

METROPOLIS

CASTING CALL

An Architectural Talent Scout Goes on the Hunt for Buildings with Star Power

By Brian Libby
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From Norman Bates to the Brady Bunch, the homes of our Hollywood heroes and villains say a lot about them-and about us. Just ask Sarah Burton. A ten-year veteran of location scouting for movies and television, Burton is a name in the credits we ignore while exiting the theater, or waddling to the fridge for another beer. But when Hollywood goes on location, scouts like Burton take the first steps in a long journey from screenplay to celluloid. Scouts don't directly determine film style, but as Burton attests, "We're acting as the cinematographer, the director...We're the eyes of every department before they get there."

Take Burton's latest assignment: MGM has sent her to Portland in search of a Modernist house to use in *Bandits*, a film by Oscar winner Barry Levinson with Bruce Willis and Billy Bob Thornton. Hollywood likes Modernism for its simple, clean lines (easily identified in today's split-second shots) and because it evokes both the future and the past. But this particular style is uncommon in Portland, which was probably chosen with other criteria in mind (it's cheap, beautiful and a two-hour flight from L.A.).

Armed with the scout's trusty tools—a camera and cell phone—Burton finally tracks down one sleek gem off fashionable Twenty Third Avenue, but the kitchen is too small. An award-winning house across town looks perfect, but the homeowner won't cooperate. Desperate, Burton sends MGM some photos of a wood-festooned, Northwest-style home—and to her surprise, the filmmakers agree to use it in the film. With one click of her shutter, Burton has changed the face of a multi-million-dollar movie.

According to Beth Milnick, a former model and documentary filmmaker who's scouted for David Fincher and Oliver Stone, gaps between script and reality are usually no accident. These days most families choose bland homes in blander suburbs, but onscreen it's still gorgeous old Victorians with porches and picket

fences. "We're selling a dream," exclaims Milnick. "People get enough reality in their daily lives." And finding pretty places isn't always enough. "Things that are beautiful aren't necessarily filmable," says Milnick. "There's an elegant simplicity in most great locations." Scouting for *Bandits*, Burton found an otherwise suitable house that was nixed because of its purple kitchen cabinets. "In person you could see how it tied with the rest of the house," she says, "but on film it never would have worked."

Conversely, everyday locales can gain new contexts in the right project. When the Ethan Hawke sci-fi opus *Gattaca* called for a retro rendering of the future, Burton helped writer-director Andrew Niccol uncover a variety of mid-20th Century buildings before his script was even finished. "Andrew really inspired me to look for architecture that stands out in strange ways," she recalls. (Modernism has since turned up everywhere in movies and TV.) For *Anywhere But Here*, director Wayne Wang envisioned Susan Sarandon and Natalie Portman's Southern California pilgrimage as a trip down the Yellow Brick Road, and sent Burton to find shimmering Century City skyscrapers and green Beverly Hills lawns that evoked Los Angeles as an Emerald City.

Soon an army of teamsters and filmmakers will hit town, but Burton will be gone before a single daisy gets trampled or donut consumed.

"IF YOU BUILD IT..."

By Brian Libby
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On a crisp blue-sky morning at the Nike World Campus in Beaverton, Oregon, anticipation is palpable. Cycling champion Lance Armstrong is coming to dedicate a new athletic center bearing his name. While organizers busily erect bleachers and a ceremonial ribbon for Lance to scissor through, architect Bob Thompson takes a last empty stroll through the latest edifice that his firm, Thompson Vaivoda & Associates, has designed for America's athletics juggernaut.

From a walkway paved with legendary cyclists' names-Hinault, Lemond, Indurain-Thompson proudly strolls past the Armstrong Building's new amenities: a rock climbing wall, a sea of exercise bikes, an Olympic-sized pool, a giant aerobics room, and just outside a beach volleyball arena. That's right, Nike has built a 65,000-square foot rec room. And the company's deluxe employee accommodations already include the state's largest day care center and six restaurants. "There's no corporation in America that gives back to its employees like Nike," says Thompson.

You can't blame Thompson for beaming over these 12 billion square feet of granite, glass, and landscaping comprising Nike's stunning combination of business park and athletics theme ride. But there's also a hint of defensiveness in his voice. No, it's not because of Nike's oft-maligned Indonesian labor conditions. Thompson is mad because this magnificent Utopian society he helped create—winner of 14 design awards and the envy of corporations worldwide—is being upstaged by an old hospital across town, where a renovation by Adidas is creating a new kind of corporate campus.

From Baltimore's Camden Yards, where baseball's vintage-ballpark renaissance began, to LA's Staples Center, where basketball's most privileged franchise reclaimed its throne, Sports 101 says you can't win without fancy digs. Perhaps it's no wonder this same obsession besets the firms outfitting our athletes, whose industry is competitive as any game on the hardwood or gridiron. And with the two biggest competitors occupying very different headquarters within one metropolitan area, Portland has become a controlled experiment for erecting the corporate field of dreams.

Since its inception in the early 1970s and the subsequent jogging-fitness revolution overseen from its headquarters (which has grown to 5,000 employees in twenty buildings), Nike has been metropolitan Portland's most recognizable corporation, even as the area has become a high-tech hotbed. But since Adidas moved its American headquarters here from New Jersey in 1993, local leaders have embraced the German-based company like a member of the family—and having government on your side never hurts business.

"Both companies have shown a lot of community spirit and willingness to be good corporate citizens," says Charlie Hales, a member of Portland's City Council. "But I think the real distinction is where these corporations choose to live. That's about as sharp a contrast as you can see."

For the past eight years, Adidas has been headquartered, like Nike, in Beaverton, a suburban enclave of chain restaurants and strip malls located about fifteen to sixty-minutes' drive from downtown, depending on traffic. But unlike Nike, Adidas was unhappy with its outer locale. "Demographically we're a young work force," says Adidas' Owen Clemens. "Our lifestyles revolve around downtown more than the suburbs, and being in Beaverton made for some nasty commutes." To win the battle for top talent, the firm decided to build an urban dream house.

Given the relative scarcity of large-scale urban property, Adidas' downtown dreams initially seemed unattainable. But just as local executives began to settle for moving even further out, word came that the Bess Kaiser Hospital in North Portland was vacating its premises. Working with local neighborhood representatives, Kaiser sought a tenant who would embrace the surrounding community, which has recently emerged from years of middle-class migration and economic despair to enjoy newfound prosperity.

"We wanted a visionary willing to make a bold statement about their commitment to urban life," says developer Jim Winkler. "Adidas got that right away."

First came the task of turning a hospital built in the late 1950s into a state-of-the-art office complex. "There was a lot of stuff that had to come out," recalls Clemens. The hospital had 490 separate toilets, most of which were pulled out, along with surrounding doors and sinks. The hospital was also full of hazardous materials-asbestos, chemicals, even a nuclear radiation lab. Worse, in some cases as-built plans did not match what was actually constructed. And the building was glaringly short on windows, as most operating rooms require mutable artificial light. "Recycling an existing building is always an adventure," says BOORA Architects' Eric Cugnart, the lead designer on the project. "You never know exactly what you'll get."

Adidas called for a new site plan that would expand what was then 215,000 square feet of space by claiming a parking lot across the street, thereby adding another 150,000 square feet. Now stretching from the existing hospital to include a new building, Kaiser believed it was, in Cugnart's words, "important that we use the potential of the site as much as possible and try not to build something completely foreign [across the street]. The challenge was to give an impression of continuity of space."

With a mid-century modernist building forming the core of their complex, the architects sought a sense of design continuity without actually duplicating the style. "It's more like the repeating of a rhythm," says Winkler. BOORA devised a new outer surface of both the new and old buildings, teeming not only with windows, but with vibrant color (particularly the red, yellow, blue and white of the Olympic rings), something missing in most mild-mannered corporate offices. And as Clemens recalls, "We took out any wall we could take out. People are forced to talk to each other and communicate."

