concrete slab, split face concrete block and wood frame walls, wood trusses and roof deck.

**Major materials:** concrete block and exterior plaster, 24-gauge galvanized sheet metal, pre-painted sheet metal, oriented strand board, gypsum board, and concrete (see Building Materials, p. 128).

**Mechanical system:** two gas-fired forced air units, four electric condensers for cooling.

**Consultants:** Gordon Polon, structural; Greg Tchamitchian, mechanical; Mike Cullen, electrical; Steve Ormenyi, landscape.

**General contractor:** Scott Gates, Kevin Kelley.

**Costs:** not available.

**Photos:** Mark Darley © ESTO, except as noted.
A segmented-arched window is one of the most expressive elements of the front façade, and it pulls generous amounts of light into the front stair and hall. The three-story space (above) is one of two primary features of the building, the other being the lofty main area beyond the stair (facing page). This powerful space is focused on the combination of a high central volume and the bridge that bisects its vertical dimension. Taller concrete-filled clay pipe columns rise up to carry deep laminated wood girders, which in turn carry the bridge through cut and reconstructed truss chords.
Paramount Laundry

By cutting the bottom chords of the existing trusses, the architects were able to run a circulation path through (above), connecting the segments of the third floor. New black steel suspension devices were constructed to restore the structural integrity of the trusses, and benches were included to allow impromptu meetings. Conference rooms enclosed almost entirely with glass (top, right) seem to float in the broad space. At the end of one of the laminated girders, some more inventive engineering created this sculptural method to connect into the wall (facing page, bottom).

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In Concert
Although Paramount and Lindblade could hardly be more different in overall expression, the carry-over of clay tile columns and the use of sheet metal—sparring in Lindblade, prominent in Paramount—are key in making them into a joint composition. But the more important, and less tangible, tie is the unmistakable design dexterity of the Moss office. Both buildings exhibit a spatial and textural richness, again in quite different ways; both share a level of detail and care sometimes carried well beyond the level normally associated with the materials being crafted.

While Los Angeles has nurtured many firms of considerable design reknown, none looks at a problem quite the way Moss does, and few produce built work that mixes skill with audacity as successfully as he does. There is a certain "Beauty and the Beast" aura to Moss work that inevitably ends up winning the hearts of most of us in the audience.

Jim Murphy
Project: Paramount Laundry Building, Culver City, Calif.
Architects: Eric Owen Moss, Architect, Culver City, Calif. (Eric Owen Moss, principal; Jay Vano, associate; Dennis Ige, project architect; Scott Nakao, Alan Binn, Carol Howe, Greg Baker, Dana Swinsky, Todd Conversano, Jerry Sullivan, Craig Schultz, and Isabelle Daivivier, project team).
Client: Frederick Norton Smith.
Site: mid-block 45,000-sq-ft lot in an industrial neighborhood.
Program: after gutting existing structure, it was reconstructed for additional floor area and refinished to provide a main lobby, production and warehousing space, offices, and conference rooms.
Structural system: existing concrete foundation, floor slab, and walls, with steel, wood, cast reinforced concrete columns, wood trusses, girders, and framing.
Major materials: custom integral colored plaster (exterior), brown coat plaster (interior), steel metal, vitrified clay pipe columns, birch plywood floors, and fir framing (see Building Materials, p. 128).
Mechanical system: gas-fired 350,000 btu/h air handler.
Consultants: Joe Kuribay, structural; Paul Antieri, mechanical; Mike Cullen, electrical; Steven A. Orman & Associates, landscape.
General contractor: Scott Gates Construction.
Costs: $1.3 million.
Photos: Mark Darley © ESTO, except as noted.
P/A Inquiry: Aging in Place in the 1990s

The concept of total life care for the elderly is undergoing extensive reexamination as new clients and new concepts break traditional norms in the industry.

THE life care business is changing, at a pace that surprises even the most experienced individuals in the industry. New players have entered the field, bringing with them new ideas drawn from their original areas of expertise—be it real estate development or hotel construction. New approaches to life care—most notably the concept of "assisted living"—have expanded the options available to the elderly, prompting many older centers to renovate or expand. A new emphasis on regional markets has shifted attention from the traditional strongholds of California, Florida, and Pennsylvania to the Central and Southeast states.

The current boom is demographically driven. The Census Bureau states that by the year 2030, the 65-plus population will double from 31 million to 65 million. Today, only about 2 percent of that population live in total life care centers. Significantly, however, life care residents live about 20 percent longer than the elderly population at large, and the life style and services they enjoy have become the standards by which all forms of elderly care are judged.

The concept of total life care itself has its origins in Quaker communities established in Pennsylvania several decades ago. The type is defined by a community contract, as well as architectural design issues. Thus one definition offered in Continuing Care Retirement Communities: Political, Social, and Financial Issues (Haworth, 1986) states that "a life care community is a long-term care alternative providing a package of services, including housing, health care, and social services, to the elderly. More specifically, a CCRC (1) provides independent living units, either apartments, rooms or cottages; (2) guarantees a range of health care and social services, which may include intermediate or skilled nursing care, usually available on the premises; (3) requires some type of prepayment, generally an entrance fee and/or monthly fees; and (4) offers a contract that lasts for more than one year or for life and that describes the service obligations of the community and financial obligations of residents."

That last phrase is the clincher. Life care is an elective arrangement not typically covered by insurance or government benefits. Those who live in life care communities are those who can afford to do so. "The CCRC is thought of among professionals as the Cadillac of long-term care," says Victor Regnier, an associate professor in architecture and gerontology at the University of Southern California. And yet, argues Deborah Cloud of the American Association of Homes for the Aging, life care communities are "not out of reach of the middle-class. This is by no means purely an upper income option any more," she maintains. AAHA's new long-term healthcare insurance program is one of several new measures designed to make continual care more affordable to all who need or want it.

It is the buying power of AAHA's traditional constituency—middle class elderly Americans—that has drawn new players from the commercial worlds of hospitality or real estate to the traditionally nonprofit arena of life care. While nonprofit sponsors still operate over 95 percent of all life care communities, most are small, local operations. Thus it would be easy for "outsiders" to capture the lead in life care and, by sheer volume of construction, change the balance of the business. The Marriott Corporation, for example, is now developing a prototype which it plans to implement nationwide. In the 20 months since it entered the field, the Hyatt Corporation has completed five life care centers, more than most nonprofit sponsors will ever build. Other new players from the real estate business—among them Trammel Crow and Lincoln Properties' subsidiary, Linpro—also are equally ambitious, although their commitment to the field, strong now when the office market is weak, may not stand the test of time.

Indeed, many observers question the commitment of for-profit life care providers. "We view the for-profit developments with some concern," says Cloud. "Stability is not a customary feature of the commercial sector." On the other hand, for-profit developers are only the latest arrivals on a scene that was already changing. Architects experienced in the life care field, for example, speak of new middle men, from development consultants to facility operators, who can facilitate the process—or separate designer from end user and reshape the parameters of the program to reflect economic goals, not social or individual needs. Some of the new for-profit developments have dispensed with the life care contract altogether, operating instead on the condominium model and thereby changing the very definition of life care.
Although The Quadrangle in Haverford, Pennsylvania is one of the first life care ventures undertaken by the Marriott Corporation, its relatively low key, traditional campus plan owes more to the Quaker group that initiated the project ten years ago. Nevertheless, the few changes made by the hotel chain are telling: According to Gil Rosenthal, partner in charge of project design for Wallace Roberts Todd, Philadelphia, Marriott required that corridors connecting the 309 apartments to the commons building be enclosed, a move that counters the fresh-air approach to life care typical of the Society of Friends. Moreover, Marriott tied the 36 assisted living units to the 43-bed skilled care facility, instead of linking them to the residential portion of the project, as the Quakers had planned. The organization of units in loose quadrangles owes much to the nearby campus of Haverford College, while the architecture itself is a much simplified version of the manor house at the center of Quadrangle’s 67-acre campus.
Life Care Communities

HIGH-RISE
Set on a tight 1.5-acre site between new office buildings, the Marriott Jefferson in Arlington, Virginia, could be considered a prototype for urban life care. AAHA statistics suggest that high-rise life care may be slightly more conducive to the notion of "aging in place" than the traditional campus where residents are typically moved at least once. But, warns Glen Tipton, partner in charge of the Jefferson's design for Cochran, Stephenson & Donker-voet, Baltimore, the increased complexity of a high-rise runs from fire-safety concerns to the question of whether apartment elevators should bypass nursing floors. The Jefferson stacks 325 one- and two-bedroom apartments atop 57 assisted living and 31 skilled care units, together with the usual congregate facilities and three levels of underground parking.

