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Edward Mazria and the AIA have a good point. The architectural community needs to do more to stop global warming. The Santa Fe, New Mexico-based architect's new online project, architecture2030.org, which launched January 3, is dedicated to reversing the building industry's contribution to global climate change (see "Web Site Promotes Zero-Emission Construction," page 15). While slightly less ambitious than Mazria's call for a "carbon-neutral" world by 2030, the AIA's recent positioning statement on sustainable design and resource conservation is equally welcome and necessary. The institute is advocating a "minimum reduction of 50 percent of the current consumption level of fossil fuels used to construct and operate buildings by the year 2010."

Both initiatives are well timed: According to data from NASA's Goddard Institute for Space Studies, a leading center for atmospheric modeling and the study of climate change, 2005 saw the highest average global surface temperatures since recording began in the late 1800s. It was also a year with the greatest number of Atlantic storms-turned-hurricanes (27 named storms, with 15 hurricanes, according to the National Oceanic and Atmospheric Administration). One of them, as we know—Katrina—wreaked the most extensive damage ever caused by a natural disaster in the United States.

Despite mounting evidence, cries of sketchy science and concerns about perceived economic debilitation have been used as excuses by our government for failing to take a leadership position on global warming. The controversy is increasingly less partisan: Six former Environmental Protection Agency (EPA) heads—five of them Republicans—logged exasperated criticism at a mid-January symposium commemorating the EPA's 35th anniversary of the U.S. government's commitment to the issue. There are undeniable problems with the Kyoto Protocol (for example, exempting high-polluting countries like India and China), but there is also no sense of urgency in President Bush's alternative energy strategy established in 2002: a voluntary "greenhouse gas intensity target." A disturbing January 29 New York Times article suggests insignificant policymaking could be the least offensive action credited to the administration in its approach to this problem: Officials at NASA have reportedly asked their public affairs staff to review and preapprove future public communications from James E. Hansen, director of the Goddard Institute, after a December 15 speech calling for immediate reductions in greenhouse gas emissions. If the government is indeed attempting to censor facts related to global warming, citizen involvement is that much more imperative, and not just to stop the burning of fossil fuels (but that is an editorial for another day).

The architectural community must take the lead on this issue, not only because our government hasn't, but because architects design buildings, and buildings contribute half of all U.S. global warming emissions annually, according to the U.S. Energy Information Administration. This includes the energy required to operate residential, commercial, and industrial structures, as well as the embodied energy in building materials such as carpet and glass. Targeting the gas-guzzling automobile industry is important, but not nearly as effective. Mazria and others have pointed out that not only do cars contribute far less in terms of greenhouse gases, they can be retired relatively quickly for a new generation of higher-efficiency products; a building, on the other hand, has an average lifespan globally of 70 years.

The onus for reversing the climate's calamitous trajectory should not fall solely to the architectural community. But given the built environment's contribution to the existence of greenhouse gases and their role as stewards of the public's health, safety, and welfare, architects are logical proponents of building practices that help curb the inevitability of global warming. In the absence of any meaningful direction from the U.S. government on this issue, it is heartening to see efforts made toward this end at both the individual and institutional levels.
Whose side are you on?

I was interested in your editorial on 2 Columbus Circle [December 2005, page 11]. I was surprised to read of your advocacy of preserving a building I believe is one of Edward Durell Stone's biggest failures. Brad Cloepfil and the poor folks at the Museum of Arts & Design must be wondering whether you no longer advocate renovations and new architecture unless they're more than 30 years old.

Horace Havemeyer III
New York, New York

The celebrity defense

In the Protest about museum expansions [December 2005, page 80], one significant project left off the list is the current $258 million expansion and renovation of the Cleveland Museum of Art led by Rafael Viñoly. While the article takes a negative view of the "celebrity-architect-designed museum," in Cleveland we believe in the significance of these facilities as an edifice where celebrity is important. It is noteworthy that our project team also includes local design firms.

Judson A. Kline
Cleveland, Ohio

Conduct unbecoming

In the piece about the Quonset huts book, the opening sentence concerning the U.S. Army of World War II being far better known for dropping bombs on houses than building them was very offensive [December 2005, page 74]. Far better known than what? Saving the world from fascism?

Larry McLaughlin
Oklahoma City, Oklahoma

Editor's note: The lead sentence of the review of Quonset Huts: Metal Living for a Modern Age generated several objections from readers. Judgment of the Allied Forces' actions was never intended, and the author regrets any offense that was caused.

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On January 6 an accidental fire struck Chicago’s Pilgrim Baptist Church, the nineteenth-century edifice designed by Louis Sullivan and Dankmar Adler. Fire authorities believe the blaze began from torches used by work crews on the roof. The 115-year-old building was in the midst of a $2.6 million restoration.

The loss has left an indelible scar on the parish, but one felt almost as acutely by the city’s architectural community. “It’s a tough way to begin this, the 150th anniversary of Sullivan’s birth,” says Ned Cramer, curator of the Chicago Architecture Foundation. “We’ve been planning architectural events, and now in a sense we’re planning a funeral.”

While mourned as a tragedy, the devastation has also had the effect of rallying church groups and preservationists both in and outside Chicago in the days following the blaze, triggering talk of rebuilding. Though plans remain uncertain, donations to the church have come in steadily—including a $500,000 challenge grant from the Pritzker Family Foundation—injecting hope into the South Chicago neighborhood of Bronzeville, where Pilgrim Baptist has served as a community anchor since the congregation’s founding in 1922.

Landmarked by the city in 1981, Pilgrim was an imposing fixture, boasting massive arches and rusticated-stone walls. The building was a trove of Sullivan trademarks, including richly detailed terra-cotta panels and vaulted ceilings. Architectural historians have also hailed the massive structure as an important example of a house-of-worship typology that emerged during the period: “Pilgrim was a hybrid between church and auditorium,” Cramer observes, “With its balconies and acoustics, it made worship less about witnessing and more about participation.”

Pilgrim Baptist originally opened as the Synagogue Kehilath Anshe Ma’ariv in 1891, becoming a Baptist house of worship three decades later and widely cited since as the birthplace of gospel music. Robert Klara

Architect Edward Mazria, known for his environmental awareness, has launched architecture2030.org. Through information from the Environmental Protection Agency and other groups, the website outlines the increasing threat posed by global emissions and identifies the building sector’s role: In this country, the construction industry now contributes over half of the nation’s emissions.

“People want to build green because they think it’s good for the environment,” says the Santa Fe, New Mexico-based Mazria, “but they don’t see the implications of not doing so.” Beyond global temperature increases lurks the far more dire possibility of rising sea levels—some research suggests the ice caps could melt as soon as 2150 if current emissions standards do not change.

The AIA recently issued a statement calling for a 50 percent reduction of building fossil-fuel consumption by 2010. Mazria’s site showcases projects that have achieved that reduction, but no specific guidelines for how to accomplish a carbon-neutral goal. Mazria believes that all new construction must reach zero-emissions and major renovations must cut energy consumption by 50 percent by 2030 to avoid catastrophic global warming and his argument is backed by NASA research. Is a goal of carbon neutrality by 2030 feasible? “I think it’s possible because it’s necessary,” Mazria responds. Katie Gerfen
MID-CENTURY BEACH HOUSE FACES UNCERTAIN FUTURE

Having weathered hurricane-force gales for 47 years, the Pearlroth House on the East End of New York's Long Island is now caught up in the winds of change. The dilapidated beach house—a 1959 creation of architect Andrew Geller—must be moved from its original site by spring and undergo extensive restoration work. Sufficient funds have been raised for the transport, but money and donated materials are still needed.

The distinctive-bowtie-shaped house belongs to Jonathan Pearlroth, son of the original owners, who recently donated $25,000 to help move the structure. But preservationists led by Jake Gorst, grandson of the architect and a local filmmaker, are still in negotiations with the town of Southampton (which has donated a plot of land) about scheduling. Gorst estimates it will cost an additional $150,000 to restore the structure's two side-by-side boxes, lifted 45 degrees until their opposing corners touched. "We're 99 percent sure this move will happen," Gorst says. "But we still need to raise money." Robert Klara

GETTY VILLA REOPENS AFTER RESTORATION

Boston-based Machado and Silvetti Associates, with local firm SPF:a, completed the preservation and restoration of the historic Getty Villa in Los Angeles at the beginning of the year. The lavish house-cum-museum reopened to the public January 28.