This idea continues with a central plaza that regulates flow in and out of surrounding office buildings and parking structures and toward common areas. Although smaller than its original design-neighbors wanted buildings closer together to minimize shadows and protect views of downtown-the plaza allows the public to cross Adidas' complex for easier access to mass transit, including a soon-to-be-completed light-rail line. The company also donated another adjacent parking lot for a city park, and will make the campus' athletic fields available to the community. Naturally this comes in sharp contrast to most corporate campuses, including Nike, which are not very inviting to unannounced visitors.

"The Adidas campus says, 'This is an urban district. You're welcome here,'" notes Hales. "What does the Nike Campus say to you when you penetrate the berm in your automobile and approach the security gate? 'All you folks keep out, but buy shoes.'"

Truth be told, Nike still slam dunks over Adidas when it comes to the sheer size and impressiveness of its buildings. After all, the new Adidas headquarters will occupy only a fraction of Nike's square footage. And while its colorful facade and neighborhood-friendly spaces earn high marks, Nike's buildings are, in the words of last year's AIA/Portland Design Awards jury, "a virtuoso performance in the classical language of modernism." But in that praise, there's an ever-so-slight hint that the Nike Campus is champion of a bygone era.

"It's great architecture, but it's terrible place making," says Hales. "Nike's corporate campus is the ultimate well-designed, well-executed, attractive suburban pod. It's offices surrounded by parking lots inside a berm across the street from a trailer park and down the street from strip malls."

Of course this portrayal isn't completely fair to Nike. Thompson likens the headquarters to a college campus. Compared to inner Portland, the tranquillity one feels here-with tall trees and even a lake-is indeed like going from, say, Midtown Manhattan to the grounds of Columbia University. Moreover, Nike's sheer size would make staging a move downtown quite difficult-Thompson says it'd take two 50-story office buildings-and you'd lose all that beautiful surrounding greenspace.

That said, Portland's corporate campus battle indicates our renewed preference for cities over suburbs. "When Nike built their Beaverton campus, most of their current or potential workforce was out in the suburbs," says Patrick Tillett, Director of Urban Planning for Portland's Zimmer Gunsul Frasca Partnership. "Adidas is coming into the city at a time when the workforce increasingly prefers inner city neighborhoods. Oddly enough, it's a similar logic which has driven them."

So when Nike builds an athletic center for its employees, it's not just corporate benevolence, but a matter of keeping an urban-inclined workforce happy in the suburbs. And for Adidas, doing business a stone's throw from downtown is like dressing up for a night out: It's all about attracting the right people.

"I speculate that Adidas looked at the Nike campus and said, 'We could never compete with that. Let's go to the other extreme, and focus on cultivating inner-city life'," remarks Tillett. "But if Adidas had been the first to town back in the seventies, I don't doubt they would have been stuck in the 'burbs to stay."

In other words, if you can't be Shaquille O'Neal, go for Kobe Bryant. In sports and business, size indeed matters. But often the best are quick on their feet.

MAKING HAY

Straw-bale insulation lines the houses of Inner Mongolia--and the pockets of corporate America.

By Brian Libby
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If George W. Bush is viewed by some as the Big Bad Wolf of contemporary environmentalism, Kelly Lerner is Little Red Riding Hood. This past summer, while Bush was further distancing America from the Kyoto Protocol (the international agreement to reduce greenhouse gases), the Berkeley architect was building energy-efficient straw-bale homes for the poor in a remote area of China's Inner Mongolia region. And in a surprising Kyoto subplot, Lerner's work is funded in part by the very corporations Bush says he's trying to protect.

Lerner's efforts are sorely needed in Inner Mongolia. Left behind in urban China's economic growth, the region's high desert steppe is eroding from high water use and overgrazing. Thousands of rural herders who have lost their way of life suddenly need places to live after moving to the cities. Working with the Chinese government and the charitable organization Adventist Development and Relief Agency (ADRA), Lerner has helped build more than 250 houses here in the past four years.

The energy-efficient straw-bale insulation significantly reduces dependence on coal heating. With temperatures dropping to as low as --40 degrees Fahrenheit, that means big savings in both money and carbon-dioxide emissions, which in turn has attracted interest from American corporations.

Although the United States hasn't signed the accord, its companies are paying attention to Kyoto's Clean Development Mechanism, established in 1997. In lieu of reducing their own emissions, corporations from industrialized nations can invest in charitable projects like Lerner's that reduce carbon dioxide in developing countries. It's like paying a sibling to do your chores. The actual investment is made through charities like ADRA; this year corporate America has already bankrolled about 30 to 40 percent of the cost of these straw-bale homes. "Most companies believe signing onto Kyoto is a question of when, not if," says Sean Clark of the climate change risk-management firm Trexler and Associates. "The more experience [reducing CO₂] they can get now while they're unregulated, the better they'll be able to do it efficiently when it counts."

This 1998 school (above), in the Hebei Province, was the first straw-insulated building in China. The exterior is plastered and tiled, making it indistinguishable from typical area buildings.

Just as in America, Lerner says that Chinese and Mongolian clients were initially perplexed by straw-bale construction, but its superiority soon won them over. "Building with natural materials isn't anything new," she says. "The Chinese already have it down when it comes to permaculture principles: integrating your house, garden, and animals--and making them all fit together nicely. Straw-bale construction is just another step."

What's more, Lerner believes the lesson is a two-way street. "There's a lot more smiling, relaxed people here with a lot less stuff," she says. "It makes me question the things that supposedly make us happy in the U.S. We need to think not just about the materials we're using but about building only what we need."

STANDING STRONG

Architect Carol Ross Barney brings sensitivity and security to Oklahoma City's new federal building.

By Brian Libby
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When Chicago architect Carol Ross Barney was selected to design a new federal campus to replace Oklahoma City's terrorist-destroyed Alfred P. Murrah Federal Building, she knew the project would reflect both a culture of loss and the hope of renewal. What Ross Barney didn't know then, of course, was that the terrorist attacks on September 11 would cause her building to be judged in an entirely different light from the one in which it was designed.

That said, it's a task for which Ross Barney seemingly was born. Her firm, Ross Barney + Jankowski Architects, is devoted largely to public buildings, and her methods are well suited to the sensitive site. "In Oklahoma City you need a building that's strong but also welcoming," says Chicago Tribune architecture critic Blair Kamin. "She's the right person for the job. She's a strong designer with strong ideas, but she doesn't willfully force them onto her clients, and that's the key."

Situated across the street from the Murrah site, Ross Barney's new U.S. Federal Campus in Oklahoma City uses a striking colonnade to separate an elliptical glass-enclosed courtyard from a nearby street, communicating openness while maintaining both physical and emotional security. There's also an adjacent greenspace, which emphasizes the area as a gathering place: a direct challenge to the scare-and-scatter tactics of terrorism. Recently she spoke with Metropolis

contributor Brian Libby about the challenges of securing both safety and good design.

Your firm is devoted almost exclusively to public buildings. What is the special allure they hold for you?

I'm definitely a child of the sixties. There was this belief then that architecture and city planning could have an effect on how society works. I think that theme stayed with me. The other reason is much more selfish: when I work in the public realm, I'm a little bolder. As a member of the community, I feel it's my responsibility to make it the space it needs to be, because it's my building too.

What do you feel is the biggest challenge in designing public buildings?

Architects, and most professionals, have problems telling professional services from customer services. It's easy to think that if your customer feels happy, then that's a good building. But that's not true. Good architecture doesn't have any particular correlation to administrative comfort or ease. I think it's my job to see that the man on the street is also getting a good building.

How has the federal campus in Oklahoma affected your approach to design?