From Health Care to Hospitality
The notion of "catered living" has supplemented—or some would say supplanted—that of "continual care," long the raison d'etre of life care communities. Although Marriott and Hyatt are providing for assisted living and nursing care either on site or through arrangements with existing local facilities, their marketing downplays the traditional selling point for total life care communities, namely the continuum of care that extends from independent living through assisted living to skilled nursing. Instead, they market a hotel environment, accentuating services such as laundry, maids, etc. And they’ve added a few perks drawn directly from the hotel business. Hyatt, for example, will provide private dining, using the resident’s linen, china, and silver if desired, and guest apartments are available for overnight visitors.

The shift in emphasis from health care to hospitality is having an impact not only on the services offered but on the architectural envelope in which they are provided. Take for example the Wintergarden, Hyatt’s contribution to total life care. "We make the Wintergarden a focus area, like atriums in our hotels," says Ron Kollar, assistant vice president of planning for Classic Residences, a subsidiary of Hyatt headed by Penny Pritzker and dedicated to life care construction. "We put events there like coffee shops, and they become cross-roads, so that Suzy runs into Jane and that community spirit is fostered." Hyatt’s attitude towards unit design is similar. "We want a warm, intimate, residential feeling, not just an endless corridor of rooms," says Kollar.

The regulatory problems of the ALU depend upon who’s building them—and where. If these units are attached to a nursing facility on site, says Regnier, then they are typically required to meet standard nursing home regulations. If, on the other hand, they are conceived as part of a residential development—on one floor of an apartment building, say—then they escape those potentially onerous requirements. While the distinction seems minor, consider the difference a few extra inches can make. "This regulatory issue is really insidious," says Regnier. "If you change the props—eight-foot corridors instead of the usual six, and forty-four inch entry doors—you are making a nursing home."

The key word is residential, for Kollar’s descrip-
Developed by the Hyatt Corporation with Forest Cities Enterprises of Cleveland, the Classic Residence in Teaneck, New Jersey, is the hotel chain's flagship for life care. The $30-million, 223-unit rental complex occupies a 5.4-acre site on a former college campus. Although the configuration of the L-shaped wings was set before Hyatt took over the site, which had been zoned for elderly housing, the architects Jude T. Fusco Associates of Southfield, Michigan, and interior designers Culpepper McAuliffe & Meaders of Atlanta were able to completely redesign the central common building. This "manor house" departs from the life care norm in its organization as a series of rooms that residents move through, as opposed to the usual corridor arrangement. The plan, says James Culpepper, more closely approximates a residence, a feeling that is reinforced by careful choice of interior finishes. Seventeen assisted living units are located on the ground floor of one wing, and 45 units have been reserved for moderate-income Teaneck residents.

Although its vast atrium echoes the signature element of Hyatt hotels, the Classic Residence by Hyatt in Dallas is something of an anomaly in the hotel's fledgling life care division. Eager to get into the life care business as fast as possible, Hyatt bought and converted a four-year-old luxury apartment building on Dallas's North Central Expressway. While the building's unusually large units and generous lobby made adaptive reuse possible, the atrium proved problematic. "It's more commercially than residentially scaled," says project head James Culpepper of Culpepper McAuliffe & Meaders. In addition, says Culpepper, the atrium made it impossible to include assisted living units, which require visual access from a central station. The complex lacks any skilled nursing facility, although Ron Kollar of Hyatt says the company plans to make arrangements with a nearby facility, thereby guaranteeing continual care for those who want it.
DENSE CAMPUS

Now beginning phased occupancy, the $34-million White Horse Village in Edgmont Township, Delaware County, Pennsylvania, is in many ways a classic late-1980s life care center. As defined by life care programmers Oberfest Associates, and designed by Bower Lewis Thrower/Architects, both of Philadelphia, for the Longwood Group, the Village fills its 84-acre site with a mid-rise medical building that houses 57 beds in skilled nursing and 40 assisted care units; a one-story commons building attached to T-shaped apartment buildings that house a total of 102 two-bedroom, one-bedroom and studio units; and four clusters of garden apartments totaling 89 one-bedroom units. The scheme, BLT's first life care center, departs from the norm in its collection of four villa clusters. Where the traditional campus plan of the late 1970s and early 1980s would have distributed independent living units over the store. And the idea of opening up life care facilities to the surrounding community—a move which would give the idea of building a town center reality—raises a host of new regulatory concerns, starting, predictably, with the problem of parking.

But the stumbling block that has prevented the real revival of small towns in suburban America likewise lurks in life care. Contemporary codes rarely permit the complex mix of functions that is the very essence of small town life. Cochran, Stephenson & Donkervoet, Architects, for example, have already confronted this conundrum at Crab Creek, where they want to revive the notion of apartments over the store. And the idea of opening up life care facilities to the surrounding community—a move which would give the idea of building a town center reality—raises a host of new regulatory concerns, starting, predictably, with the problem of parking.

Thus regulations conspire to keep the elderly isolated, in spite of substantial research that urges the opposite. And yet the notion of integrating life care facilities into their communities continues to win advocates. According to Regnier, some 20 percent or more of life care facilities run day care centers—for the young as well as the old. Others have opened their kitchens to local meals-on-wheels organizations or turned over their meeting rooms to the local Boy Scout troop. Says Regnier, "It's not just a matter of providing services to people who can pay for them, but of helping a community solve its problems."
RURAL RETREAT

Although it accommodates only 30 residents, the St. Clement Health Center is a complete life care center, serving not only active elderly but those requiring constant medical care. The $3.5-million facility was designed by The Pearce Corporation of St. Louis to house retired members of a missionary publishing order and occupies a portion of the monastery grounds. According to George Nikolajevich, the principal in charge of design, the architects considered an atrium plan but abandoned it in favor of a scheme that opens to the rural landscape. The resulting radial residential wings are organized around a central nurses’ station and chapel. The entrance atrium is treated as an indoor street where residents take their exercise in winter. Repetitive sleeping cells are individuated through varied window sizes and combinations.
Life Care Communities

SUBURB
The initial phase of Harris Retirement Village in Harris, New York, developed by the community hospital and a private developer, will include 200 owner-occupied dwellings on a 35-acre site adjacent to the hospital, which will supply "a la carte" medical care, a meals program, and long-term nursing care in one wing. As designed by David Smotrich & Partners, New York, townhouses and terrace units fill a simple block plan. The terrace units are scaled-down clapboard cottages with two stacked flats—both entered at grade. Elements of New England small towns, including main street and the village green, are evident in the first phase. Achieving a complete town—and avoiding a subdivision—depends upon execution of all 1000 units together with commercial spaces planned along the main street.

TYPICAL UNIT PLAN

URBAN INFILL
The notion of incorporating a 150-unit/85-bed life care facility into the existing town fabric guided Cochran, Stephenson & Donkervoet of Baltimore in the design of Park Village in Williamsport, Pennsylvania. Surrounded by single-family houses, a church, and a historic park, the interconnected low-rise apartments and nursing building take their architectural cues from an existing Italianate hotel dating from the mid-1800s, which will be converted to house one and two-bedroom units, a dining hall, and other community facilities.