Alan M. Voorhees died December 18. He was 83. Known for his pioneering work in transportation systems and his role in developing the Interstate highway system, Voorhees created a model to predict traffic patterns early in his career that greatly informed his many subsequent highway designs.

Terence Riley, the chief curator of architecture and design at New York City’s MoMA who plans to leave the institution on March 1, has accepted a new position as the director of the Miami Art Museum, effective March 15. He replaces Suzanne Delehanty, who stepped down December 31.

Piero Patri, a San Francisco-based architect died January 14. He was 76. A cofounder of the firm Patri. Merker. Architects, Patri was responsible for such projects as the Hills Plaza, an 18-story addition to the historic Hills Brothers coffee plant on San Francisco’s Embarcadero.
Santiago Calatrava's 623-foot-tall Turning Torso mixed-use tower in Malmö, Sweden, opened to residents last November. The highest point by far in the surrounding landscape, the tower, which turns 90 degrees from its base to its crown, is a mix of residential units, offices, and commercial space.

Los Angeles architect James Pulliam died in December at 80 years old. He is credited with helping to shape Southern California's midcentury modern style and working to preserve area landmarks.

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Globalization and rising mobility are causing significant changes of emphasis in the Dutch urban landscape. Amsterdam, Rotterdam, The Hague, and Utrecht are increasingly merging into a network referred to as the "Deltametropolis." A good situation, tight communications, favorable climate, a well-educated workforce, and an international orientation place the region in a powerful position for global activity. The best opportunity for giving the Deltametropolis a recognizable identity lies in developing the Zuidas (Amsterdam's "South Axis"), a new hyperurban district encompassing 25 million square feet.

Despite all the feverish construction activity in big cities around the world, it is rare for the typical urban qualities of these developing areas to be exploited to best effect. The infrastructure throws up barriers and the architecture is generally anonymous, large-scale, and monofunctional; the character of the public space more closely resembles residual space, a description that also applies to the Zuidas—at least in its present state. The area marks the transition between pre- and post-World War II construction, a boundary currently evident as a wide bundle of infrastructure: a six-lane motorway, a railway system, and a metro line. The accessibility of the Zuidas is second to none. Amsterdam's Schiphol airport is four miles away and from 2007 onward, the station that stands at the heart of the Zuidas will serve as the terminus for high-speed international trains. By 2020, it is estimated that...
200,000 travelers will use the station each day. In the late 1990s, as part of a public/private partnership, my firm, Architekten Cie, in Amsterdam, teamed with the city's Physical Planning Department to design a master plan for the region. Over the coming years, the Zuidas will be transformed into a full-fledged city district. Toward establishing a sustainable and attractive urban landscape, beginning in 2008 the bundle of heavy infrastructure will be shifted underground over a distance of nearly one mile. The enormous amount of space consequently released above the infrastructure will be developed in densities that are unprecedented for the Netherlands, making the region of a similar scale to La Défense in Paris and the Docklands in London. In February, the Dutch government and the city of Amsterdam agreed on an investment of $1.2 billion to make this possible. Architects involved in the eventual building scheme include Toyo Ito, Michael Graves, UN Studio, Skidmore, Owings & Merrill, and Rafael Viñoly.

Establishing a new metropolitan area where urbanity and sustainability are the leading priorities is about emphasizing one of the most important qualities of the city: Everyone is welcome there. For as long as cities have existed, they have been the meeting place of rich and poor, of native and immigrant, of conservative and progressive, of artists, students, and the homeless. The city is the antithesis of the gated community. The question is therefore: How can the new and vast urban landscape generate this condition of interactions?

In the end, it boils down to two tasks. The first relates to the public space, which must be so congenial, varied, and attractive that it is space where people want to spend time. The second task is rooted in the program. It must give this whole array of people a reason to visit the new piece of the city in large numbers. Public space should invite as many different forms of use as possible. No enclaves should be tailored to just one function: obviously no covered shopping malls, and not too many pedestrian streets that banish other kinds of traffic.

The Zuidas will have a classical structure, with a rectangular grid of streets that defines the architectural blocks. The street profiles have been predetermined, as has a standard construction height of 100 feet. Accents are permitted at various spots in the form of high-rise buildings up to 325 feet tall.

Next, a rigorous mix of functions is a prerequisite for the urban pressure cooker that propels economic, cultural, and social development. The most important contribution will come from the transit station, which will ensure a continuous stream of people of an unprecedented diversity, from suburban school kids to VIP passengers arriving on the high-speed train from Paris. With the station as a solid programmatic basis, the rest of the plan strives to establish a bond to the new city district among as many people as possible. Residential space accounts for about half of the construction program. There will not only be owner-occupied and rental apartments for the top end of the market, but also a substantial proportion of residential property
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Development using only large-scale architectural units must be avoided in the Zuidas. A fine-grained structure is the only way to attain variation in form and function on a smaller scale as well. It is, moreover, a precondition for variety in economic activity, and thus for economic sustainability. Smaller enterprises that wish to lease a modest amount of floor space for rents that are within reach must also be able to find accommodation.

Both the physical space and the program are brought together in the task of making the streets of the Zuidas come to life. New York City shows us what is needed: The most important factor in the force of attraction on the streets of Manhattan is their street-level plinths—often two stories high—with intensive public functions. Exactly the same model is being aspired to in the Zuidas.

Sustainability means that buildings must be able to accommodate new functions over the course of time. The structures in the Zuidas must be designed in such a way that office buildings can potentially be transformed into residential buildings and vice versa. (Presently, about half of the space is intended for housing, and half for offices.) This also implies that the dwellings will enjoy extra-high ceilings.

Sustainability and long-term thinking also applies to energy consumption, the use of land, and urban ecology. Building an entire city district over and across a wide bundle of infrastructure realizes an ultimate form of dual land use. And since there will be roughly similar flows of traffic in both directions during rush hours (people who live in the Zuidas often work elsewhere and vice versa) the transport systems will be efficiently utilized. Installing a system of heat and cold storage for the whole of the Zuidas will ensure energy efficiency. The deeper reaches of a nearby lake will be used to store the coolness of winter until the summer. In addition, natural water reservoirs deep in the ground will be used to maintain the temperatures of warm as well as cold water. In a densely built urban area, there are only a few possibilities for temporarily storing water during heavy rainfall. Even though different kinds of water elements will be integrated in the public space, it will also be necessary to constantly monitor against peak levels. By covering the rooftops of buildings with greenery, a downpour of rain is prevented from entering the drainage system at full speed.

Amsterdam's Zuidas shows that the instruments of urban planning and program can make an important contribution to sustainability. In the end, this approach has its origins in a position that values not merely building a city for the clients of today, but especially for the society to which that city will eventually belong for a great many generations to come.

A version of this article was delivered at the Council on Tall Buildings & Urban Habitat conference in New York City last fall. The author, an architect and urban planner, is supervisor of the featured project.
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DEVELOPING SAVVY
A step-by-step introduction to the architect-developer equation erases some undue mystery. by Anita Moryadas

While architects are often integral to the development process, the nature of the individual steps involved therein and how to exercise control throughout the project can seem downright mysterious. The surest way to see an architectural vision become reality is to be your own client, which requires understanding the practices beyond design and construction that go into the creation of a new building, or the substantial renovation of an existing one. “It’s not about controlling the cost, it’s about controlling the product,” according to Byron Mouton, an architect with an integrated design/build practice in New Orleans. “Working as a small-scale developer is a way to preserve the luxury to make changes and improvements as I see fit during the building process.”

Although the steps necessary to seeing a development reach maturity are distinct activities, they often take place at the same time, and are frequently iterative. Development usually begins with an analysis of the real estate market. If there is insufficient demand for a given product type to be created, it won’t sell or be leased, and the developer will be stuck with an asset that isn’t producing revenue. Because the whole process takes anywhere from several months to several years, there’s a crystal ball element involved in predicting what the demand will be when the building is finished and ready to sell.