Oklahoma was kind of a watershed because it was the first time we'd ever worked outside of Illinois. I've always worked from a certain knowledge base about the local history and culture here, because it's my home. So I felt absolutely compelled to do a lot of research about Oklahoma. It's changed my design method, because we've become tremendously dependent on research. We always want to understand what makes a place what it is.

Your firm's buildings are known for reflecting the culture of their inhabitants and the surrounding community. How did the Oklahoma City project incorporate the culture of loss and the desire for emotional security while still reflecting the area's more long-standing history and geography?

They all affected what went on in the design. For example, we've taken the color of the concrete and made it a subtle reflection of the really red dirt that's there. Our major space was somewhat inspired by the stomp grounds that the Five Civilized Tribes built after they were transported to Oklahoma: it curves inward for a kind of sacred intimacy.

And what about the people affected by the bombing?

All the time we've been working on it, right up through today, we've encountered this community of people who are just tremendously impacted by anything that goes on that site. In Oklahoma City everybody knows somebody who was involved. We tried to get their opinions, which were very helpful. We're guessing about 10 to 20 percent of the people who move in will be Murrah survivors.

What did they say they wanted?

Obviously security was very important. For example, they wanted no law-enforcement tenants, so they'd be able to get help in an emergency without the rescue services being destroyed. And they wanted the building to be low-rise, so it's four stories versus the ten or eleven in the original Murrah. But Ed Feiner at the General Services Administration [GSA] kept pushing us not to get overwhelmed by their security guidelines. He wanted the design to be not just about this past incident but about the new building's purpose and function. The answer is holistic. It's a building that will do its job. Part of that job is being secure--but that's not the only part.

How has September 11 changed your experience with the Oklahoma City building?

Since September 11, I have been called many, many times. I can't think of any newspaper that hasn't called me. Bryant Gumbel interviewed me, and he was very aggressive. He wanted to know, "Will people be able to blow up this building in the future?" A lot of people look at Oklahoma City as a kind of premonition, as if it's a road map for the future of New York. With everybody talking about security, I've been able to go back and see if we passed the test.

Do you believe your building passed?

Yes. With the Oklahoma building we've looked at the things that we can do technologically to prevent the Murrah bombing, such as thick concrete blast walls in the entry, which double as a dramatic three-story entry. If the same event happened at our new building, it wouldn't have the same disastrous results. But it's not the building that's the problem. This is about bad people doing bad things. You can only design so much protection into a building.

What should be built at the World Trade Center site?

I don't think it should be only a memorial. We're talking about a city that has a much bigger history than one day, even though it was an unbelievable one. It's some of the most valuable real estate in the world, with an economic role and function that's as much a part of our society as anything else.

What advice can you pass on to the people who ultimately design and build something there?

Time is really important. The GSA doesn't move very fast, which gave both us and the people [of Oklahoma City] time to think about what was right. When we started nobody wanted child care there, because of the memory of what had happened. But when we were a few months into the design, people started to

imagine themselves actually working in the building and the types of services needed to do their jobs, and they realized they wanted child care. Time is the only thing that allows you to arrive at decisions like that.

Do you see the pressure put on architects today regarding security as an opportunity or an imposition?

I think good buildings come from complex questions. The idea of wanting physical security isn't an imposition in any way. On the other hand, you have to make sure you're asking the right questions. You can't make security the only concern. That's the risk you run after something like September 11. But I don't think that's going to happen. I think security will be mixed in with quality-of-life issues.

Do you think there's a cultural shift going on right now that architecture is part of? You can never fully tell a watershed moment until it's passed, but I think a lot of interesting issues are being discussed now that have been put aside for a long time, like the future of very tall buildings. Are they trophies, or are they really useful to our economy? Or the idea of building codes and safety and what we can hope to achieve. In a way the World Trade Center performed exactly the way the profession designed it to. It was supposed to last an hour during that kind of stress, and it did. Something like eight out of nine people did get out of the building. At the same time, this causes us to ask ourselves, Is that good enough? Can Americans expect a no-risk society? We have to look at our system of values as much as at design itself.

LIGHT FANTASTIC

BOORA Architects proves that green strategies like daylighting can help kids learn—while staying within educators' budgets.

By Brian Libby

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For the past several years Linda Mauldin has taught English at Clackamas High School in suburban Portland, Oregon, inside a windowless room. That fate is not uncommon in American schools, especially since security has become a concern in the wake of Columbine and other shootings—one of which, Kip Kinkel's 1998 rampage at Thurston High School in Springfield, Oregon, occurred less than two hours' drive from here. But when Mauldin and the rest of Clackamas High relocated last spring to a new facility bathed in natural light, the longtime teacher noticed a change in her students. "I don't get sleepy behavior here," she says. "Having all this light makes a huge difference to us all." Each class period Mauldin instructs students to drop their pencils and stare out the window, which

overlooks a wetlands preserve adjacent to the school. "It helps them get centered," she explains.

Clackamas High is just one of three sustainably designed schools that Portland's BOORA Architects completed in 2002. All three are located in rural or suburban areas perennially strapped for funding. The Dalles Middle School in The Dalles, Oregon, is about 80 miles east of Portland in the picturesque Columbia River Gorge. Ash Creek Intermediate School straddles the small towns of Independence and Monmouth, in Oregon's fertile Willamette Valley to the south. It may come as a surprise that these communities are representing state-of-the-art green building, which is perceived to carry a larger up-front price tag. But Clackamas, The Dalles, and Ash Creek were each constructed at costs lower than the national average for school buildings.

School district officials from The Dalles first approached BOORA in 1982. But funding could not be put into place in this town of 13,000, where logging and other blue-collar jobs had been in decline and budgets were accordingly tight. In 1996, when the town got serious about building a school again, officials had a decision to make. Citizens wanted to build on the site of the existing middle school, which had long been victim to landslides due to a large amount of groundwater. To address the groundwater problem, the city built a dewatering well that would collect about 20,000 gallons of water, thereby stabilizing the site. But the damage to both the original school on the site, which finally had to be condemned and torn down in 2000 after years of cumulative structural damage, as well as the town's psyche, had already been done. For more than two years students were housed in portable trailers while the community agonized over whether to try building again on the old site or on the outskirts of town, the latter of which would mean children could no longer walk to and from school.

With BOORA's help, townspeople finally came to agree that just as a green strategy had stabilized the site, it also provide a quality of educational experience that never existed before. "I remember giving a presentation to a neighborhood group of about a hundred and fifty," recalls architect Heinz Rudolf, the BOORA principal behind all three school projects. "All I talked about for an hour and a half was sustainability. They were just eating it up. There was no resistance."

"I think when they decided that this was the site they were going to build on, they knew it was going to have to be a green building or they were going to have more difficulties with the landsliding," says Jan Anderson, principal of The Dalles Middle School. "It was as simple as that."

BOORA began by harnessing the same groundwater that had long hampered the site. Using groundwater to heat and cool the building with a heat exchanger, the strategy would come to save 51 percent on energy bills. Groundwater would additionally be used to irrigate grounds and playing fields.

Continuing the sustainability strategy, BOORA decided to harness the constant wind from the Columbia River Gorge (one of the nation's most popular windsurfing locales) for natural climate control. Ventilators circulate the cool river air throughout the building, eliminating the need for air-conditioning. And through proper orientation and window placement, natural daylighting would illuminate this nearly 100,000-square-foot space, with scarcely any need for light fixtures. All told, the building would save approximately 51 percent in operating costs for its entire life span.

Although bugs in the system are still being worked out, particularly with automatic lighting sensors, overall the experience of attending and teaching school at The Dalles is a much more pleasant one, reflected even in the behavior of its teenage occupants. "It's amazing how well behaved they are in here," librarian Pat Yecny says. "Of course kids are always going to be kids, but I think there's a calming atmosphere here." Indeed Anderson says early statistics show that detentions and vice-principal referrals are significantly down since the move to the new school.