SITE PLAN, PHASE ONE

2-BR UNIT

KITCHEN

MAINTENANCE

SECTION THROUGH COMMON BUILDING

PERSPECTIVE WITH LEONARD HOTEL RIGHT FOREGROUND, NURSING BUILDING BEHIND

EAST ELEVATION, RESIDENTIAL BUILDING
Plans for Crab Creek, a combination life care complex and active adult community near Annapolis on Maryland's Eastern Shore, reflect not only the increasing density of life care developments but their new role model, the American small town. The two portions of the program are treated as separate but equal elements on the 110-acre site. Residents of both mingle in a town center where common facilities—such as a beauty salon, doctors' offices, café and post office—are treated as store fronts along a main square with apartments above. The health center with its 120 nursing beds is set apart in an arrangement that reflects marketing realities. "People want to know nursing care is available, but they don't want to see it every day," says Glen Tipton, principal in charge for project architects Cochran, Stephenson & Donkervoort, Baltimore. The architects and their client the Leimbach Development Corporation hope to open the town center to the surrounding community. Tipton worries, however, that zoning codes, which typically enforce the segregation of uses, will not permit the kind of integrated community they are envisioning.
Chicago Players, Home and Away

Chicago architects Krueck & Olsen apply their subtle geometries and colors in their first nonresidential structures, two widely separated office buildings for the same Chicago client.

SINCE its founding in 1980, the firm of Krueck & Olsen has been known mainly for an extraordinary, AIA-Honor-Award-winning house (P/A, Dec. 1981, pp. 62–67) and a series of high-budget apartment interiors (example, P/A, Dec. 1987, pp. 74–81). Rich as these projects were in design opportunities, partners Ronald Krueck and Keith Olsen—both alumni of I.I.T. and of the offices of C.F. Murphy and Hammond, Beeby & Babka—could not feel successful until they carried out some solid commercial commissions.

In Hewitt Associates, they found a client in some ways similar to those of the first Chicago School. Like the clients of Sullivan and Root, Hewitt is in the forefront of its business world, in this instance developing employee benefits packages for companies all over America. And to meet their mushrooming needs, all Hewitt wants is convenient, comfortable office space, with an image of dignity and no ostentation. Their 1978 national headquarters in the Chicago suburb of Lincolnshire was designed by Hammond, Beeby & Babka as a casually composed low-rise structure with spandrel panels of cedar (P/A, Oct. 1978, pp. 76–77).

Krueck & Olsen’s association with Hewitt started quite humbly: Because Keith Olsen had been HBB’s project architect for that headquarters building, Hewitt asked the young firm to help with some ongoing facilities management; when the time came for new construction, the working relationship was already well established. Although the architects had been acquiring a national reputation for design innovation, Hewitt turned to them for the time-honored reasons of Chicago business, just to get practical facilities.

Hewitt at Rowayton, Connecticut

A 15-acre former estate on the Connecticut shore forms a delightful, yet demanding setting for Hewitt’s Eastern Regional Center. Chosen for access both to New York and to the many corporate headquarters of the Connecticut suburbs, the tract had previously been the subject of a prolonged dispute between its corporate owner and the community. Although these owners had won permission to build offices on this site, Hewitt opened extensive dialogue with the community, in which the architects participated, which affected this building’s loca-

The simple volumes of Hewitt’s Connecticut building are clad in a curtain wall laid out to suggest overlapping planes, using glass of two kinds, granite of two colors, and various framing extrusion in two colors. The façade seen as one approaches (above right and facing page, top) is laid out symmetrically, acknowledging the original mansion’s front. On an adjoining façade (facing page, bottom), the pattern erodes as it approaches the more transparent employee entrance. A photo of the east side (right) shows the illusion of projections in a raking view.
tion, massing, and vehicular access. Even so, one neighbor delayed
construction with an unsuccessful lawsuit.

From Hewitt's point of view, it was crucial to retain the positive
qualities of the mansion and its parklike grounds for its highly pro-
fessional staff of 350 and its corporate visitors. The main house had
previously been adapted for a variety of school and business purposes
and needed some restoration.

For such strict Modernists as Krueck & Olsen, a significant chal-
lenge was designing a formally compatible office building—while
putting an economical envelope around a set of repetitive working
cells. Fortunately, the Tudor style of the mansion had a kind of
proto-Modern character—with large openings, fieldstone walls, and
continuous string courses—which was easier to relate to than, say, a
Georgian house.

Recognition of the main house is found in the new building vol-
umes: While the new structure is much larger, those approaching
along the entrance drive see first a wing that has almost the same
measurements as the main block of the mansion. The only wall of
the new structure that is longer than the original house is one that
faces down a well-wooded slope.

For the exterior walls of the offices, the architects developed a
design based on overlapping planes, using various colors of glass
and cut stone, so that walls would dissolve into a composition of
reflective rectangles. The scale and proportions of spandrel panels
are carefully related to the windows of the mansion, and the colors
of both glass and granite reiterate the palette of the mansion's stone
walls and slate roofs. Jogs in the lines of foundation and parapet—
and curtainwall framing members of subtly differing projection—di-
vide the façades into conceptual bays related dimensionally to the
mansion's projections.

In the process of breaking down the mass of the new offices (and
decentralizing the surface parking, as well), the architects split the
offices on either side of a large transparent employee entrance lobby.
In this central space, Krueck & Olsen were able to develop more of
their distinctive variations on Miesian sources, which had had vir-
tuoso demonstrations in their previous work. Here they could intro-

The principal employee entrance (left center in plan) is announced by a
projecting stair landing (right) that introduces some of Krueck & Olsen's
characteristic use of angles, in plan and in the steel supporting brackets.
In the lobby (facing page), a simple program of circulation on two levels,
a main stair, and an information desk has been developed into a rich
spatial experience, involving windows with various tints of gray glass,
clerestories, and delicate steel railing, with wall planes and exposed
structural members painted in near-white hues.
Just inside the employee entrance ("associates" entrance, in Hewitt's terms), a reception desk is identified by an angular granite slab that plays on the subtle angles used throughout this lobby. Seen through variously tinted and angled areas of curtain wall, the rubble stone walls and slate roofs of the original mansion form a kind of mural.
duce some of their characteristic angles, in both plan and section. The stair next to the main entrance projects in a cantilevered volume that is akin to the forms and custom furniture of the architects' rigorously Modern apartments, yet suggests in this context a Tudor oriel.

**Hewitt at Lincolnshire, Illinois**

While an Eastern headquarters was going up in Connecticut, Krueck & Olsen were also executing another building at Hewitt's national headquarters site in Illinois. Here, in a suburban office district with less constraining zoning and community pressure, the form of the building was determined largely by internal needs.

The primary concern in the design of the buildings at both locations was efficient office space tailored to Hewitt's needs. The company gives all of its professional personnel individual offices, typically 10' x 10'; on the typical floor, rows of these offices alternate with corridors, some widened to accommodate secretaries and shared office equipment. Any expression of hierarchy has been avoided; all corners are assigned to conference rooms, rather than individual offices. Inside each private office, the architects have provided simple built-in counters—wall-to-wall—for voluminous spread sheets and other data. Given the regularity of these office areas, the architects tried to keep the corridors short and provide strong orientation cues.

Curtain walls here are not as richly developed as they might have been. An intention to have glazing in layers has resulted in placing the second-floor glazing about six inches forward of the third floor glass; and above the building entrance glazing and spandrels appear in separate planes. A scheme of the architects to develop a theme of overlapping rectangles, using brightly colored curtain wall framing members, was deemed too flashy by the client. As it is, the patterns of the glazing are quite handsome, but it takes careful observation to make out dark framing members against dark glass. For the spandrels, many materials were considered before it was agreed to use the cedar boards that made the earlier building here so distinctive.