Once a particular need has been established, the next task is locating a site and acquiring it. Since a lot of property never hits the open market, it’s helpful to have other available resources for finding potential development sites. Contacts in the brokerage community are particularly useful because it’s their business to know what might be available soon. Once a suitable property has been identified, the developer will negotiate to gain control of the site. This can take other forms than outright purchase. For example, it may be possible to form a joint venture with the existing owner, or to take an option on the property while securing financing and going through other early stages of the process. The important issue is to have the exclusive legal right to make decisions about the disposition of the property.

Figuring out how to buy the property and pay for the construction or renovation often seems like the hardest part. Almost all projects are financed through a combination of equity (capital that the developer puts into the deal, which can include land or an existing building) and debt (money that the developer borrows from a bank for purchase or construction). The debt will either be recourse, meaning that someone (the developer or an investor) signs a personal guarantee for the loan, or nonrecourse, in which case the property itself is the guarantor. House mortgages are an example of nonrecourse loans. If a homeowner defaults on her mortgage, the bank repossesses the house because the house secures the loan. The borrower herself is not personally liable. The bank does not have recourse to the rest of the borrower’s assets for any monies outstanding on its loan. Development projects frequently require a personal guarantee, because construction lending funds a process rather than a product, and if the developer defaults in the middle of construction the lender would be left with an unfinished piece of property that has little value. (Value in this case equals what someone is willing to pay to purchase the property.) Banks prefer to be in the business of lending money, not of finishing belly-up construction projects or of owning real estate.

In the experience of Randy Brown, an architect and developer of housing, retail, and commercial space in Omaha, “If you do the proformas right, you don’t have to put much money in. But you have to have a good relationship with the
Understanding the respective comfort zones of equity investors and banks is key. Common equity sources aside from the developer itself are friends and family, private real estate investors, or the property owner. Each of those sources will want a different payback for contributing capital. If you go to your mother to secure the funds, she might not ask for interest or give you a limited and fixed period of time during which you can borrow this money. A private investor, however, may want a preferred return for the duration of the investment and a share of residual profits after the initial equity stake has been repaid. How much of a share? Every deal is different. The more experience the developer has, the better the deal it will be able to negotiate. How the developer is being otherwise compensated also enters into the agreements with investors. If the developer receives a development fee during the process it might take a smaller percentage of the profits on the back end. But an investor might not be willing to fund that kind of fee for a first-timer, and might require that the developer's total compensation come upon completion of the project, in order to encourage proper follow-through.

Banks are essentially conservative. They want to be sure that the developer will complete construction in a timely manner, that their principal will be repaid, and that they will receive interest on the principal for the duration of the loan. Above all, they don't want to be stuck with an unfinished building. First-time developers may need to show additional documentation as proof of their ability to complete the project and more in equity reserves in order to convince the loan officer to lend money. Architect/developers have a great advantage in already being familiar with the public approvals process, and the design and construction phases. As a developer builds up a track record and fosters relationships with lenders the loan terms will become easier to negotiate.

As with any process, the more experience you have the less likely you are to make what you will later consider mistakes. Brown cited an early oversight: "We had four acres of commercial property we were trying to develop. The bank required preleasing of some part of a proposed store to give them a ground lease, but without designating where on the site they would put the store. We didn’t have the knowledge or foresight to tell them where they had to be. Naturally, they took the choicest part of the property, which blocked visibility for the rest of the site, and has required very imaginative planning in order to create visibility and access to the remainder of the property. Down the line we regretted not having kept the big picture in mind and instead making a quick, short-term decision in order to keep everything moving. We were rushed because of the pressure from the bank, so we’ve learned that we have to slow down." Each development process, he added, will doubtless have similar “learning opportunities.”

The final step in a successful development is marketing the product. Mouton, for example, has taken the time to hone his territory carefully. "I live in New Orleans, a city where, I think, tradition matters now more than ever. I had been building duplexes and triplexes because I knew the rents would support the purchase price for a single buyer. I marketed them to people pursuing the same dream as me, and I knew that if I built well-designed affordable units, there would always be a population who wanted to live in them. Going forward, in the context of the city’s uncertain future, my approach will require more imagination.”

Educated as an architect, Anita Moryadas is a developer and writer based in New York City.
Situated at the base of a mountain in Georgetown, the capital of Penang, Malaysia, the 200-acre Turf Club Redevelopment—on the site of a former horseracing facility—comprises a new urban precinct that interweaves undulating strips of dense mixed-use development with the surrounding natural landscape. While green areas host public functions such as casual gatherings, festivals, and performances, the built components contain a variety of programming—from housing, retail, and offices, to cultural institutions and educational and medical facilities, as well as a convention center and hotel. High-rise towers at the base of the mountain overlook the rest of the development and serve as beacons to the city beyond, while bands of low- and mid-rise structures appear to flow outward from the slope throughout the site. The project addresses environmental concerns with features such as catchment basins where gray water is collected, filtered, and redistributed. Strategic configuration of open space allows air to move freely among buildings, promoting natural ventilation, and the north-south orientation of the façades minimizes solar gain. In addition, a public monorail system connects the site to existing infrastructure and to the future Penang Hill cable car. Construction is scheduled to begin in June. Anna Holtzman
The brainchild of developer Ali Sahabi, this 121-acre urban complex, which has been annexed into the city of Corona, California, boasts a mix of retail, residential, entertainment, and office facilities. But the central feature that sets the development apart from the plethora of planned live-work-play communities springing up across North America is Dos Lagos's "Heart": a 10-acre park inhabited by a four-acre, butterfly-shaped man-made lake with a central nine-foot-high waterfall. An undulating walkway covered by a 750-foot-long-by-16-foot-wide garden trellis of bamboo, concrete, and steel runs between the two lake halves and bridges the foot of the waterfall. At one end of the lake, the trellis curls around a 440-seat amphitheater for outdoor performances. A second, circular walkway circumscribes the lake, which is framed by mosaic-style multichromatic bands of landscaping. Surrounding the Heart are a series of densely developed districts devoted to restaurants, retail, live-work and senior living units, a hotel and conference center, and office buildings. A central artery runs through the ensemble—which makes up the western half of the larger Dos Lagos community—leading from one programmatic quarter to the next. Completion of the park is slated for this spring. Anna Holtzman
It’s difficult to improve upon the view of the Washington Monument and other icons comprising the DC skyline, but the newest landmark, the Mandarin Oriental Hotel, adds a dramatic entry to the Capitol at the 14th Street Bridge.

This nine-story hotel is topped with a striking mansard roof utilizing 20,000 sq. ft. of PAC-CLAD® Redi-Roof Batten panels finished in Hemlock Green. The Mandarin Oriental is part of The Portals, a mixed-use development that is the largest project in the history of Washington, DC. Brennan Beer Gorman Monk Architects designed the luxury hotel in the French style while reflecting the city’s iconic neoclassic architecture. The nearly vertical roof installation was done by Progressive Services, Inc., of Dover, PA.

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FLOWER POWER

In a time of extraordinary global conflict, what does peace look like? David Adjaye’s Nobel Peace Centre, which opened in a former railway station in Oslo last year, offers an answer of kaleidoscopic complexity, where bold color fields knock up against one another, contemporary materials awaken the building’s nineteenth-century interiors, and interactive displays transcend analog-world boundaries. Conflict resolution, he seems to suggest, is a contentious, multifaceted, nonlinear endeavor that looks far more appealing than its diametrically opposed counterpart.
PEACE KEEPER

ADJAYE/ASSOCIATES'S POLYCHROMATIC INTERIOR FOR THE NOBEL PEACE CENTRE REFLECTS THE CONFLICT AND COMPROMISE NEGOTIATED BY THE PRIZEWINNERS IT CELEBRATES.

BY LARS BANG LARSEN | PHOTOGRAPHS BY TIMOTHY SOAR

David Adjaye has said that he prefers the mindset of visual art to that of architecture, as the latter “takes on too much convention and baggage.” But the London-based architect may have had to adjust his philosophy when he won the invited competition for the Nobel Peace Centre, in which he had to take on quite a bit of tradition—and some heavy baggage, too—engaging the themes of peace, hope, and commitment. In public relations terms, however, the Ghana-born Adjaye was the man for the job, as his transcultural persona resonates in the institution’s global cult of outstanding individuality, and his growing reputation for democratically inclusive design, such as the two public libraries he’s recently completed in London, begins to influence that city’s architectural ethos. (An exhibition of Adjaye’s work is on view at London’s Whitechapel gallery through March 26.)