According to the Heschong Mahone Group, a nonprofit organization that promotes building efficiency, a national study of elementary school students found that test scores rose by more than 20 percent in significantly daylit buildings. The number of sick days also tends to go down when natural light is combined with TKTK. "I haven't been sick at all this year, and by this time last year I was sick two or three times," confirms Ash Creek Intermediate teacher Sandy Martin. "And it's the same way with my students."

"It's extremely well-documented research," the Rocky Mountain Institute's Huston Eubank says of the HMG Group study. "The initial results were challenged*so HMG actually was funded to go back and review all their procedures, and when [the report] came out again last summer it reaffirmed it."

Most buildings in temperate areas spend more on cooling than heating, so daylighting principles are often based on the notion of bringing in light but not heat. All three of BOORA's Oregon schools feature significant use of "light shelves", a primary window topped with a flat shelf extending out of the building, and another window above that. This allows light not only to enter the room (through specially filtered glass that reduces glare) but also to bounce off the ceiling and into the back of the room, where it's most needed. BOORA has also fashioned each building with skylights, some extending through multiple floors.

At Ash Creek Intermediate, a 59,000-square-foot school housing fifth and sixth graders, the combination of techniques has created light that goes beyond usefulness: it is stunningly pretty. Quality of light is usually analyzed in hard numbers, but on a sunny winter Thursday Ash Creek seems the brick-and-mortar answer to Tuscany. "Look at this," says school district superintendent Forrest

Bell, flipping through a copy of The Junior Science Book of Turtles in the library, where skylights provide the primary illumination. "This is beautiful light."

What's more, natural light helps provide the kind of added security schools need today. Walking the halls at Ash Creek, Bell can stop and look through a floor-to-ceiling window next to a classroom door, out the far window of the classroom, and onto the grounds of the school. "Safety through passive supervision has been well addressed here," he says. "It's an educator's dream." (All three buildings also come equipped with one-touch central lockdown technology and other modern security features.)

Like The Dalles and Clackamas, Ash Creek's sustainable design isn't just about daylighting and natural ventilation. A host of recyclable versions of building products such as concrete, metal, glass, carpet, fabric, wood, and acoustic tiles were utilized, as well as low-maintenance and long-life building products such as low-emission paints, ceramic tile, and linoleum (not the synthetic vinyl stuff in your mom's kitchen, but the natural kind made from linseed oil, which has been around since Victorian times). Even more important, each of the three buildings underwent significant commissioning to ensure optimum knowledge and performance of ventilation and mechanical systems, verifying that it was built the way it was intended to be. In other words, these schools are getting by only on what they need, something all too many buildings don't bother--or dare--to do.

"I believe in functionalism," Rudolf says. "You design a building according to analysis, and everything is in the right place. Then you don't need a big electrical system or a big mechanical system. You take advantage of all the things you can. If you ignore all these good things that nature provides automatically, then you have to overcome them."

With the rapid emergence of the U.S. Green Building Council's LEED program, it may be possible to find buildings that are greener than BOORA's three Oregon schools. (The Dalles is poised to earn a LEED Gold rating and Clackamas a Silver. Rudolf says Ash Creek would also earn a Silver rating had it applied for certification. But the architect argues that some of the buildings' green features aren't accounted for on the USGBC scorecard.) What's particularly noteworthy, however, is that all three were done on very limited budgets--about \$125 per square foot, which is about \$10 less than the national average.

"Anybody can build a building for \$300 or \$400 a square foot and say it has all these features and it does all these things," Rudolf says. "But we've made an effort toward sustainable solutions that minimize resources and do more with less."

"In the beginning Heinz said, 'This is the budget, and this is the number that we work to,'" Eubank remembers. "I've always thought it was pretty impressive. Most

people quibble about how much extra green is going to cost. Well, it doesn't cost extra. It's just how you approach the design."

With help from the Rocky Mountain Institute, BOORA's work also included a new means of billing that could catch on in green building nationwide. BOORA received what's called a performance-based fee, in which architects and engineers can earn a bonus if their buildings save energy above and beyond energy code stipulations. It's a win-win scenario, where both the architect and the owner are motivated to build as efficient a building as possible.

"You need to do something different to encourage the team to do something different," Eubank explains. "So you set up a structure that provides an incentive to the team if their building performs better than an average building. You get what you ask for."

As a result, some of the country's most cutting-edge sustainable schools have been developed in small Oregon towns where tilt-up, prefab concrete structures have sadly become the norm. "Our community gave us the money to buy a brand-new Chevy," Bell says, "and we got a Mercedes."

SKY LAB: Simulations at Seattle's Daylighting Lab teach designers just how green their buildings can be.

By Brian Libby
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It's a typically overcast morning in Seattle, but an architectural model of Bohlin Cywinski Jackson's new Ballard Branch Library is brimming with light. The model is being tested at the Daylighting Lab, a facility devoted to helping architects study the use of natural illumination to reduce a building's dependence on electric light. A group called BetterBricks (funded by the deep coffers of local electric utilities) operates both the Daylighting Lab and a sister lab in Portland in hopes of nurturing what's already a progressive regional green-building culture.

If, as Le Corbusier has said, forms are revealed in light, then this process has so far been more of an art than a science. Because it costs more to cool than to heat many commercial buildings, architects have focused mostly on keeping light out. But with green building occupying an ever larger segment of the building market--and studies showing that people are more productive in naturally lit spaces--more architects are turning to daylighting.

Joel Loveland, the Daylighting Lab's director, hoists the library model onto a heliodon, a flat plane that can be tilted in different directions to correspond with any time of day or year, allowing designers to study the effects of sun orientation, glare, and window placement on their building. (Ironically a large electric spotlight is used to simulate the sun.) Want to see the building in early January at noontime? How about mid-August at 8:30 a.m.? "It's easy to forget all the different geometries of the sun," Loveland says, adjusting the heliodon. Indeed to witness its actual effect on a piece of architecture, you'd have to stand outside for 365 days straight.

Both labs also feature an "artificial sky," a room lined with mirrors that simulates outdoor light but allows light levels to be kept stable so that changes to the model (and therefore the design) can be measured accurately. Although the artificial sky and the heliodon have both been used for study in university settings for many years, the Seattle and Portland labs are the first to actively reach out to the commercial building market. With green building rocketing into public consciousness during the last five years, however, the Daylighting Lab has been busy, consulting on as many as 150 projects per year. Recent clients include Seattle's new city hall and justice center, as well as Antoine Predock's Tacoma Art Museum.

The Portland lab, which opened late last fall, hopes to offset some of the workload. Moreover, because it's part of the University of Oregon's downtown branch, it draws the interest of old-school designers as well as die-hard greens. "A lot of architects are used to design ideas being proprietary, but we're getting beyond that," says Rob Curry of Yost Grube Hall Architecture, who was instrumental in bringing the lab to Portland. "The lab fosters a community where we can learn together."

A GLASS OF GREEN

For Oregon vintners Sokol Blosser, a sustainable cellar makes pinot noir taste better.

By Brian Libby
Metropolis
June 2003

For hundreds if not thousands of years, vintners have stored barrels underground in caves and cellars so their precious wine can age in ideally moderate temperatures. Here in Oregon's Willamette Valley, however, home to some of the most ac-claimed pinot noir this side of Burgundy, earthquakes make burrowing deep underground dangerous. Nevertheless, when it came time for Sokol Blosser winery to build a new cellar, owner Susan Sokol Blosser and head wine maker Russ Rosner decided that another tilt-up concrete building with massive heating-and-cooling systems was contrary to the spirit of their enterprise.