**Following the precedent of the first Hewitt headquarters building on this Illinois site, exterior walls here have panels of cedar boards set within a metal framework.** Approached through the densely-wooded site (top left), the new building appears as a Modernist composition of hovering volumes. Seen at closer range around its main entrance (photos right), the structure shows mullion patterns related to those of the Connecticut building. The architects' proposal for mullions in distinct colors did not prevail in the final design.
The result, at Lincolnshire, is to wrap a no-nonsense interior in a notably understated envelope. As on the older adjoining building, the wood gives a hint of very disciplined rusticity, well attuned to the idea of business in the suburbs. And the building as a whole suggests the serious, self-effacing Modernism seen more often in the 1950s, when clean offices rising on natural suburban sites were widely thought to herald a better life for all Americans.

The Two Hewitt Buildings
While these two new buildings are intentionally unspectacular, they are worth studying for their meticulous, freshly considered fulfillment of characteristic 1980s programs. In these buildings, professionals with reams of paperwork can spread it out conveniently and unselfconsciously; they can enjoy exposure to the fine landscapes that the suburbs can still offer; and as they move about the buildings, their senses can be caressed by abstract compositions of planes in evanescent colors. From the point of view of design, as such, these commissions have been an opportunity for Krueck & Olsen to demonstrate—outside of the favored environment of high-budget residential work—what their coolly disciplined extension of the Miesian design vocabulary can accomplish. John Morris Dixon

In the three-story lobby of the Illinois building (facing page) the architects were able to develop a composition of floating planes painted in their typical bleached hues, all washed by skylights and downlights. At one end of the new building (above right) the architects introduced some of their signature angles in a glazed connection to the 1978 headquarters and an adjoining truck dock. The assertive cantilevered beams of the truck dock canopy make a sculptural event of this service facility.
From locks and alarms to neighborhood planning, criminologists and behavioral scientists are revising and refining theories about the role of building and environmental design in crime prevention.
MODELS OF CRIME PREVENTION

- Improved street lighting
- Increase use of shared public spaces in housing developments
- Reduce number of families per entrance and number of apartments per floor in housing developments
- Reduce unassigned, open space in housing developments
- Increase use of cul-de-sacs and other restricted street configurations
- Increase distance of stores and houses to street
- Reduce incongruities and conflicting uses of land
- Increase the level of maintenance and aesthetic appeal of public and semi-public spaces
- Create hierarchy of zones from public to private space
- Increase use of walkways in open areas
- Location of Black (residence, store) in interior of neighborhood rather than on border of neighborhood
- Increase use of symbolic barriers (landscaping) in housing developments, schoolgrounds, etc.

Figure 1. Community/territorial model

...the characteristics of burgled and unburgled houses consistently show that burgled houses are less "survivable." Interviews with convicted burglars reveal that they prefer unoccupied houses and houses that can be approached and entered without being seen by neighbors. In his own studies with young British burglars, Wright found that alarms and dogs were major deterrents, followed by the appearance of occupancy and lack of cover. The appearance of occupancy was viewed as an attraction by 85 percent of the burglars, followed by cover (hedges and fences) and unsurivable access (6 percent). The presence of a car in the driveway was seen as a deterrent, and in earlier studies with older burglars, Wright found this to be mentioned most often as an outward sign of occupancy. Seventy percent of burglars said it didn't matter whether or not the house had dead bolt locks. This is reflected in interviewees' remarks: "I haven't come across a lock yet that can't be taken off with a crowbar. There isn't a door that you can't open if you have a crowbar in your hand," and, "They don't think about somebody taking the window out. It's the easiest trick in the world."

Environmental psychologist Barbara Brown investigated territorial cues that distinguished 102 burgled houses from nonburgled houses on the same block in suburban Salt Lake City. Among her findings: 1) fewer immediately neighboring houses can be seen from burgled houses than from nonburgled ones; 2) burgled houses had fewer traces of occupancy and less often had garages that could mask the absence of automobiles; 3) burgled houses less often had owners' names or addresses on signs in the yard or on mailboxes; 4) burgled houses had fewer fences and locked gates surrounding the yard. Brown hypothesised that fences and other boundary markers and personalization displays symbolize territorial control. From this, "burglars were presumed to detect a high level of territorial concern and to assume that residents would be more defensive against intruders. In addition, the burglar might infer that residents of personalized dwellings are very community-spirited. These residents might be more likely to have concerned neighbors look after the property."

Brown found this position to be supported by the study, but weakly. In discussing the results within the context of other literature, she cites studies by Repetto, who found that while only 5 percent of burglars said locks would deter them, 23 percent said they would be deterred by "neighbors checking." Among older, more experienced offenders, 35 percent revealed they would be deterred by neighbors checking.

Brown is currently interviewing incarcerated burglars using photos of burgled and unburgled houses. So far, she is able to say, "While burglars are not skilled at identifying which houses have been burglarized by others, they have definite feelings about which houses they themselves judge to be good and bad risks. Burglars believe houses have not been burglarized when they themselves would feel uncomfortable being seen by neighbors on the street in front of the house. Because bur-
Interventions in the Criminal Act

Measures that make a building or site more difficult to penetrate are called target hardening, and these include locks, window bars, laminated glass, fences, walls, and other hardware. The deterrent theory of these devices is very simple and is diagrammed in Figure 3a. Target-hardening strategies and details are thoroughly discussed in a book by Grahame Underwood. His treatment covers the site and walls, doors, windows, roofs, and interior planning considerations.

Closed circuit television (CCTV) is another hardware solution often categorized as target hardening, but its deterrent theory is rather different (Figure 3b). It is better described as monitoring hardware. CCTV monitoring stations are normally on premises and are watched over either by employees or security company personnel, who are expected to respond to suspicious behavior or crimes in progress.

Sensor systems are yet another form of monitoring hardware that may be theorized to function in much the same way as CCTV, except that the alarm system may be attended to by the police, a private security company, or some other agent of the owner. Some alarms simply ring at the site, in which case there is no sure surveillance of activities.

There are many types of indoor and outdoor sensors. These are classified as point, line (area), and volume detectors. Examples are magnetic contact door and window switches, foil-on-glass strips, and motion detectors, respectively. The full range of sensors is explained in detail and rated according to performance and application by Neil Cumming, who also discusses CCTV, locks and other access controls, and lighting.

While building and monitoring hardware are the staple fare of the security industry, the deterrent effectiveness of these measures is more assumed than studied. No one questions that locks on windows and doors are essential to reducing crimes of opportunity. The significance of locks as a deterrent to "search" burglars, especially where concealment reduces the risk of being seen, is less certain, as evidenced in burglars' remarks to Wright.

Rubenstein et al. found that the limited literature on alarm systems all indicated a significant decrease in burglaries. They conclude from the literature on CCTV that these systems can deter according to the perceived threat of apprehension.
to theory, provided that offenders believe that the monitors are in fact being watched.

Summary and Conclusions
What does all this mean in practice? At the sketch design phase of land development for multifamily housing, for example, the designer can draw upon the widest range of principles, beginning by favoring cul-de-sacs and loop streets over through roads and by locating units and window orientations within view of sidewalks and parking areas. At the construction documents phase for urban infill sites, on the other hand, design deterrent opportunities may be limited to specifications for lock, intercom, and detector hardware.

Regardless of project scale or phase, some means for occupants and neighbors to monitor activities outside and within the building should always be provided. The City of Vancouver has recently spelled out what measures must be taken in the problem building type of parking garages. As public concern about crime increases, municipalities may take the lead in deterrent design through building codes.

The situational approach requires that the architect understand the crime characteristics of the neighborhood surrounding the building site. Designers can begin this practice by discussing new projects with the local police and security guard companies, both of which may also consent to review design development plans.