The Centre, which opened in Oslo last year to provide the prestigious pacifist organization with a public face, inhabits Vestbanen, the railway station that since 1872 has sat quayside near the city’s core. It also now faces the pontificating redbrick towers of City Hall, designed in the 1920s by Arnstein Arneberg and Magnus Poulsson and opened in 1950, and where the peace prize is presented. Faced with strict limitations from cultural heritage authorities (existing walls, for example,
Set within an Italianate edifice (facing page) that once housed the Oslo train station, the Nobel Peace Centre speaks quietly to the public realm—only a metal-clad pavilion announces its presence—but is uninhibited in its internal expression: A tomato-red reception/bookshop (above) is an initial indication of the vibrantly rehabilitated spaces beyond.
could not be moved), Adjaye responded with a series of distinctly different interior spaces that engage the framework of the host building: a scenography that mixes the sophistication of the high-tech world with everyday materials. “I thought of it in a filmic way, in order to develop the individual rooms as scenarios with specific readings,” Adjaye explains. “There was no longer a threshold between art and architecture, but only one in terms of a narrative sequence. Each space would be a complete construction and universe, like a scene in a film.”

Two massive frames signal the beginning of Adjaye’s cinematic production. The first is a freestanding aluminum pavilion set in the plaza in front of the building, the other an interior tunnel in the Centre’s lobby. Both are adorned with world maps drawn with perforations, and the tunnel emits voices in a multitude of languages that speak of peace and conflict. Beyond the lobby is the “Passage of Honor,” where a video projection presents the current prizewinner. All of its surfaces are covered in highly polished bronze to evoke the gold of the Nobel Prize medal. Upstairs, the “Nobel Field” unleashes a digital extravaganza: inside walls of blue-toned glass is a garden of digital monitors swaying, like flowers, on slender metal stalks and displaying biographies of the laureates activated by sensors in response to a viewer’s presence. An interactive book about the life of Alfred Nobel and a digital archive of the prizewinners’
Prohibited from moving walls or making other substantial alterations to the landmark building, David Adjaye developed a series of singular spaces within the existing shell: a tunnel (facing page) in the entrance lobby—a perforated metal form that echoes the outdoor pavilion—functions as an audio chamber where visitors hear from people around the world; and the Nobel Field (above) houses nearly 100 sensor-activated monitors that offer information about individual peace prize laureates.
accomplishments augment the information flow. (The high-tech installations were developed by artist/technologist David Small, of Cambridge, Massachusetts-based Small Design Firm, and Timon Botez, a Norwegian-born artist/information designer based in London.)

In contrast to the multimedia show, the Centre’s galleries are understated. These are spaces built to accommodate events and temporary displays. The downstairs gallery (originally the station’s departure hall) is a white cube, the ceiling prosaically laying bare mechanical systems. The smaller, upstairs gallery has walls and sliding panels of stained Norwegian larch and is visually warmed by a floor in the same material.

In other spaces, new embraces old in a meeting of the building’s original fabric and Adjaye’s conceptual endeavors. The London-based artist Chris Ofili’s café design, for example, benefits from existing elements. Here, a section of nineteenth-century ceiling, in rustic yellow, activates the vibrant green shades of his hard-edged wall paintings.

Beyond the upbeat shifts of moods and materials, Adjaye’s hybridization of art and architecture faced a formidable task of ethical fitness: to give peace a home. As suggested in the documentaries about the prize recipients shown in the Centre’s cinema, known as The Eye, peace is a complex process held together against all odds by persistence, sacrifice, and political hustle. With his polychromatic interiors
The Café de la Paix (facing page) is one of several collaborations at the Nobel Peace Centre between David Adjaye, artists, and media-technologists. Here, London-based artist Chris Ofili painted an ornate, if hard-edged, pattern in shades of green that engage the coffered wood ceiling of the original interior.
Adjaye has created a public space that breaks with traditional Scandinavian aesthetics of harmony, which is one way of reflecting on the complex nature of peace and conflict.

Lars Bang Larsen is a writer and curator based in Frankfurt am Main, Germany.

Nobel Peace Centre, Oslo, Norway
client: Ministry of Modernization architect: Adjaye/Associates, London—David Adjaye (architect in charge); Mansour El-Khawad, Nikolai Delvendahl (project directors); Jennifer Boheim, Ana Booth, James Carrigan, Carolin Hinne, Yuko Minamida, John Moran, Paul La Tourelle (project team) engineer: Telje-Torp-Aasen Architects (structural) general contractor: Statsbygg construction manager: T-2 PA-team area: 32,400 square feet cost: $16 million

Specifications
elevators: Heis Tek escalator: Thyssen Rulsetra power and telecommunication systems: YIT Building Systems
The journey from one realm to another is a consistent theme in Adjaye's design for the Centre. In the Passage of Honor (facing page), the current Nobel laureate is featured (photos show last year's winner, Wangari Muta Maathai). Back outside, the freestanding entrance pavilion is a threshold between Oslo City Hall and the Centre. Built in a Norwegian shipyard, the pavilion is articulated by perforations in its aluminum skin that outline a map of the world.
The reincarnation of a Detroit factory makes believers of the city’s design officials. BY JULIE SINCLAIR EAKIN

Until 20 years ago, smoke trails from the automotive plant chimneys wove veils of husky colors in the skies over Detroit and produced unnatural sunsets that were oddly comforting. In photographs of the city today the stillness of urban decay can almost seem poetic, but proximity to the fields of modern ruins there, engaging all the senses, quickly dispels that image. This is a place whose economy dictates the theft of mechanical systems from the roofs of buildings as soon as they’re vacated. Creating a meaningful architectural present for a former industrial power whose past still strongly identifies it requires respect, and also a measure of hope.

For the recent adaptive reuse of three separate derelict structures from the Thorn Apple Valley sausage factory into maintenance and distribution facilities for the public school system, the local AIA chapter has twice awarded Van TinelGuthrie Studio for recognizing a certain quality of the rough East Detroit area and providing an appropriate response. "We’re not afraid of addressing gritty issues and allowing them to inform our projects," says design principal Michael Guthrie.

The once thriving industrial area, where thousands of broken warehouse windows now frame views of weedy lots, features a series of paved streets that end abruptly—evidence of an expected population that never arrived. Adjacent to the site is a community of 1920s housing, much of which is burned out, yet in which people continue to make their homes. Unsurprisingly, the architects faced significant security considerations in their renovations. For example, they wanted a new entryway for the first, 130,000-square-foot building, now a maintenance hub, in order to provide a visual connection to the surroundings. But the equipment to be stored inside was valuable and the glass block façade preferred by the client would, they feared, ensure its prompt removal. Their solution was to erode a corner of the early twentieth-century brick structure and build a light-filtering canopy of industrial catwalk grating and trumpet creeper vines that extends down to become an enclosure. The exposed form, courtyardlike in sensibility, announces the presence of the reception area within and allows workers occupying the building 24 hours a day to enjoy the outdoors during their breaks. Corrugated metal panels fill the sizable sash openings of the former packaging warehouse to protect the maintenance machinery. A clerestory volume, now lined with polycarbonate panels, invites diffuse light from above, and offers better insulating properties and a safer, more economic alternative to glazing.

Retaining the industrial shed aesthetic was a priority in reconfiguring all of the structures, which were conceived and renovated independently. In the second, 170,000-square-foot distribution center, the architects sliced away the decayed concrete of the north façade, Gordon Matta-Clark style. Corrugated metal was an obvious choice for cladding, considering its prevalent use as a patching material to fill holes in walls of industrial buildings throughout the region. The composition of the new façade combines panels oriented vertically and horizontally, updating its material identity; its character is articulated further by occasional, small, framed openings of translucent glass denoting spaces such as conference rooms.