Working with Portland's SERA Architects, Sokol Blosser spearheaded the area's first sustainable wine cellar. Comprising three chambers--each holding French oak barrels--the cellar is nestled into a gently rolling hillside, laid in earth on the length of its exterior to keep a low profile in the picturesque landscape. Foot-thick walls of reinforced concrete help maintain the narrow temperature range (about 50 to 60 degrees) necessary for the notoriously vulnerable pinot noir grape. "In the old building it gets into the forties or even the thirties during the winter, and I'm fighting to keep it under eighty in the summer," Rosner says.

SERA also installed a natural ventilation system made of three 25-foot tubes that protrude to the exterior of the berm. The system saves the winery 43 percent on its energy bills by eliminating air-conditioning. And the benefits extend beyond utility bills: A/C dries the air, thereby evaporating precious vino and increasing its alcohol content--"not the kind of wine I want," Rosner quips.

Sokol Blosser's cellar is more expensive than a concrete building would have been, but as with wine, you get what you pay for. "It's a 200-year building," says SERA Architects' Logan Cravens. "It may not last as long as a natural cave, but it's pretty close." (By comparison, the average American building lasts 35 years.) Because the winery is a family-owned business, handing it down to the next generation is more important here than at a corporate winery. Plus, Rosner says, the cellar is a symbol of all-around sustainable values. Building green is no different from, say, minimizing pesticides sprayed onto the grapevines. "There are other ways to achieve the conditions we have in here," Rosner says, inspecting one of his prized barrels, "but this is best for the environment." And when you depend on the land for your living, the environment is what it's all about.

Safeway's Portland Store Redefines 'Green' Grocer

By Brian Libby
Metropolis
February 2004

Long before big-box retailers were common, Safeway was paving the way with its own cavernous, super-sized grocery stores, complete with sprawling parking

lots. Recently, though, the international chain has taken its first steps toward a more progressive urban future by building its first outlet in a mixed-use facility. The 47,000-square-foot store—located in downtown Portland, Oregon—has apartments located above it and a two-level parking lot below it. It is part of the town's larger Museum Place development, a sustainable-building project that is seeking Leadership in Energy and Environmental Design (LEED) certification for its socially responsible design and construction.

The pioneering Safeway store, which opened on Oct. 8, replaced a run-down, traditional outlet located across the street. “[The old Safeway] was an anachronism,” says Doug Oblatz, of Shiels Oblatz Johnsen, which is managing the Museum Place development's construction. “To have a one-story store just didn't make any sense. But Safeway recognized that. They were the ones who came to us and said, ‘We have a store downtown that does pretty well, but is outdated. We're interested in going to the next level.’ ”

“We wanted an urban store with a vibrant streetscape,” agrees Safeway public affairs director Bridget Flanagan, “a store that worked for the community.”

Aside from the rental units and townhouses built above it, the Museum Place Safeway is unusual in the amount of natural light it receives. Most grocery stores back their freezers, produce stands, and other large equipment against the sides of the building, and so make those walls solid and devoid of windows. The Museum Place Safeway, in contrast, has over 300 linear feet of windows, allowing pedestrians to peer into the store from three sides.

The outlet is unique in several other ways. All of its deliveries are made to an underground garage, with freight hoisted up by elevator. A mezzanine houses the bakery, butcher, and food preparation areas, freeing up floor space while allowing those employees to gaze out at the store as they work. And a 30-foot hood over the Chinese deli's cooking area rises through the building to vent out above the residential tower.

“It's a different configuration than any other store we've got,” explains Safeway's Nancy Harp, who helped design the store with GBD Architects of Portland. “We had to rethink every piece of the puzzle.”

The Museum Place Safeway earned LEED points in a variety of areas, the most important of which was a 17% reduction in energy use. High-tech monitors inside the store assure that refrigeration is never too high or low, making food safer while conserving energy; at the same time, a heat recovery system uses the electrical equipment to warm the building.

Although Safeway says its Museum Place store is not necessarily poised to become its new model, the chain—which has more than 1700 retail outlets—has also recently built similar mixed-use stores in San Francisco and Seattle.

In building Museum Place, “Everyone from the CEO on down was involved in the decision” to go green, Flanagan says. The choice meant initial added costs, but reduced operating expenses over the long haul—as well as kudos from local, sustainability-conscious civic leaders. “There were a lot of players and a lot to tie together,” Flanagan says of the project, “but this store is smarter than I’ll ever be.”

Greenguard: A Rating System for Indoor Air Quality

By Brian Libby
Metropolis
August 2004

As the ideas put forth by the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) rating system slowly gain mainstream acceptance, the organization is expanding its program to apply to other facets of architecture, including commercial interiors, operating systems, and core and shell projects. But private-sector organizations are also weighing in, creating their own rating systems for sustainable design. One such company is Greenguard, which tests products to ensure their chemical and particle emissions meet Greenguard’s proprietary indoor air-quality pollutant guidelines. Those products that pay the testing fee and pass muster earn the right to call themselves Greenguard-certified.

“Most manufacturers have a very rigid and stringent quality control process in place for things like ergonomics, abrasion, fire resistance, and how their products will hold up if you drop them,” says Greenguard spokesperson Henning Bloech. “But indoor air quality or chemicals that are evaporating from their products aren’t really a part of [their measurements].”

Because pollution levels can be up to 100 times higher indoors than out, increasing numbers of public- and private-sector employers are having their interior products tested, in order to improve workers’ well-being and reduce liability. Knowing an item is Greenguard-certified—and thus emits fewer toxins—is helpful to an architect or interior designer looking to specify healthier furnishings.

Launched in 2000 by the Atlanta-based, for-profit laboratory Air Quality Science (AQS), Greenguard is now a separate, not-for-profit organization. The company still conducts its tests exclusively at AQS, although Greenguard is in the process of documenting and publishing its testing methods, so that other labs might adopt them.

To develop the Greenguard standards, AQS looked to guidelines set by government and industrial bodies, including the State of Washington’s Indoor Air

Quality program; the U.S. Environmental Protection Agency's Office Furniture Specifications and National Ambient Air Quality Standard; and the U.S.'s Occupational Safety & Health Administration's Formaldehyde Rule.

To see if a product is worthy of Greenguard certification, AQS conducts a 96-hour test, during which products are placed in a sealed chamber through which purified air is poured. The resulting exhaust is then tested for formaldehyde, volatile organic chemicals, respirable particles, ozone, carbon monoxide, nitrogen oxide, and carbon dioxide emissions. Also measured are how much a product emits at a certain point in time, how the emissions change over time, and how the test results translate into a real building environment.

Despite its not-for-profit status, Greenguard charges \$3000 for each product certification application; \$1000 per category tested (and \$500 to have it tested each year afterward); and an additional licensing fee. These costs have proven of concern for some of its clients, which have included Steelcase, Herman Miller, and Benjamin Moore.

"Overall, [Greenguard] has the potential as a program to be a positive force," says David Rinard, Director of Corporate Environmental Performance for Steelcase. "But when you're a company who has as broad a product line as Steelcase," he says, "[The certification costs] start to add up pretty quickly."

Greenguard's Bloech admits that the certification process is not as cheap as the tester would like it to be, but he notes the organization is committed to stringent testing standards. Besides, he adds, "The first LEED buildings were horrendously expensive, but slowly it's becoming more manageable. We're in the same process, only we're about ten years behind the USGBC."

Building more testing laboratories is one measure Bloech believes will bring down costs; the additional facilities would also advance Greenguard's efforts to be viewed as an impartial industry standard. "As Greenguard is positioning itself to be similar to a Good Housekeeping Seal of Approval, the only way to really truly maintain that credibility would be to have other laboratories participating to avoid potential conflict of interest," argues Steelcase's Rinard. "You can't have the ones who created the program as the only people doing the testing and running the program."