Even the most casual reader of the literature on crime prevention must be struck with how many theories have been framing and supported or disposed of so quickly. This is probably because crime statistics are readily available to test hypotheses, and this ease of validation may encourage hypothetical thinking. On the other hand, the situational approach is empirical, rather than theoretical: While it draws heavily on crime statistics and validated theory, its main aim is to break associative crime patterns, not to explain them. Poyner's design recommendations, for example, are deliberately presented in Alexander's pattern language as programmatic statements.

The history of defensible space ideas provokes the broader question, "Where are theories of architecture tested?" In the built world, of course, but who records and analyzes them? In a decade that has seen widespread abuse of the term "architecture theory," much of which is little more than a pretentious form of self-promotion, it is ironic that one of the most socially potent theories of environmental design to emerge in some years has been surrendered to criminologists for the rigor of scientific examination and validation (and to be returned in a pattern language!). Perhaps this is necessary. Who else is to separate truth from pretense? Kenneth Labs

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The AIA offers a new Building Security Design Database consisting of over 170 citations. The database can be obtained as an annotated bibliography in hardcopy, and the AIA will search keyword, author, and title requests. Call Robert Kimberlin, AIA Library, 202-626-7493.
Technics-Related Products

Burglary-resisting glass, either two- or three-ply, is shown in a catalog of glass and glazing. Falconer Glass Industries.
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A security keypad offers numerical scrambling, a limited viewing angle, and four locking modes, and interfaces with almost any access control system. Architectural Control Systems.
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Door systems featuring computerized rotating doors and metal detectors are illustrated in manufacturer's literature. Nowco.
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A door has a bullet-resisting steel core bonded between oak-veneer plywood and is pre-hung in a steel frame. Chicago Bullet Proof.
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A security keypad offers numerical scrambling, a limited viewing angle, and four locking modes, and interfaces with almost any access control system. Architectural Control Systems.
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Emergency lighting is offered in tamperproof styles. Chloride Systems.
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A computerized security management system tracks key holders and access codes and monitors alarms. Schlage Electronics.
Circle 205 on reader service card

A narrow-jamb deadlatch has both electrical and mechanical locking systems. Adtec.
Circle 103 on reader service card

A derived channel security system offers alarm system protection by using telephone lines to interface between alarm systems and central monitoring stations. Nel-Tech.
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A remote door control product allows a door to be closed with a hand-held unit and communicates door status to remote locations. Yale Security.
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A computerized security management system tracks key holders and access codes and monitors alarms. Schlage Electronics.
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A rapid entry key control system features an exterior key vault, which is protected by a high-security master key. Knox.
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(See Technics, Building Security, p. 100)
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Wayfinding: An Orientation System for Hospitals

Hospital corridors are often referred to as mazes. Traveling through them to reach a destination can be an exhausting, frustrating experience even for a hearty soul, let alone a patient or family member distressed by illness or worry. Under normal circumstances, getting lost is merely an annoyance. In this context, getting lost might mean missing an appointment for diagnostic tests or not finding your child in the emergency room. Anxiety and stress can impair one's ability to process information, and often success is not read. In fact, in some hospitals there are so many signs that they become visual clutter rather than adding clarity.

When Kaiser Permanente came to us three years ago with a complex one million square feet of clinics and hospital in Fontana, California, we searched for a unique solution to their problem. This is the oldest Kaiser facility in the nation, and it has grown haphazardly for years.

Armed with a study called No More Mazes by Carpman, Grant, and Simmons (P/A Applied Research Award, Jan. 1985), we conducted an international computer search to determine how people make their way through an unfamiliar or complex environment. We combined these research studies with our knowledge of hospital traffic flow. Our wayfinding system involves elements that are common to most hospital interior design master plans—namely, finishes, graphics and signage, color, artwork, and lighting. The difference is that we combine these elements in a totally integrated and mutually reinforcing way that enables people to make navigational decisions at critical junctions en route to destinations.

Romedi Passini, an environmental researcher, defines wayfinding as a cognitive process comprising three abilities:
- Cognitive mapping (information gathering and imaging)
- Decision making (allows us to plan a strategy)
- Decision executing (transforms decisions into behavioral action)

These three abilities together constitute the process of spatial problem-solving. People must be able to visualize the path to their destination and be able to formulate a travel plan in their mind's eye. As the environment becomes more familiar, people are able to recognize an increasing number of places, thereby reinforcing the path taken.

Wayfinding Facilitators

Behavioral scientists generally agree on three conditions that are prerequisites for wayfinding:
- Degree of differentiation: the degree of sameness or variation of interior spaces affects one's ability to recognize it and use it as a landmark.
- Visual access: being able to see one part of the building from another, or being able to see the lobby, an atrium, a bridge, or other features to help maintain a point of reference.
- Complexity of spatial layout: the number of possible routes to a destination and the frequency of intersections with jogs or odd angles affects the comprehensibility of the environment.

Signs cannot overcome the negative effects of poor visual access, a confusing building plan, and little differentiation between areas. The separation of impatient and outpatient services and traffic should be a major goal. Sometimes a department may have to be relocated in order to straighten out a major artery rather than have it twist around circuitously. A door may need to be relocated because it is at the terminus of a major artery corridor where a landmark element should be placed.

Wayfinding Elements

We use four principal elements to guide people in our hospital work:
- Destination Treatment: the entrance to an inpatient or outpatient department, or to a waiting room. It can be emphasized and differentiated from other doors in the facility by recessing it (Figure 1), enhancing the lighting, adding windows for visibility, and inserting a design in the floor that can be seen from a distance.
- Main Artery: The major circulation spine connecting the points of entry with various destinations and vertical circulation such as elevators or stairs. A solid color border carpet is one means to define the main artery.
- Landmark: A highly memorable image that can be used as a point of reference when giving directions and that would be recalled by the exiting first-time user or the repeat visitor. Examples are special types of artwork, sculpture, and outdoor views.
- Reinforcement: Additional supporting elements that reassure the wayfinder that he or she is on the right path. The carpet inset in front of the destination, for example, is a reinforcement, as are signage, directories, lighting, and certain types of secondary artwork.

Our goal is to direct people almost subliminally to their destination so that they hardly have to rely on signage. In the main artery corridor, we use a neutral color palette with accent colors reserved for signage, landmarks, or reinforcements. This is the opposite of what is often done. If carpet and wall coverings have color and signage or directional elements are neutral, the eye naturally is attracted to color, and disregards the signage cues.

In our system, main arteries have a different palette of materials which subliminally keeps people from stepping out of the main artery corridor. This may be accomplished by creating a "path" of patterned carpet that stair steps in the direction one wants people to turn. Secondary and tertiary corridors are more subtle and are differentiated enough to keep people from wanting to turn into them.

The landmark images themselves, placed at critical intersections where people have to make decisions, can be directional in nature. For example, a 40" x 60" color photographic of a boat dock might be used at the end of a long corridor to draw people straight ahead to a directory or a landmark that contains directional signage (Figure 2). An (continued on page 108)
Figure 1. Destination design includes recessed entry niche, enhanced lighting, carpet inset, built-in planters, tiered soffit, and glass.

Figure 2. Landmark art image draws people down corridor and stops them to read signage panels.

(continued from page 107)

other image might be a photo of a cottage with a road that winds to the right, positioned in a directional landmark at a point where most people need to turn right.

Other landmarks might be based on a theme per floor. Research has shown that people tend to remember dissimilar things that are paired together or seen out of context. In one large medical center we used this as the theme for our wayfinding images. One floor pairs local landmarks with local agricultural products. Hence we might have an image of a San Diego mission and strawberries. Another pairs parrots with tennis rackets (opposite page). The images are silkscreened onto 18" x 18" panels that are combined in configurations to suit the needs of individual landmark locations. Signage is a component of all of these landmark art panels.