Inside, the warren of haphazardly constructed rooms confronting the design team in an initial flashlight foray was frightening, with gruesome slaughtering devices emerging from the shadows overhead. Clearing a path for circulation through the eight levels—many just a difference of two
steps—in the gargantuan 20-foot-high space was imperative. To that end, the interior drywall divisions that had accumulated pell-mell over the years were completely gutted. Several existing ramps in the concrete floor were unearthed and preserved and now accommodate the easy movement of people and machines in an open environment. The building houses numerous school distribution departments Guthrie likens to small villages (storing, for instance, truckloads of supplies such as crayons), with shared common gathering spaces. A third building housing site maintenance equipment was given a similar façade treatment; its upper level has yet to be programmed.

Notwithstanding a $1 billion bond received by the city for the capital development of its school facilities, the firm provided an exhaustive cost analysis for the $25 million project as part of its preliminary study, with the goal being dematerialization. That is, literally cutting down on the materials specified for existing plans and instead investing in solutions that enhance the work environment, such as task-oriented lighting. They eliminated huge quantities of drywall framing and acoustical ceilings, for instance, in their own, more careful typological transformation. This economy of means also served their users' needs: for example, those employed to respond to maintenance emergencies at the schools have few such tasks to perform in their own workplace.

But the result of the architects' efforts resonates beyond those it immediately addresses. "With an increased presence, it will become more habitable," says Guthrie of the still ghostly area. The potential he sees is indicated by the Drug Enforcement Agency's recent move from a neighboring structure, as it no longer has the anonymity required for its covert operations.

Thorn Apple Valley District Redevelopment, Detroit, Michigan


Specifications and Suppliers
metal siding: Wolverine Construction polycarbonate panels: Polygal custom woodwork: Sterling Millwork lighting: Guth, Finelite
MAINTENANCE HUB. Increasing the structure’s visibility by removing a corner to create a significant entrance is a boon for workers, who relax in the ersatz courtyard in their free time. The gesture also makes the area safer, as it deters criminal activity because everyone approaching is in clear sight.
“Smart, elegant, and fun, this project takes the city's detritus and turns it into urban delight,” reads the jury comment for the 2005 AIA Detroit Honor Awards. Eight different additions had rendered the building illegible (see existing conditions photo on preceding pages) by the time Van TineGuthrie Studio began its reconception in 2001.
FACE VALUES

Active façades are proliferating worldwide. What message is this new medium sending? By C.C. Sullivan
Make way for the active skin.

Building façades and walls are changing before our eyes, reacting with apparent intelligence to the news, the weather—even our physical proximity to the structures. Some announce the activities they contain or the building's use and occupancy ("open to the public," for example, or "home team plays tonight"), in ways both transcendent and trite. Others play games—literally—with the outside world, tricking the eyes of passersby or treating invited parties to both dialogue and diversion. The range of these projects astounds, not so much for the content, but rather for what it portends for the future of architecture and the architect's role therein.

On Berlin's Potsdamer Platz, for example, an eleven-story double-glass wall shimmers with rapidly shifting artistic imagery: a computer screen on caffeine. In the Jianbei district of Chongqing, China, a prominent 550-foot-long container for shops and offices exerts its presence through synchronized, rotating graphics that echo the commercial zone’s numerous billboards. And back in Germany, a balloonlike soccer stadium glowing red slowly fades to electric blue, announcing the jersey color of the visiting team taking the field that night.

With the highest-tech or more mundane means, a few architects are synthesizing edifice and communication in startling ways. Marshall McLuhan anticipated this development long ago, well before he died in 1980. So if the medium is the building—what's the message?

One answer is that architecture for our time cannot afford to be static. Another is that ornament has once again
escaped the architect’s clutch. On the former point, consider the robotic envelopes on the lab bench at the Massachusetts Institute of Technology and under production in Europe, energy-saving arrays that stir collectively as do fields of sunflowers and, like frog skin, respond instantly to changing cloud cover and ambient humidity. Regarding the latter, who expected that Blackberry-wielders would one day play Pong, the antediluvian bar game, on the face of the French National Library?

Could all these photo-gymnastics be just a flash in the pan? Not likely. A few years back, the digerati predicted virtual realms and dematerializing environments, not video wallpaper and cities of screens. But much like the billboards of yore, digital signage—almost all in the service of commerce—has staked its claim along our highways, and in our malls and drive-thrus. And, in at least one popular application, the impetus of trading cheap cashiers for cheaper automata is driving down the costs of interactive displays. The replacements take your order and infotain you.

Of course, less pecuniary interests have converged on the active façade, too, including influential thinkers. Toyo Ito, who calls architecture “media-clothing,” led the way in 1986 with his seminal Tower of the Winds in Yokohama, Japan. Today, the avant-garde probes the outer limits while the old guard eggs them on, like Robert Venturi and Denise Scott Brown trumpeting “Viva electronic pixels over decorative rivets!” A dozen major conferences on interactive façades and displays convened last year, everywhere from Tokyo to Silicon Valley. Academics and techies have spawned a new jargon to describe these “context-aware”
systems and their impact on the so-called "operational metropolis." And with new technologies have come new façade-system integrators and mediascape designers, although most have yet to taste large-scale work.

Still, while some big projects are mired in planning (and many fantastic built schemes have been value-engineered down to LED reader boards or hand-cranked sunshades), enough full-building applications exist for this nascent movement to claim critical mass. A few offer useful typological comparisons while also illustrating a central problem posed by Scott Brown: Whether architects will "surrender the creative tasks of symbolic communication via architecture to the graphic artists who design the LED messages."

The answer could be more about technology and design than division of labor. On Potsdamer Platz, for example, video-programmer John deKron and multidisciplinary firm realities:united, led by architect brothers Jan and Tim Edler (who, in 2001, developed the permanent light installation BIX for the Kunsthaus Graz in Austria), created the "light and media façade" installation SPOTS on an office building in Berlin. Essentially a low-resolution array of dimming fluorescent lamps, this temporary installation is nonetheless much more complicated than a billboard. (It includes two interactive features, one that allows passersby to type in questions on a keyboard, and another that invites artists to submit their own designs for display.) Still, the technology remains relatively easy to execute, and so has found homes on museums and boutiques from Hong Kong to Paris.

At Herzog & de Meuron's Allianz Arena in Munich, the form and active matrix are one. The stadium's exterior is a
Located north of Munich, Herzog & de Meuron's Allianz Arena is covered in 2,874 lozenge-shaped pneumatic cushions, each made of a two-layer microthin EFTE foil. Over 25,000 fluorescent tubes, fitted into light boxes behind the cushions, illuminate the stadium in single colors (red, blue, and white) or combinations of them.

A blanket of 2,874 lozenge-shaped cushions, each an inflated membrane just 0.2 mm thick, and illuminated from behind by red, blue, and white fluorescent tubes. The temporal, changeable nature of Allianz's backlit “display” suggests a transience or separation from the architecture, just as the pneumatically supported façade is independent of the concrete structure within. The architects envisaged a limited palette of pixel colors and patterns for the rhomboidal checkerboard, but other modes are easily achieved with the eight lamps ensconced in each inflated panel. So the concept is “sufficiently robust,” to quote the designers. But couldn’t it be hijacked at any time?

Analog designs are robust, too, and Skidmore, Owings & Merrill (SOM) worked with an old standard—the tri-vision billboard, or louver, system—for the Jianianhua Center in Chongqing (see “A Better Billboard,” page 50). Unlike digital signboards, the rotating graphics are readable from both inside and out. They also serve as an active screen, offering occupants changing glimpses of an adjacent park. SOM’s low-tech foray belies the high-powered impact this façade has had on its host city. Its unhurried, more ceremonial sort of responsiveness befits an urban landmark.

Which offers a useful message for this brave new medium: Bleeding-edge electronics don’t make façades active. Architects do.

Author, consultant, and former Architecture editor-in-chief C.C. Sullivan writes about architecture and technology. He is currently writing a book on active façades and architecture.
PUTTING ON AIRS

The durable, lightweight roof of a Swiss car park is a model pneumatic design.

by Robert Klara

When the municipal authorities in Montreux, a resort cradled by the foothills of the Swiss Alps and hemmed by the shores of Lake Geneva, sponsored a competition for the enlargement of the car park serving the town's train station, specifications fused the technical with the aesthetic. Mandating 70 additional parking spaces on the rooftop level of an existing two-story structure built partially below grade, Garage Parc Montreux Gare (GPMG) officials also required a support-free span to shelter the 92-foot width of the new parking area. In keeping with Montreux's architectural heritage—Edwardian hotels nose their cornices out along the boulevards—GPMG additionally desired that the roof be un objet d'art utilitaire.