With health concerns increasing and more states enforcing pollution measures, Greenguard figures to be busy for a long time. And while the company has yet to resolve all the issues necessary to make its system the industry's de facto standard, it continues to raise awareness of indoor air quality as a key component of healthy, sustainable buildings.

RIVER'S EDGE

The Underground Railroad Freedom Center lends gravitas to Cincinnati's waterfront development.

By Brian Libby
Metropolis
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When escaped slaves made their way north to freedom along the Underground Railroad, the Ohio River was a place to celebrate a bit before continuing on. Here Ohio law banned slavery, but superseding federal law allowed whites to recapture slaves that had crossed the river and return them to Southern slave owners. As a result, most slaves using the Railroad continued further north.

So when founders of Cincinnati's National Underground Railroad Freedom Center began meeting with architects to plan their museum's design, the notion of continuing passage was stressed. Designed by BOORA Architects of Portland and Blackburn Architects of Indianapolis, the newly completed Freedom Center consists of a series of undulating stone walls, made from massive stacked travertine blocks and connected in between with three copper-clad pavilions. The undulating walls have multiple symbolic value, standing for the meandering rural pathways slaves traveled to freedom, the nearby river that meant the first step, even a set of open arms in welcome.

Most of all, says architect John Meadows of BOORA, "There was this idea of stitching the building and the land together, because as you used the Underground Railroad to tell the story, it tended to become a more earthy story about the land." As such, the architects partnered with renowned landscape designer Martha Schwartz (who left the project before it was completed) in scheming a second block adjacent to the museum that will act as its extended front door, with ambling pathways amid vegetation. Inside the Freedom Center is a slave pen discovered in a Kentucky barn that will be the museum's centerpiece, and a striking counterbalance to the surrounding contemporary forms. But because it was a late addition required last-minute revisions to the architectural design.

The Freedom Center is part of Cincinnati's billion dollar riverfront redevelopment, and the museum is bookended by the city's two new sports stadiums: the Great American Ballpark for baseball's Reds and Paul Brown Field for football's Bengals. The development also includes new riverfront greenspace, moving of a nearby freeway partially underground, and construction of a multi-level parking garage beneath the river's flood plain. And as if the two stadiums weren't enough of a presence for the Freedom Center to contend with, it is also situated beside the landmark John A. Roebling Suspension Bridge, named for the man who also designed the Brooklyn Bridge.

“A lot of folks on their way to games or riverfront events will walk through and around this building,” says Alpha Blackburn of Blackburn Architects, who took over the firm’s leadership after her husband, architect Walter Blackburn, passed away during early construction. “And I think the quiet dignity of the Freedom Center’s architecture will be attractive to people, and a welcome kind of foil for the more chaotic streetscape of activity.”

“One of my big concerns was that we’d be overshadowed by the stadiums,” adds Freedom Center CEO Ed Rigaut. “But the museum really stands tall. I’ve even heard a few people comment that, in a way, we dwarf the stadiums.”

Is China Ready to Embrace Sustainability?

By Brian Libby
Metropolis
November 2004

Over the next two decades, China’s urban population is projected to increase by 250 million people; these city dwellers use up to 3.5 times more energy than rural denizens. Yet China has relatively few fuel resources, and burning coal—its most plentiful fossil fuel—has polluted the country and contributed to the acid rain that falls in one-third of Chinese cities. Admitting to these environmental concerns, representatives from China’s Ministry of Construction took a first step toward addressing them by announcing an ambitious sustainable growth plan for China; the scheme and its aims were outlined at the U.S. Green Building Council’s Greenbuild conference, held November 10-11 in Portland, Oregon.

Some of the plan’s objectives are outright astonishing. For example, Qiu Baoxing, vice minister of the Ministry of Construction, People’s Republic of China, told the conference’s 6000 attendees that by the end of 2010, all Chinese cities will be expected to reduce their buildings’ energy use by 50 percent; by 2020, that figure will be 65 percent. Furthermore, by 2010, 25 percent of existing residential and public buildings in the country’s large cities will be retrofitted to be greener; that number will be 15 percent in medium-sized cities and 10 percent in small cities. Over 80 million square meters of building space will be powered using solar and other renewable energies.

“Green building in China has just started,” Qiu said, mentioning the country’s upcoming International Intelligent and Green Building Technologies and Products Conference & Expo, set to take place March 28-30 in Beijing. He also mentioned China’s new National Green Building Innovation Award, to be presented to sustainable building projects, materials, and products that met specific scientific and standardized criteria.

If China follows the sustainability plan announced by Minister Qiu, the country will essentially commit itself to reconstructing a sizable portion of its built environment. In fact, China would embark on one of the largest rebuilding projects in world history. But there are some who doubt the extent to which the former Communist country will carry through with its green intentions.

“I get the sense that they understand the magnitude of the problem, at least at the government level,” says Huston Eubank, a principal with the Rocky Mountain Institute’s Green Development Services Team. “But the trick now is to translate that down into the trenches where the work is being done.”

And there remain some questions as to who will do that work. At Greenbuild, China’s representatives explicitly invited American and European firms to seek business in their country. But privately, some at the conference suggested that China wants to amass international expertise, only to pass it on to domestic firms, who would then handle the brunt of design and construction.

Yet the Ministry of Construction’s Lai Ming insists that in this situation, it’s not subterfuge that the West should worry about, but rather bridging cultural gaps. “The most important thing is you need to know China,” he said. “You need to know the situation.”

Lai argues that too many Western firms ignore the government’s counsel about how to approach business in China. He cited a Canadian sustainable insulation manufacturer that was advised to learn about local building practices and partner with a Chinese firm; instead, the Canadian company immediately jumped into marketing and distribution, only to have little success. “They came back a year later and said they were starting over,” Lai recalls, this time first researching local building conditions and preferences. “And now they are doing very well.”

It’s too early to say whether green building in China will meet the government’s ambitious targets, or how much business that will ultimately mean for Western firms. But at this year’s gathering of America’s top green designers and builders, a significant amount of the attention was turned to sustainable architecture in the Pacific Rim—perhaps for the first time.

Architects: How to Find the Perfect Developer -- Hire Yourself!

By Brian Libby
Metropolis
December 2004

So you're an architect who has grown frustrated at having brilliant plans turn out as mediocre buildings. Maybe you've worked with developers who think

contemporary design doesn't move enough product. Perhaps a few too many contractors have dumbed-down your inspired palette of materials under the pretense of "value engineering." Or maybe you're just tired of always building buildings for somebody else. Have you ever considered becoming a developer of your own architectural projects? Metropolis has tapped the expertise of five architects who have done just that. With a few easy lessons from these pioneers, you too can become master of your design domain.

Lesson 1: It's Never Too Early to Start, or: Don't Be Afraid to Empty Your Own Dumpster

Three years ago, 25-year-old Portland architectural intern Kevin Cavanaugh was getting discouraged trying to work his way up the ladder of a large firm. "I realized that even if an ideal client arrived to hire us, I wouldn't be the shoulder that got tapped to work on the project," he recalls.

Then, Cavanaugh got an influential pep talk from his wife. "She said to me, 'How much harder is it for you to do what your clients do? You should just hire yourself.'" Cavanaugh soon began sending lunch invites to some of the developers he'd sat across the conference table from at work. "I'd say, 'What's a pro forma? What does cap rate mean?' I think they thought it was kind of cute."

Before long, Cavanaugh had taken out a loan, procured a site, and begun construction on a three-story mixed-use building with retail below and housing above. At just \$107 a square foot, the palette was rough: concrete floors, sheetrock, and garage-like rollup glass doors. But Cavanaugh used this to his advantage, designing with a poetic simplicity that earned critical praise and attracted what would become the city's hottest wine bar.