**Pointers**
- Landmarks with written labels are more effectively remembered than landmarks without labels.
- Avoid jargon in signs. For example, most people know what "Radiology" is but may not know "Diagnostic Imaging."
- To focus attention on wayfinding cues, wall and floor surfaces should be neutral. This need not mean colorless or uninteresting.
- Differentiate relevant signs from unimportant ones.
- Locate signs with consistency throughout the facility. Consistent placement allows the visitor to predict signage locations.
- Analyze circulation routes carefully in order to place signs and maps at critical decision points.
- Elevator lobbies should be highlighted so that they can be seen from a distance. A large scale carpet inset, unique lighting, and special wall treatment accomplish this goal.

**Research Implications for Design**

Studies have demonstrated that people differ in the methods they employ to find their way around, based on their experiences, personality traits, and perceptual cues. Some rely heavily on signs and others rely on an understanding of the spatial properties of the setting. Designers must supply enough cues to satisfy both types of users.

Wayfinding involves a number of decision plans made sequentially, one at a time, as people progress through space. They should not be given too much information at one location. It is less confusing to provide only what is needed to get to the next decision-making point.

A study executed to learn if color and form are remembered automatically proved that it takes considerable effort to remember color but no effort to remember position (whether an image occurs on the right or left, up or down, for example). Pictures were more readily recalled than words. The average person (as compared with designers, who are always aware of color) does not notice or remember color unless it is associated with form, such as a red apple. Color coding of various departments may not be as effective a wayfinding aid as a "form" symbol.

Some of the most interesting studies have been done on specific buildings such as the Dallas-Fort Worth airport and Boston City Hall. Both of these facilities have been associated with incidents of psychiatric disturbance linked to spatial disorientation, which was shown to make people angry and hostile.

One study demonstrated that traumatically head-injured persons are impaired in discrimination learning and memory retention. They show a preference for color over form dominance, which is a regression to a type of information processing typical of an earlier developmental stage. Dementia, in general, caused a preference for color dominance over form. The implication, in designing for special populations (rehabilitation units, skilled nursing facilities), is that wayfinding aids should emphasize color over form.

The designation of floors below the entry level can cause confusion, as can the relationship among floors in different buildings. Avoid having floor 3 of one building linking with floor 5 of another.

**Summary**

Normally we move through our environment without being aware of the many cognitive processes at work directing our path. In hospitals, a differentiated environment rich in potential landmarks located at prominent decision points in the route helps people in finding their way. Jain Malkin

The author is principal of Jain Malkin, Inc., an interior design firm in La Jolla, California, specializing in health care facilities. Malkin is the author of Medical and Dental Space Planning for the 1990s, Van Nostrand Reinhold Co., 1989.

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Bio-Tables and Office Space

In the functionalist 1960s, science and technology became major players in the design of office furniture. That culture was characterized, according to Lewis Mumford, by standardization, precision, and control. Today, Japanese designer Isao Hosoe looks to reintroduce the human element, and he wants to go a lot further than ergonomics: He envisions design as a “trickster” that can provoke people to supersede uniform regularity.

Milan-based Hosoe has designed “Bio-Tables” for the Japanese company Toki; he thinks the tables play the trickster role which shows design to be out of the realm of science and technology and instead concerned with making people comfortable in the space they occupy. Hosoe’s design team, including Masaya Hashimoto, Ann Marinelli, and Alessio Pozzoli, started with research done in response to those functionalist 1960s, Edward T. Hall’s The Hidden Dimension. The text examines a field Hall dubs “proxemics”: “interrelated observations and theories of man’s use of space as a specialized elaboration of culture.”

Hosoe has made special use of two of Hall’s contentions. First, spatial features can either keep people apart or bring them together. Hosoe’s office looks for those seating arrangements which “concentrate and liberate energy.” Second, Hall presents eight distance zones for personal interaction; of these, the far personal (2½ to 4 feet) and the close social (4 to 7 feet) are the areas in which office interaction usually takes place. These distances ensure that people have protected personal “bubbles” but are still close enough to work together.

The result of this theorizing is the collection of Bio-Tables, 26 table tops that may be joined into infinite configurations, or can each function separately. The shapes are designed to appeal to the sensuous receptors of the body: Curves present “niches,” which are perceived to protect personal space and maximize opportunities for direct eye contact.

Others of Hosoe’s inventions enhance the sense of space found around the tables. Panels made of “Kakine,” a light, translucent material, can be clamped directly to the side of a Bio-Table, giving shelter and private space to the user. The same panels are available in the semi-permanent “Noren” umbrella. The umbrella, which incorporates an overhead lighting fixture, fits into the table and creates a boundary around the table for privacy, but does not completely remove the participants from the office.

The table tops can be made of glass or marble, plastic laminated, painted or clear-finished wood. They are supported by double-L-shaped legs bound together—each table has its own leg configuration—and joined by beams. A wiring cap allows cords to be dropped directly through the table and legs to the ground—and also holds the Noren umbrella.

The Bio-Tables introduce a dynamic element which transforms the monotony of a typical open-plan office; they show a concern for the interaction between people and their environment. At the same time, it is their transgressive tendency that Hosoe desires and calls the trickster. Andrea E. Monfried
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Books

Practice in Theory

We like travel guides. They lay out territory and outline history—in the hope that we will use them on a trip. In the case of these books, the tour is through the field of architectural theory. However, the terrain is hard to describe: “The theory of architecture” is not a well-bounded field. Architecture is like society: critical insights. These books, by authors contend that sexual equality is not yet a reality; subtle biases pervade the profession.

Peter Rowe seeks to describe and explain “design thinking”—his term for those “rather private moments of seeking out, on the part of designers, for the purpose of inventing or creating.” A patient search, yes. Joyful suffering, yes. Rowe’s inquiry is less poetic; he explores the inner logic of designers-in-action that enables them to collaborate in architectural practice with colleagues, managers, other professionals, and, of course, clients. Some of this group see “design” as a “problem-solving process”; Rowe explains that they understand “problem” in a variety of ways. One may have a well-defined problem comparable to a game or puzzle, or an ill-defined problem, akin to a social and cultural situation where the goals and boundaries are not well known at the start.

Much work on the procedures of design was done in the 1960s; it is refreshingly reviewed by Rowe in a way that might contribute to the discourse—and discord—between designers, managers, and clients. Architects’ professional service contracts and office practices, typically, embody a staged-process model of linear problem-solving (with a sequence of analysis, synthesis, development, and execution) that grew out of the traditional methods of 19th-Century schools such as the Ecole des Beaux-Arts and the Ecole Polytechnic. They emphasize the “parti” and its development. But, a more helpful model, Rowe suggests, might be akin to an “information processing” model, which explores how we advance from analysis to synthesis. Our professional work in complex social and technical settings leads us to agree. The process is not simply linear. Indeed, it would help in our relationships with project managers and clients if it were understood that designers switch and return as they work, and use various analogies as guides. Among the most potent devices are literal analogies. For example, an iconic analogy might compare a building to the human body; a canonical analogy might make it a perfect cube or sphere. In an environmental behavioral analogy, one relates the building to the climate, or to the social organization of the users. The typological analogy enables one to make a building with benefit of knowledge from prior solutions, elements of composition, or building types. The tracking through a “problem” is shown in this diagram of the design process:

Sketches by Robert Geddes.

Information processing model of the design process, according to Rowe.

Is this merely “methodolatry”? Alan Colquhoun believed it was, and sparked a counter-movement, which dominates Rowe’s book. The author explains that the designer is consumed with “knowing-how” as (continued on next page)
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To Jon Lang, this duality exemplifies the contrasts among different types of design theory. He sees the social-behavioral inherent in an explanatory theory and the limitations of a prescriptive theory. In Creating Architectural Theory, Lang attempts to broaden our understanding of the ways behavioral and social sciences have contributed to environmental design theory.

The goal of design, Lang argues, is to solve design problems and enhance human experience. A creative work of design, one that is truly helpful to an individual and society, therefore, can only grow from one’s empathy for people and a rich understanding of the environment.