Art notwithstanding, it was the prohibition of columns that initially troubled architect André Luscher, principal of Lausanne-based Luscher Architectes, which would submit the winning design. “The requirements challenged us to try something unique,” he remembers—and gamble on a pneumatic support system never before realized at so long a span.

The roof employs a patented technology called Tensairity (an amalgam of “tension,” “air,” and “integrity”); developed in 2002 by Airlight of Biasca, Switzerland. Taking the place of a conventional steel girder is a pressurized “airbeam”—a cigar-shaped tube made of silicone-coated fiberglass fabric, inflated to 125 millibars. Managing compression and tension are a pair of box-steel struts, one that runs lengthwise along the top of the tube and another that runs concurrently below the underbelly, both fastened tightly to the envelope by a bolted steel plate. The top strut, or “compression element,” bears the load, while the lower member addresses shear force in the wind's perpetual attempt to upend the structure. Prestressed by the pneumatic tube, the members do not buckle despite their considerable length. “The airbeam has a stabilizing function while the loads are carried by the struts,” summarizes Mauro Pedretti, Tensairity's inventor, who refers to his system as “a beam on an elastic foundation.”

GPMG features 12 such airbeams, spaced at 19-foot intervals, the ends of which rest on perimeter columns anchored in the concrete floor. A roof of fiberglass fabric covers the airbeams, which are hooked up to computer-driven compressors that inject air as pressure bleeds. The system's primary advantages exist both in breadth (“It is fabulous to park your car without columns hindering you,” Luscher comments), and materials. “This is much lighter than a traditional wood or steel roof,” explains Pierre Bays, a design engineer with Daniel Willi, civil engineers for the project, “because the membrane alone takes the function of what would otherwise be secondary structure such as cladding and waterproofing.”

But GPMG's enduring asset may be its programmatic flexibility. The filtered daylight distributed uniformly through the translucent canopy, together with the absence of intermediate support columns, transforms the rooftop parking area into a broad civic plaza. “The space can also be used for events like a covered marketplace or an antique market,” Luscher says. A useful car park, then, even when there are no cars to park.
The twelve cigar-shaped pneumatic tubes of the roof system dispense with the need for intermediate support columns in the garage, facilitating traffic flow and maximizing parking area. The translucent fabric transmits uniform natural light by day, while at night concealed multicolored lamps create a variety of visual effects.

**Garage Parc Montreux Gare, Montreux, Switzerland**

**client:** Garage Parc Montreux Gare  
**architect:** Luscher Architectes, Lausanne, Switzerland—André Luscher (project manager), Stephane Baeriswyl  
**engineers:** Daniel Willi (civil); Airlight (roof)  
**consultant:** Electric Claudio Merlo Lighting Equipment (lighting)  
**general contractor:** Zschokke  
**area:** 5,674 square feet  
**cost:** $640,000
Sometimes, the simplest solutions are the best. The San Francisco office of Skidmore, Owings & Merrill (SOM) found this to be so during the design of the façade of the Jianianhua Center in Chongqing, China. Faced with creating a dynamic, active skin for the large-scale office and retail building that would harmonize with the surrounding billboard-laden environment, the design team rejected LEDs, movie files, and other more contemporary contrivances and turned to an active billboard technology that has been around since before the analog days: a system of rotating, three-sided louvers—"tri-vision," as the sign industry calls it—to achieve the desired result. "It is really a low-tech system, and that is what is so interesting about it," reflects Lonny Israel, director of SOM’s Graphic Design Group, the six-member, multidisciplinary team that created the building's displayed images.

The system of louvers, 148 in all, situated behind a glass curtain wall and illuminated by metal halide fixtures mounted in a trough between the glass and the rotating panels, is run by a proprietary program on a standard PC that can turn one, several, or all of the louvers simultaneously. Each is moved by an individual motor, which allows for a high level of control and programming. The louvers turn within seconds, but it takes 11 seconds after one movement to process the next, allowing for passersby to register each change before the next one occurs.

Three complete images are visible on the façade one at a time, one on each side of the billboard panels. Low-tack vinyl sheets are printed on a very large format inkjet printer and affixed like sheets of wallpaper to the louvers. The sheets are then handcut along each seam. For the building’s dedication last January, the design team created a colorful flower image in three scales. "We felt like we needed to design something that had some resolution," explains Israel. But what took the most consideration was not the image, it was the choreography. "All of the panels move at one time, that's standard," notes Israel. "But what we thought was more interesting was to have the panels in constant motion. We created whole images, but [realized that] they are more dynamic when they are fractured and abstracted." The team programmed a sequence in which some louvers turn but others don’t, allowing the colors to interact while the flower images are interrupted. Once the basic choreography was sketched out, the designers communicated with the Chinese manufacturers of the billboard system via a series of PowerPoint presentations to determine feasibility. "It was different from what they were used to,"
Three-sided louvers mounted behind a curtain wall turn to create the images on the façade.

says Israel. “It took some conversations.”

In testing the system on site, the team had a distinct advantage, because the client’s office is across the street from the Jianianhua Center, so SOM was able to compare the slide shows they had created on screen with the actual programming that was taking place on the façade, tweaking and fixing rotations in realtime. The final five-minute sequence of choreographed images is on a loop, but since the average passerby sees only a minute’s view or less, the illusion of a constantly changing image is easy to maintain.

Despite the relative simplicity of the display system, the façades have made an impact on the community, in part because of the clients’ desire for the installation to be a piece of public art. Since the building was dedicated in time for last year’s Chinese New Year’s celebration, the graphic design department at SOM marked this year’s holiday with a new series of three images and another sequence of choreography that debuted last month.

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"Being creative within the realm of functionality is important," says developer Diane Botwin Alpert. "The mundane can be beautiful." In Alpert's world, the simplest structure with the most ordinary program and meager budget could catalyze a neighborhood's climb from the crevasse of economic despair. In the case of Flex Storage Systems, a property developed by Alpert in a blighted exurban neighborhood of Topeka, Kansas, respect for the potential of a traditionally neglected, too-common building type has indeed yielded beauty.

The self-storage business was the recommendation of a market study done by Alpert's company, Botwin Family Partners, for the redevelopment of an old strip mall. The suggestion was initially disappointing to Alpert: "Not that I have anything against storage facilities," she says. "But, wherever they happen to be, most do not look like they raise property values." Determined to realize more from the building—in terms of its purpose and aesthetic—than normally expected from a self-storage structure, Alpert engaged a design team that included not only an architect (unique enough in the quick-and-dirty prefab world of such facilities), but a lighting designer and a landscape consultant. "I didn't want to just slap up a metal building; it wouldn't have been respectful to the neighborhood," says Alpert, who hoped to aid the struggling locale while simultaneously creating a viable business.

The resulting structure rewrites the coarse vocabulary of storage facilities into an elegant sentence. "It was about reducing everything to a high level of pragmatism and common sense, about getting to the basics, and then becoming rigorous with those basics," says Josh Shelton, whose Kansas City, Missouri-based firm El Dorado designed Flex. He estimates that 80 percent of the building materials were catalog-ordered, from the pre-engineered structural steel and roofing systems to the interior storage units and lighting fixtures. Those materials are in step with expectations for the building typology; it's how they are integrated that chronicles the team's talents. "There was a high awareness of how the skin was developed in detail," says Shelton. On the north side, ribbed-metal overhead doors in four bright custom colors punctuate a band of corrugated Galvalume, which is crowned with an 11-foot-tall horizontal expanse of polycarbonate glazing, vertically creased at 2-foot intervals. The tongue-and-groove cedar planks that line the underside of the roof overhang and are featured around the entrance also speak of linearity—but more loudly of simplicity, a statement that presides throughout. Even the beds of native prairie grasses, which Alpert notes require virtually no maintenance, stress the design's avoidance of the superfluous.