When the contractor's budget came in too high, Cavanaugh spotted an \$8,000 line item for hauling off debris as a way to cut costs. I said, 'I'll do that,' he laughs. "At first the contractor said, 'No, you can't.' And I said, 'This is almost not going to be a project. If you want it to be a project, I'm going to do that.' So I had an old beat up Chevy truck, and every Friday I'd cruise over and fill it up with all the debris."

Today Cavanaugh has gone on to design and build a second mixed-use project that won top honors at last year's AIA/Portland design awards, earning praise for simultaneously promoting high-density development and doing it with affordable elegance. A third and fourth project are in early design. Who says youth is wasted on the young?

Lesson 2: Modern Design Sells-Just Don't Go Crazy

Chad Oppenheim is another up-and-coming architect who has leapfrogged his peers by complementing design skills with a development role. But whereas

Cavenaugh focuses on small self-funded boutique projects, Oppenheim recently designed and developed a 50-story tower called Ten Museum Park that has helped revitalize downtown Miami. "We sold for prices that were considered high for Miami Beach, and this was a run-down neighborhood," Oppenheim says. "Everyone was shocked." Now developers are imitating his projects.

But the reason South Floridians were willing to move off the beach into Ten Museum Park couldn't be copied: Oppenheim's design-think Richard Meier with a touch of Arquitectonica, his former employer. Despite modernism's long history in Miami, developers thought faux-Mediterranean historicism would sell better. Oppenheim proved them wrong. "You try to operate on the furthest edge of the spectrum, where the design is pushed as far as it can be without jeopardizing profit," he explains. "And it's proven true repeatedly that the extra design time and consideration for creating beautiful lifestyles pays off."

But be careful your design isn't compromised. In San Francisco, for example, architect Nilus De Matran last year completed two live-work units of a simple, crisp style that ultimately netted the first-time developer a handsome profit-but only after he fought for the integrity of his design. De Matran, a friend and disciple of Zaha Hadid, found that when it came time to sell, realtors wanted to paint his pristine white interior wild colors and stock it with gaudy furniture as a mockup to potential buyers who couldn't use their imagination viewing an empty space. "I was like, 'No way!'" he recalls. "When you've got a property sitting on a market and you're waiting for a buyer to come, it'd be easy to think they're right. But I had to listen to my instincts."

Lesson 3: No Hablo Archispeak

For years during the late 1990s, the four principals heading acclaimed New York architecture firm Sharples, Holden, Pasquarelli (better known as SHoP) had talked about developing a project of their own. "Having your own money at risk buys a lot of credibility," SHoP's Gregg Pasquarelli explains. "If you have new design ideas and methods, you should share in the risk, but you should share in the reward."

Back in late summer of 2001, the architects lined up a bold project: conversion of a warehouse in downtown Manhattan's Meat Packing District (before the hookers moved out and most of the trendsetters moved in) into condominiums that would also include a four-story addition cantilevered over an existing building. But just one month before SHoP and co-developer Jeff Brown (who helped the architects learn the building game from the client's side) needed to decide conclusively about whether to risk their life savings on the project, two jet planes crashed into the World Trade Center. "There was so much uncertainty and none of the lenders wanted to make any decisions," Pasquarelli recalls. "New York was still on fire."

So when they went calling for a loan, relying on the standard building trade language of clerestories and cornices, escrow and equity, just wouldn't do. Pasquarelli and company needed to share their vision. "We believed not only in the neighborhood and the design, but that New York City was going to bounce back," the architect explains. "But most bankers are not in the business they're in because of their visionary or creative abilities." It takes extra effort, he says, "to get people to understand what you're trying to do when it's not cookie-cutter."

In other words, like movies or other collaborative art forms, architecture requires communication skills to make your case for the funds that will foster your unique projects. Too often, Pasquarelli and his fellow architect-developers agree, architects are bogged down in "archispeak," industry jargon that confuses outsiders, or at least doesn't inspire them.

"You have to spend a lot of time trying to explain what you're trying to do, especially if it's more unconventional," Pasquarelli says. "You have to be able to communicate in ways that are not elitist and explain well the kinds of complexities of a project and what difference design can mean in resolving them."

So whether it's joining a cheesy public speaking club like Toastmasters or practicing discourse with the family, even the best designers will find that the chance to make their brick-and-mortar dreams a reality is enhanced by their ability to communicate their vision. Oh, and while you're at it, when the time comes to deliver your best sermon to that banker, it wouldn't hurt to give that all-black outfit a rest for one day.

Lesson 4: Know Thy Materials

During a recent telephone interview, San Diego architect and developer Jonathan Segal was driving to a wood supplier to purchase 4-by-10 beams for use in a skylight on his current project. "I can quote you anything about a building's cost," Segal says. "And I think most architects wouldn't know half of that."

This is a lesson architects would be well served to learn regardless of whether they're developing buildings. Tired of battling the client and contractor when your designs are abridged to cut costs? Then know the value of each material choice before you select it, and be ready to defend its value in tangible terms.

What's more, that knowledge can make the building process more cost effective. Segal has designed nearly twenty different projects in San Diego, from the sleek geometric Waterfront building in Little Italy to the stunning new cube-like Titan lofts in San Diego's East Village, and he says a key to maintaining his streak of profitable projects with refined contemporary architectural form is often just eliminating needlessly wasted time.

"I was going through some old files the other day and came across a project where the contractor walked off the job," Segal recalls. "There were three five-inch-thick binders full of requests for information on the drawings. Now, doing my own projects, I'm on the site and if someone says, 'What do I do here?' I say, 'Do this, this, and this,' and we move on. It's not three days of going back and forth."

That said, an architect-developer need not be a cheapskate about materials, either. "On the contrary," Pasquarelli adds, "I think by understanding the bottom line, you can actually spend more to make a better building. It can increase the overall budget but increases it in a way that increases value."

Lesson 5: Real Estate for Dummies

By now you've no doubt noticed the architect-developers cited here have almost exclusively built residential projects, with or without ground-floor retail added to the mix. The reason is there's a multi-year social shift happening in America: people (especially empty-nest baby boomers) are returning to inner cities by the millions, and many are giving up their houses in favor of condominiums, lofts, and apartments. The reason Oppenheim, Cavanaugh, De Matran, Segal, and Pasquarelli have been successful not just from a design perspective but also financially is that they've paid attention to both macro and micro-economic trends. If that sounds appallingly un-sexy for an architect, keep in mind that this knowledge allowed them to get their buildings built-and they're a lot nicer than what would have been put up by most of their traditional building-industry peers.

Despite the continuing demand for multi-unit housing, there are other opportunities to be found. Maybe there's a former industrial area now full of artists that in a couple years will be ready for a few restaurants and a few hip companies. Or perhaps there's a centrally located inner-city neighborhood poised for revitalization with live-work spaces. It's not just a matter of choosing a building type, but identifying what kind of architecture there's a need for in each city, neighborhood, or even block.

Like learning to swim, the hardest part, Segal says, is just to dive in: "People tell me it's too scary to develop your own projects. And I say, 'What you're doing is scarier to me. You're running a business. You've got a bunch of employees to worry about, clients calling you seven days a week. I think it's easier to do what I do.'"

Lesson 6: You'll Be a Better Architect

Business types like to talk about the bottom line, so here it is: for all the risk and uncertainty that accompanies developing your own projects, those who have done it say they're more sensitive, imaginative designers for having controlled the process themselves. There is more room for experimentation (Don't like that

wall? Tear it down!), they argue, and better monitoring of a design's execution in brick and mortar.

"We were the toughest clients we've ever had," Pasquarelli says. "You're really critical with yourself that every thing you're doing is the best use of limited funds. "But that's really when the value of architecture becomes interesting. You're able to forecast and model the relationships between zoning, design, and financial return and have that as a kind of fluid dynamic equation that you can be completely conversant with at both ends of the spectrum. You can solve problems with good design."