Lang points out that much Modern and Post-Modern design ideology is based on deficient concepts of people and their behavior. A significant gap exists between what things to work and how they really function. It is important, he believes, to design from knowledge rather than belief; he proposes that we apply empirical science to “what is observable.” In this way, the behavioral sciences can provide basic knowledge for design, enabling us to build a body of theory that extends far beyond our limited, sometimes only personal beliefs.

Lang suggests a “positive” or predictive theory, “built” with scientific methods that rely on tests, and not simply hypotheses. He hopes to enhance the architect’s ability to correlate a designed environment for human behavior with an effective environment that is actually in use. In this type of design practice, one can find guidance in the methods, theories, and models of the behavioral sciences.

For the practicing architect, Lang’s call for the creation of a “positive” theory represents a challenge. We are all used to working with “normative” theories (as Lang describes them); they prescribe what is to be done in a given situation. By its very nature, “positive” theory cannot provide this “handbook” of guidance. Rather, it demands the commitment to study and understand problems, to generate possibilities and evaluate them as solutions.

In an office, providing adequate study time within project schedules is never easy. However, we have overcome conflicts about budgeting time by employing two aspects of Lang’s theory; each is built upon the method of quantifying and understanding “what is observable.” In the pre-design phase of a project, we rely on the client’s experience and our observations of a social institution’s continued operation. This social-behavioral input leads to a design with distinct patterns of behavior that can be analyzed by post-occupancy evaluations once the building has been finished. By bracketing the major “design” phases and setting them before and after services are provided, we can
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Design analysis of a building (Children's Seashore House, a rehabilitation hospital in Philadelphia, GBQC Architects, currently under construction), in the spirit of Jonathan Friedman's formal theory and Jon Lang's social-behavioral theory.

If Jon Lang is a believer in the behavioral sciences, then Jonathan Friedman is a believer in architecture. In writing *Creation in Space*, he has created a companion to the studio experience for those who "have spatial ideas and visions but lack the means to express, improve or evaluate them."

Friedman's text is organized around six carefully selected topics; he presents design exercises and accompanying texts together, to keep "the mind provoked while the hand develops its skills." The book succeeds admirably. The selected topics are clear enough to permit the text to explore design issues in depth and to offer insightful analysis. In contrast, the design exercises, involving both two- and three-dimensional design, require one to explore and discover. It is both a "handbook" and a "mindbook," emphasizing the search for the "whys" as well as the "how to's."

In correspondence with Rowe and his "information processing" model, Friedman cautions us that the study and practice of architecture requires one "to begin again and again and again." Design has four parts: thinking of issues, projecting ideas, doing, and reflecting. The designer must understand the nature of the problem, be aware of historical precedents, formulate critical intentions, and conceptualize possibilities—in short, one must be a fully engaged architect.

Robert Geddes and James Dill

Robert Geddes and James Dill are design principal and associate of Geddes Brecher Qualls Cunningham, Architects, in Princeton and Philadelphia. Former Dean of the Princeton School of Architecture, Geddes is now the Lace Professor of Architecture, Urbanism and History at New York University.


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Inside, all-natural Forbo Linoleum provides the perfect medium to repeat the massive sweep of the Stars ’N Stripes, in a highly resilient floor covering that inlays beautifully without the need for heat welding, and is very easy to maintain.

Originally the architect planned to use terrazzo for the floor. Forbo Linoleum not only came in at about half the cost, it offered a versatile palette of 36 colors that never wear off the surface. Environmentally safe Forbo Linoleum also resists cigarette burns and chemicals, retards fire, is anti-static, anti-bacterial and exceptionally durable, according to international standards.

Carol Ross Barney, AIA, is founding principal of Ross Barney + Jankowski, Inc., a Chicago-based architectural firm. For a complete case history and full-color literature on Forbo Linoleum sheet and tile, contact Forbo Floor Coverings—today.
The subtly Rubenesque lines and supple texture of *elle s'écoute il s'abandonne* (right), from The Talking Objects collection, were styled by Sergio and Monique Savarese, New York designers who founded Dialogica, a design and manufacturing firm, in 1988. The designers are concerned with furniture that stirs emotion, that sets up a dialogue with the senses and the body. The sofa is made using traditional upholstery methods (Pirelli webbing is stretched over a hardwood maple frame); it is the contrast of upholstery pulled taut over the sofa back and arms and the loose, wrinkled treatment on the cushion that gives the piece its voluptuous form and poetic nature. The sofa is available in velvet (shown), cotton, or customer's own material; it is 77 inches wide, 31 inches deep, and 28 inches high. Dialogica.

*The Manolete chair* (right), with its seductive posture and elongated spine, is one of the more expressively designed to come from the contract furniture industry in recent years. Spanish designer Alberto Lievore derived the chair's exaggerated proportions from toreador movements in the bullfighting ring; the chair is named after the famous 1940s Spanish toreador. Qualex foam wrapped in Dacron over a hardwood and plywood frame works to imitate the toreador's hat and stance when entering the ring; the single arm rest (it can be specified with two arms) represents his caped arm. Leather (shown) and a variety of other materials can be specified. Kron U.S.A.
This pendant luminaire from the LIMBURG GLASS line is hand-crafted from blown glass and made of three-ply opal glass. It uses incandescent or compact fluorescent light sources. BEGA.

On Call Care Management System has been introduced for use in long-term health care facilities. The system, which connects to in-place nurse call equipment, is a computer-based call identifier/locator and record keeping tool. Protec Central.


The six side panel offerings of the Silhouette Chair are interchangeable and provide six different cut-out profiles. (This product was incorrectly identified as being from the Philadelphian collection, P/A, Sept. 1989.) HBF.

A collection of vitreous and nonvitreous modular tiles called COLORSOUND replaces and extends the COLORSYSTEM collection and coordinates with the existing line of bathroom plumbing fixtures. Villeroy & Boch®.

Information on spaceframes from structural system types to application possibilities is included in this catalog. Mero®.

Standard-sized curved glass bow windows have been introduced and are available in Single Hung or Single Hung/Picture Unit combinations. Marvin Windows.

A variety of louvers, from standard performance to specialty versions, can be specified in several materials, weather-resistant finishes, and other options. Ruskin.

A square top table called "Quad-rondo" can be converted into a round surface by folding hinged flaps. Massini.

Two new pen plotters, DMP-61/62 drafting plotters offer "rapid throughput, standard eight-pen configuration, and easy user setup." Houston Instrument.

Recessed, edge-lighted exit signs have ultrasonically-welded acrylic panels with a wedge profile. Signs can be mounted in several configurations and specified in a variety of finishes. Lithonia Lighting.
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A new line of mirrors has been designed to coordinate with all colors and finishes of the existing line of bath faucets. Dornbracht.

Lincrusta relief wallcoverings, offered in a wide range of designs, are meant to imitate detailed plasterwork and can be painted. Friezes and borders are also available. Mile Hi Crown.

“Harley Systems Space Frames” is the name of a new brochure which includes diagrams and design configurations for the structural system’s pre-punched web parts and chords. The Ceco Corporation.

NEW PRODUCTS

(continued from page 122)
In designing the new United Airlines Terminal at O'Hare, Helmut Jahn has made an architectural statement that is memorable for its appearance and exciting in its distinction as one of the most outstanding airport terminals in the world.

So as not to repeat the typical spiritless and dismal environment so common to such facilities, Jahn uses conceptual clarity in the choice and combination of materials.

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NEW PRODUCTS

(continued from page 124)

Mirrored bath cabinets are featured in a new catalog, which introduces the RE:lect Wall Mirror System. Construction and detailing illustrations and product dimensions are included. Robern.

Circle 124 on reader service card

Computer Software

Mechanical and Structural Engineering

As computer-generated design has become an accepted architectural tool, P/A begins a theme-based monthly computer software column to report on the latest technology.

Two new workstation-based software programs, MicasPlus Analysis and MicasPlus Design, allow data to flow between project phases. With MicasPlus ModelDraft, full project integration is offered. Intergraph.