Frugality is also gracefully interpreted in the lighting approach, in which three off-the-shelf solutions are employed to illuminate the entire 24,000-square-foot building—a feat lighting designer Derek Porter, of Kansas City, Missouri-based firm Derek Porter Studio, attributes in part to his "Midwestern agrarian roots." Integrated skillfully into the architecture, the fixtures quietly provide functionality as well as a personality...
for the structure at night. In particular, the luminaire arrangement at the north-side loading dock speaks to the project's fluid incorporation of the practical with the aesthetic: A wet-location industrial lens fixture (to thwart vandalism), placed within a cove between the façade and the rolling door, simultaneously illuminates the loading dock and, when the door is up, the interior of each unit, while also washing the colorful doors with light for visual punch. Above, the polycarbonate glazing glows with illumination from the same basic source—4-foot T8 fluorescent strip lights—mounted inside. The third source appears in the office space, an arrangement of the same lamp partially customized to create a decorative pendant. Porter believes that, as trite as terms like "lantern" sound, "it really became this for the community." According to Alpert, the building's nighttime presence has helped reduce crime in the neighborhood, a goal established in her preliminary discussions with the community.

The Flex story teaches another lesson, one not as romantic. Alpert's initial analysis of the area indicated a failing of its obsolete buildings was their inability to adapt to the neighborhood's changing character and requirements. Flex responds to this shortcoming with a structure that can be easily reconfigured into other kinds of space (office, retail, community service), if and when the time comes. Despite these intentions and well-laid plans, however, questionable decisions by local planners have foiled quick progress. Since Flex's opening in 2004, Alpert notes, the city has approved zoning for five other storage facilities "all within a mile of ours, so not only does that dilute the market competitively, but it turns the neighborhood itself into a storage facility, which is tragic." The point being that even the best design only goes so far without a planning initiative that encompasses immediate needs and long-term goals.

Tongue-and-groove pine and custom-colored garage doors brighten the interiors of Flex, which during the day, are almost entirely illuminated with sunlight filtered through the polycarbonate glazing system.

1 polycarbonate glazing system
2 T8 fluorescent luminaire
3 Galvalume flashing
4 cedar trim
5 steel overhead door
Throughout Flex, luminaires are carefully integrated into the architecture; in the office (above, left and right), however, "we helped shift the identity from the rest of the facility by exposing the fixture," explains lighting designer Derek Porter. Simple T8 fluorescents are customized for a sleek pendant. The light-enhanced north face of the building glows at night (bottom)—a vast improvement over the dreary strip mall it replaced (below).

Flex Storage Systems, Topeka, Kansas
client: Botwin Family Partners architect: El Dorado, Kansas City, Missouri lighting designer: Derek Porter Studio consultant: Off the Grid (landscape) general contractor: Kelley Construction area: 24,000 square feet

Specifications and Suppliers
A meeting of industrial and elegant design, the Quatrix wall sconce combines metal trim with clear or "ice-etched" glass (right), as well as a variety of standard and customizable faceplate options that function as signage. Other metal finishes include an iron-gray or metallic bronze (left) grating. A little over 4 inches deep and 11 inches square, the fixture accepts a variety of lamp types.

Featuring a 1-inch-wide and 2-1/2-inch-high profile, Stick takes two standard or high-output T5 fluorescent lamps in its 8-foot housing. Optional trims are available, including perforated shields, direct/indirect asymmetrical diffusers, and various lenses and louvers. The fixture can be ganged together for continuous runs.

To complement the popularity of stainless-steel appliances in residential kitchen environments, Lutron has added this contemporary finish option to its Fassada (shown) and Claro wallplates, for coordination with black dimmers, switches, and receptacles. Featuring a clean appearance, with rounded edges and no visible screws, the wallplates are available in one- to three-gang configurations for Fassada, or one- to six-gang for Claro.

D68 was introduced to the European market by German manufacturer Leccor in the 1980s, but only recently arrived in the United States, courtesy of Visio Lighting. Suitable for both indoor and outdoor applications, the luminaire is available in lengths up to 6 feet. Cutouts in the stainless-steel housing both provide a design detail and control light distribution from the compact, T5, or twin-tube fluorescent source inside. The cylindrical luminaire can be mounted to the wall directly or anchored using a rod.
Designed with versatility in mind

Arcos ID is the latest addition to Litecontrol's Arcos Family—a complete line of high performance light fixtures with a compact, arcuate-shaped design. An indirect/direct fixture, Arcos ID now joins Arcos, Arcos Perf II, and Arcos Slots, to provide a broad range of design tools for achieving quality lighting.
Addressing the need for energy-efficient options with an eye toward aesthetics, this linear pendant fluorescent luminaire offers bidirectional light with an optional built-in occupancy sensor, which is designed to operate upon installation without commissioning. The system contains a photo sensor that can be used to account for available daylight. It also offers 100 lamp/ballast configurations. The housing is 2 1/4 inches deep, with a curved or square-edged profile, and three optics choices allow for different ratios of uplight to downlight distribution.

Ivalo strives to combine a high-design sensibility with advanced manufacturing processes. The Aliante exterior sconce is the latest in the family designed by Italian artist-critic Stefano Casciani. Its 5-foot-tall form is constructed of .060-inch-thick steel using automotive stamping techniques; the shell is available in silver, bronze, or custom powdercoat colors. Hinges with captured screws hold the fixture to the wallplate, allowing for easy access. A polycarbonate shield protects the T5 high-output lamp.

An increasingly relevant technology in today's world of "more and better" control in the built environment, digital addressable lighting interface (DALI) systems allow dimming and control of fluorescent fixtures down to the individual ballast level. Erco has incorporated DALI-compatibility into its Varychrome Focalflood, which has electronic control gear integrated within the luminaire housing, enabling color-mixing of T16 fluorescents. Suitable for both indoor and outdoor applications, the luminaire is dust- and water-jet-proof, with an IP65 rating.

The M100 series can be recessed, semirecessed, surface-mounted, or suspended. More than 10 shielding options are available, as well as various combinations of fluorescents, MR16s, and track modules. Recently added to the series is the super-recessed option (shown), which has a 6-inch-deep, 4-inch-wide form. All M100 luminaires are available with staggered lamps in order to conceal socket shadow.

FOR MORE INFORMATION ON LIGHTING, CIRCLE 121 ON PAGE 73.
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This white elastomeric roofing product can be sprayed onto roof surfaces that are clean and in good repair, though some surfaces may require an undercoat for proper adhering capabilities. The coating has reflective properties that contribute to its rating as Energy Star compliant, its value for LEED points for cool roof compliance, and as a registered product with the Cool Roof Rating Council. The coating reflects up to 88 percent of heat from direct sunlight as well as reflecting UV rays, which over time can be harmful to the integrity of many roofing systems. An added benefit to its reflective properties, 280 DC lowers roof and interior temperatures, thus reducing heating and cooling costs, and prolonging roof life. Though similar in appearance to its sister product 280 Reflective Roof Coating (shown above), 280 DC was released last fall, and features improved adherence in accordance with stringent Miami Dade County ratings for hurricane-force winds.

Departing from customary, single-ply composition, Versico’s VersiWeld is a fully adhered, mechanically attached, three-ply thermoplastic polyolefin (TPO) roofing system. The three layers include a polymer base coat, followed by a polyester-reinforced scrim, and finally a thick and smooth layer of TPO. The surface resists the collection of dirt particles and other dulling residues and is also puncture-resistant, which permits foot traffic without the risk of creating leaks or other breaches.

To prevent leaks at the bottom corners of windows, Vycomers has been added to Grace Construction Products’ line of flashing offerings. Designed to be used in conjunction with Vycor flashing, Vycomers employs the same cross laminated, high density, polyethylene technology, backed with a pressure sensitive rubberized asphalt adhesive similar to other Vycor products. Designed to permit maximum versatility, Vycomers can be fit to windows of any size or shape.

Certainteed’s long-established Landmark series of asphalt roof shingles has been updated to include a new color palette. Still centered around earth-toned colors, the new options offer a greater contrast between hues so that designers can create a more dynamic roof surface. Informed by housing trends across the country, the palette is tailored to specific regions. The colors are available in the five separate lines of the Landmark Series: Landmark, Landmark Plus, Landmark Premium, Landmark Special, and Landmark TL—the latter featuring a three-layered construction.