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A desktop engineering resource called "Your Engineering Solution"® for mechanical, structural, and electronic-related inquiries is available through the Information Systems Division's network of engineering VARs and direct support services. Fujitsu America.

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(continued on page 128)
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**NEW PRODUCTS**

(continued from page 126)

**Holiday Designs**

Last year’s “Design for Giving” was a success (P/A, Dec. 1988). This year P/A runs the section a month earlier to beat the crowds.

**NEW PRODUCTS**

Michael Graves has designed The Archaic Vessel Collection—two vases and a bowl—with inspiration coming from forms and shapes of the Etruscan civilization. Steuben (800) 223-1234.

**Building Materials**

Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.

Architect Giambattista Nollí's 1748 map of Rome's streets and buildings (82' x 68', assembled) is available in facsimile form, printed on acid-free archival paper. J.H. Aronson (914) 254-4176.

A functional polished pearwood triangle is handmade in Italy by Pierluigi Ghianda. Museum of Modern Art (800) 447-6662.

A hammered, silver-plated bowl designed by Charles Gwathmey and Robert Siegel and Richard Meier’s double-barrel candle holder for Swid Powell are two of the products offered in the Chiasso catalog. Chiasso (312) 642-2808.

A ‘blueprint’ paper weight is made of cast lead and hand-crumpled sheet vinyl by the New York design firm M&Co. for an authentic aesthetic. Chiasso (312) 944-2588 or (312) 759-2424 or (617) 437-0700.

Architectural building blocks called Archiblocks come in styles from Greek to Post-Modern. Sets include a variety of maple pieces. National Building Museum (202) 272-7706.

From Jefferson’s Monticello come reproductions of original furnishings as well as tableware, prints, books, and other products. Monticello Thomas Jefferson Memorial Foundation (804) 979-1776.

Leather desk accessories can be ordered in standard colors or in special leathers, called Vitello or Toscana, in a variety of colors. KnollExtra (800) 848-1400.

Handmade Mickey Mouse jewelry in cloisonne by Ettore Sottsass and others. Disney (800) 237-5751.

Nickel-plated enameled jewelry has been designed by Italian Bolidist Massimo Iosa-Ghini. ACME Studios (808) 878-2431.


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Trends in Houses

After looking at hundreds of houses as we were putting our annual December houses issue together, we began to see, amidst all the superficial diversity, some underlying trends. Modernism, it seems, has come back in a big way, although it is a chastened Modernism, one much more flexible in approach, as the fragmented and vaguely futuristic forms of Frank Gehry's Los Angeles house in the December issue shows. Other Modernist designs in December, such as David Hertz's house in Venice, California, also reveal the greater responsiveness of this work to urban conditions.

Historicism has certainly cast its net wide, with large numbers of houses sporting gabled roofs, arched windows, and columned entries. But the best of this work, such as Leon Krier's Classical tower at Seaside, Florida, pays great attention to scale and proportion and uses traditional materials and details, avoiding the cartoon character of so many houses.

A number of impressive projects stand somewhere between those two poles—Modernist houses that, in various ways, comment upon the history of Modernism. Examples in December include Dan Solomon's interpretation of San Francisco rowhouses in black shingles and perforated metal, Adele Santos's recall of Wright and Aalto in a Japanese house, and Rem Koolhaas's take on the clean forms and bright colors of Dutch Modernism in his Rotterdam house.

Vernacular buildings of all sorts provided another powerful influence on some of the houses in the December issue. Albin, Vasconcelos & Elisondo bow to the traditional courtyard houses of Mexico in their rambling Mexico City house, while Gerald Maffei nods to agricultural buildings in his design of a spare, metal-clad house in Texas.

December, in short, will have something for almost everyone.

P/A Awards Program

The eight jurors in the 37th annual awards program met for two and a half days in P/A's offices in early October. Culling through 788 entries, they premiated less than 3 percent of the total in the three categories of architectural design, urban design, and applied research. It was an exceptionally good jury—articulate, open minded, and outspoken—that represented a variety of points of view. There was, however, a remarkable consistency in the work that they selected, suggesting that, amidst all of the apparent confusion that seems to reign in architecture today, a critical consensus has begun to form. Stay tuned for a January issue full of challenging new work and lots of good commentary.
Now through December 15, 1989, NCARB is drastically reducing the price of the 1989 A.R.E. Handbook. If you're taking the graphic portions of the A.R.E. in December, the A.R.E. Handbook offers a comprehensive overview of what to expect. Actual design solutions and sample A.R.E. questions give you first-hand knowledge of the A.R.E. An audiocassette of design critiques is included with Volume 1. Follow along point-by-point to understand the practical application of the grading criteria as they are applied to graphic solutions from the 1988 A.R.E. New up-to-date narratives include developing a strategy to successfully complete the graphic exams as well as current information on new computerized testing technology developed by the NCARB.

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UNIVERSITY OF NEBRASKA-LINCOLN
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Faculty Openings

The Department of Architecture anticipates several tenure-leading Assistant Professorships for the 1990-91 academic year starting next August. 20. Applicants nearing the completion of the architectural degree or having significant professional experience in lieu of the professional degree will be considered for appointment at the rank of Instructor on a non-tenure basis. Candidates are expected to teach architectural design studios and additional courses in one or more of the following areas of specialization:

Architectural Programming/Post-Occupancy Evaluation The appointee will be expected to teach both graduate and undergraduate design studios which emphasize human behavior as the prime architectural determinant. Will also be expected to give lectures/seminars dealing with theory, method, research and findings from the social and behavioral sciences as applicable to architectural problem definition, programming, design methods, and building evaluation. Minimum qualifications are a professional degree in architecture and a Master's, preference will be given to candidates with advanced degrees and professional registration.

Building Construction/Professional Practice This appointee will teach and develop courses in building construction, materials and systems, as well as the organizational, legal, and contractual responsibilities of professionals. Minimum qualifications are a professional degree in architecture, a Master's and architectural registration.

Computer Applications This appointee will teach and develop courses in computer applications for architecture. Minimum qualifications are a professional degree in architecture, a Master's and evidence of progress toward architectural registration.

Lighting and Acoustics The successful candidate will demonstrate the ability to teach lighting and acoustics from a technical as well as design perspective. The minimum qualification for this position will be a professional degree in architecture, a Master's and evidence of progress toward architectural registration.

Structural Systems Design Teaching responsibilities will include lectures on the analysis and design of structural elements and systems, with both undergraduate and graduate students. Master's in architecture required and evidence of progress toward professional registration. Experience in structural systems desired. Candidates will also be expected to pursue exemplary scholarly or creative activities and additionally participate in advising, departmental duties, and service to UNL and community.

Send letter of interest by January 15 (or until suitable candidates apply thereafter) stating the area(s) of specialization for which you are applying, a curriculum vitae and the names of five references with telephone numbers to:

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Parc de la Villette
Paris

This canopy at La Villette (see p. 65–73) explores what engineer Peter Rice says is "the use of structural form to suggest a kind of structural instability." Along with architect Bernard Tschumi, Rice sought a structure that was "highly biased" to arouse a sense of wonder in its users. The canopy's vertical support consists of a leaning, tubular-steel column that is braced by a smaller steel strut and tension rods that extend to the top of the column. The undulating, corrugated aluminum canopy hangs from a tubular-steel box frame, stiffened by steel plate diaphragms. This box frame is, in turn, supported at the diaphragm locations by the tilted columns, which are connected to it by welded steel plates. Steel tension rods, which are tied back to a concrete pier foundation, also brace the box frame against racking, overturning, and wind uplift. One of the rods holding down the lower outside edge of the frame passes around each column by means of a steel collar. The canopy looks, at first glance, as if it is in a precarious state of imbalance, but further study reveals the care and ingenuity with which it is stabilized and supported.
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