This APP rubberized asphalt waterproofing membrane with a fiber-reinforced polyester mat can be exposed to the elements for up to 36 months without leaking or degradation. Ideal for areas in which tile roofs are applied over underlayments but cannot be installed immediately, the product is also effective in mortar-set or mechanically fastened roofing applications. Providing thermal stability up to 260 degrees, the underlayment can also be used as skylight flashing and around pipes.
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Pop is a form-pressed plywood surfacing material for use on ceilings, walls, and some large-scale furniture systems. Square panels with a convex circle motif are available in two sizes, 7.8 inches square and 15.75 inches square, and a number of finishes—including birch, cherry, hazelnut, and cork; other materials can be special-ordered. Flat panels are also available and all come laminated in a transparent matte film to facilitate cleaning and prevent wear.

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**FILM**

**Regular or Super** | A film by Joseph Hillel and Patrick Demers | First Run Icarus Film

Those unaware that Mies van der Rohe liked to watch boxing on television, or that taxi drivers in Chicago once knew his Lakeshore Drive apartments as “the glass menagerie,” will be impressed by a new documentary about the architect’s six-decade-long career. In *Regular or Super*, directors Joseph Hillel and Patrick Demers focus on the everyday lives of Mies’s iconic buildings with a visual caress usually reserved for the body: a time-lapse sequence of IIT’s Crown Hall as night falls; the rapid movement of clouds past an upper corner of the stealth Seagram Building. The film takes its title and easy sensibility from a Mies-designed gas station in Nun’s Island, Montreal, from 1967, where a series of interviews with a mechanic, clerks, and patrons kick off the hour-long tribute. Information such as his tenures directing the Bauhaus and IIT are offered as captions accompanying footage of the institutes’ buildings. Rem Koolhaas praises the National Gallery in Berlin for being “entirely unspectacular,” and cites its appealing modesty and flexibility. *Regular or Super* ultimately reveals the often workaday nature of artistry, where the really significant solutions come from addressing a problem again and again, not simply dreaming something up in your head. **Julie Sinclair Eakin**

**EXHIBITION**

**Home Stories: An Inside Look at Single-Family Houses in Austria** | Austrian Cultural Forum | New York City | Through February 26

For those who wouldn’t think to look for cutting-edge houses in a land where dirndls and lederhosen remain beloved attire, **Home Stories**, currently on view at the Austrian Cultural Forum in New York City, should be an eye-opener. To judge from the 28 residences presented, the hills are alive with the spirit of Adolf Loos. A new breed of adventurous Austrians are seeking forward-looking architects to design houses tailored to their contemporary lives. The work emerging from these commissions is remarkable for its individuality, environmental concern, and relatively modest proportions—averaging some 2,000 square feet. Equally striking is the intrepid exploration of novel construction materials and techniques. An idealized single-gable house, fronting an alpine village street, is clad in chrome-plated steel. Another minimalist take on the farmhouse is sheathed in black resin. One modular house, built on leased land, has been designed for eventual disassembly. While unconventional, these houses remain polite to their traditional neighbors and often stunning surroundings.

Ulrike Haele, the show’s curator from the dynamic Architecture Center in Vienna, commissioned informal, telling portraits of the owners to be exhibited with photographs and plans of their houses. It’s a fitting curatorial decision, as the occupants are no doubt as exceptional as the homes they built. **Marisa Bartolucci**

**BOOK**

**Rubble: Unearthing the History of Demolition** | Jeff Byles | Harmony Books

The term “house wrecker” was first applied to the men who demolished buildings for a living. In the 1930s, their union boasted 2,500 members in New York State alone. Before explosives became standard, “barmen” used tapered steel shafts to pry apart building materials, with their bodies as leverage against tons of recalcitrant bricks and mortar. As critic Mike Davis wrote in response to the new book Rubble, “Urban design, it turns out, is as much about subtraction as addition.” Author Jeff Byles cites the language, tools, methods (some buildings require rebuilding before they can fall efficiently), and ethics of architectural demolition with the no-holds-barred details befitting a celebrity biography. The Pruitt-Igoe homes, the Hacienda casino in Las Vegas, and Penn Station are the inanimate protagonists of this spectacular story, while Alfred Nobel, who patented dynamite in 1862 (and later established the Peace Prize as a bid to counter his resultant reputation), and the evangelical Loiseaux family, of Controlled Demolition, the current leading practitioner, are the charismatic flesh-and-blood stars in whose hands the structures fell from grace (or ignominy). The nature of our craving for destruction takes center stage in this discussion, with the Twin Towers providing the most enigmatic example of the forces that continually reshape our communities. **Julie Sinclair Eakin**
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Drawings from the 1960s of futuristic inventions by Ohio industrial designer R.G. Martelet. ARCHITECT: GALLERY OF ARCHITECTURAL ART archigallery.com Through March 25

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Illustrates the changing face of urban public spaces with 20 projects. CHICAGO ARCHITECTURE FOUNDATION architecture.org Through May 7

CHICAGO
Jan Theun van Rees
The artist's photographs blur the lines between public and private spaces in Wright's Unity Temple. CHICAGO CULTURAL CENTER egov.cityofchicago.org Through March 19

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THE PROFESSION MUST HARNESS ITS TALENTS TO ADDRESS HOUSING PROBLEMS OF AN UNPRECEDENTED SCALE. BY THOMAS FISHER

Richard Farson, president of the Western Behavioral Sciences Institute and a former public member of the AIA's board of directors, observed in 2003 that the architectural profession is ill prepared to respond to the hundreds of millions of poorly housed people in the world. Farson called on architects to become publicly funded "metadesigners," guiding a range of other disciplines to help address the growing problem of inadequate shelter.

Farson's ideas draw attention to a responsibility—and huge missed opportunity—for the profession. As it stands, the architect/client relationship, to cite an example, parallels the doctor/patient relationship in medicine, in which individual needs are addressed one at a time. But medicine has also evolved another model—public health—to address the needs of groups of people.

Architects have long had a relationship to public health: witness Frederick Law Olmsted's service as head of the U.S. Sanitary Commission during the Civil War. But rarely have architects looked to public health as a model for practice. Most of us work in small businesses, as do physicians, rather than in industry and government, like the public health community. And, even though health, safety, and welfare stand as central justifications for our licensure, we have not seen global health as central to our profession and have generally not partnered with the institutions and agencies whose charge it is to help people in need of shelter worldwide.

It took public health a long time to evolve such organizations. Its roots in America go back to 1798, when the Federal government set up the Marine Hospital Service to care for American seamen and traders coming in contact with exotic diseases. Over a century later, this body became the National Institutes of Health. Taking on threats too broad in scope for the private sector to handle, public health became a field largely supported by public and nonprofit funding.

Architects, of course, do a great deal of public and nonprofit work, but that mostly consists of individual buildings or projects, far smaller in scale than the problems that public health physicians pursue. As a result, architects often lack a clear way of addressing the large-scale threats to public health that we've seen lately, such as the flooding of New Orleans, the devastation along the coastlines of the Gulf of Mexico and the Indian Ocean, and the leveling of millions of homes in northern Pakistan.

In all of those cases, poor decisions about where to build and how to build contributed to huge losses of life as well as property. And we are very likely to see more of this. As Oxford University Professor Norman Myers predicts, in the coming decades "there could be as many as 200 million people overtaken by disruptions of monsoon systems and other rainfall regimes, by droughts of unprecedented severity and duration, and by the rise of sea levels and coastal flooding."

This is a public health crisis with enormous architectural implications. Where will these people live? How should we rebuild? Who will lead this effort? Architects have much to offer in answering those questions, but we cannot address them one family at a time. We need a public-health version of our profession that should include accredited programs to prepare students for such work, funded research to develop new forms of housing and infrastructure, and committed practitioners ready to work in the nonprofit, corporate, and governmental sectors focused on shelter and habitat.

The market exists: The United Nations estimates that over one billion people live without basic shelter and services in slums and squatter settlements. So does the funding: The World Bank and World Health Organization spend billions of dollars annually on slum improvement worldwide. Largely missing are the architects able to help find creative design solutions and ensure efficient delivery of human habitation, those prepared to work as Farson's "metadesigners," assembling and coordinating the complex teams necessary to address the enormity of the problem. It's a calling we can no longer ignore.

A version of this text first appeared in the January - February 2006 issue of Architecture Minnesota.
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