PAINT BY LETTERS

Designer Randy Higgins makes over a Portland art school with a fresh coat of paint.

By Brian Libby
Metropolis
June 2005

In 1998 the Pacific Northwest College of Art moved to a renovated warehouse in Portland's burgeoning industrial-chic Pearl District. But by the time the overhaul was complete, there was no budget left for painting the exterior. However, when new president Tom Manley came to PNCA two years ago, the school began discussions about a new look. "Our parameters were that it had to embody the innovative energies of a design college," Manly says.

PNCA contacted architect Randy Higgins, a member of the building's original design team seven years ago, to formulate a bold exterior that nevertheless met rigid local building code restrictions regarding murals and signage. In arriving at an idea, the school wanted Higgins to follow the rigorous analytical process PNCA encouraged in its students. "We looked at how students are taught to observe things, to enter into situations without preconceived notions," says Higgins. Working with a committee of PNCA leaders and volunteers, the architect meticulously studied the building's form and context for ideas that would give form to the paint job.

Higgins came up with an abstract pattern of gray and yellow rectangles for the exterior pattern that resembles a Piet Mondrian painting, giving this heretofore-drab gray square box an exterior that not only catches the eye, but also feels familiarly architectural. "The neighborhood is a lot of rectangles," Higgins says, referring to the mix of renovated warehouses and high-end condos surrounding PNCA. "So we just decided we were going to make a language out of rectangles."

The pattern is actually a translation of text: the sizes and colors of the wall's painted rectangles correspond to different letters of the alphabet. Higgins left it to PNCA to decide on the textural source for the encrypted pattern, with the caveat that the paint job would look best with a phrase that wasn't too long and didn't have too many A's.

The school first considered using a mission statement or other expression of values, but decided that was too literal. Instead they selected a poem by Arthur Rimbaud called "Departures," which speaks of "sounds of the cities in evening," "the pauses of life," and "departure into new affection and noise."

Completed this spring, the new paint has helped re-engage PNCA's relationship with the neighborhood and the city as the school sets a more ambitious course for the future. Portland architect Brad Cloepfil, a rising star on the international architecture scene, recently signed on to design a new master plan for the school. And PNCA itself is transforming from a traditional art school to one more oriented toward experiential design.

"It's about asking ourselves, what does this institution believe in, and how do we express that in the building?" Manley says. "Design is a function of culture, and vice versa. I very much think the process reared that."

Hilton Aims to Become First LEED-Rated Hotel

By Brian Libby
Metropolis
July 2005

Of the hundreds of building projects that have earned the U.S. Green Building Council's coveted Leadership in Energy and Environmental Design (LEED) rating since the program's inception in 2000, not one has been a hotel. But the new Hilton Vancouver in Vancouver, Washington might soon change that. The 226-room facility, which opened in June, contains an impressive raft of sustainable-design elements that the hotel's owners are hoping will earn the property a LEED certification later this year.

Designed by the Portland, Oregon firm of Fletcher Farr Ayotte, the Hilton Vancouver is 30% more energy-efficient than city code requires. Green measures include CO2 sensors that adjust the temperature in vacant meeting rooms and hallways, a heat-reflecting roof, painting and carpet made from low-emitting materials, a construction recycling rate of 75 percent, water-efficient landscaping, and operable windows.

Furthermore, the hotel's exterior is pedestrian-oriented, with parking underground. From the third floor up, the building is set back from its base,

reducing its shading on the city park located across the street. Plus storm water from the building is diverted from sewers and into underground dry wells, providing a natural filtering mechanism for pollutants.

It's estimated that, through energy savings, the hotel will recoup the green features' extra cost in as little as six to eight months.

While the Hilton Vancouver may not be as far-reaching as certain other LEED-rated projects, the fact that it not only is in the running for a LEED-certification, but also was built and is occupied by a major corporation like Hilton, are major accomplishments. It's just the sort of market transformation that green-building enthusiasts point to as a key to the movement.

"I can't tell you that a revelation has happened [because of this project], and that everything we do in the future will have that in mind," says Brad Hutton, who serves as Hilton's regional president. "But it has certainly caught the attention of senior management. I'm sure that Hilton, as it looks at future projects...will want to take a good look at [green building] because of this."

Hutton's mention of joint ventures is crucial. Surprisingly, many hotel buildings are owned by parties other than the ultimate occupant. The City of Vancouver, for example, owns the Hilton Vancouver site. So while sustainable measures may be attractive to the hotels themselves because of reduced operating costs, the incentive to build green may not always be there for the owner or developer.

Nevertheless, Hutton believes hotels will increasingly embrace sustainable measures simply because it's what customers want. "There's a universe of potential business out there from people looking to patronize a greener facility," he says. "When the notion of going for that in Vancouver came up, it was up to Hilton to decide if we could draw more business to that hotel. The answer was absolutely 'yes.'"

RETURNING TO ITS ROOTS

With a new block-sized park by Herbert Dreiseitl, Portland restores a piece of its natural landscape.

By Brian Libby
Metropolis
March 2006

Before the west bank of the Willamette River in Portland was settled in the 1840s, the unfettered natural landscape consisted of several creeks, marshes, and ponds. Salmon rested on their way upstream, and herons flew overhead. But

in the late 19th and early 20th Century these wetlands were filled to become downtown Portland to the south, and a busy port and rail yard to the north.

Today more transformation is underway. Portland's industrial sector has been re-born as fashionable Pearl District condos, galleries, and shops. A 2000 master plan for the former Hoyt Street rail yards by Peter Walker, co-designer of New York's Ground Zero memorial, has spawned a series of small, block-sized parks. Walker designed the first one himself: family and pet-friendly Jamison Square. But the second, by acclaimed German landscape designer Herbert Dreiseitl (in collaboration with the Portland firm Greenworks), was conceived as a peeling back of the urban fabric to restore the buried wetlands. Both figuratively and literally, the space is returning to its roots.

At Tanner Springs Park, which opened in fall 2005 but is just beginning to grow into itself, a small grove of native oak trees gives way to tall grass and reeds before sloping downward to a marsh. "It's a key idea for the park: going from dry to wet, from hill to valley, or forest to the open fields," Dreiseitl says. An undulating art wall, fashioned from locally reclaimed railroad ties, strikingly evokes the visual metaphor of liberating Mother Nature, as the ties seem to be peeled back to reveal the landscape underneath. It's a lot to squeeze into a 200-by-200-foot block. "It's not a question of scale," Dreiseitl argues. "You find the same systems and patterns in a large scale on the landscape as you do in one little seed."

Besides the city-to-nature symbolism, Tanner Springs Park also represents a more tangible emerging philosophy regarding wildlife protection in a high-density urban setting. Instead of setting aside one or two larger parcels on the outskirts of the city, Portland planners now favor introducing small pockets of nature throughout. "We've done a lousy job of protecting nature in the city until very recently," says Mike Houck, urban naturalist for the Audubon Society of Portland and president of the nonprofit Urban Greenspaces Institute. "This is a new phenomenon."

"Having the urban fabric on one side and nature on another in the form of a big park or wildlife refuge, that's an older concept," Dreiseitl agrees. "I believe we have to bring sustainability into cities in a decentralized way, more like stepping stones. And I think nature itself works like this too."

FEATHERING THE OFFICE

Artist Patrick Dougherty builds a nest where Portland creatives can hatch ideas

By Brian Libby
Metropolis

May 2006

Advertising agency Weiden + Kennedy's headquarters in Portland, designed by celebrated architect Brad Cloepfil, is an immaculately clean-lined concrete and wood building bathed in natural light. But even when you work in a modernist gem, sometimes the most creative ideas are prompted by a change in environment. That's the thinking behind The Nest, a kind of live-in sculpture by Patrick Dougherty made entirely with wood branches (mostly willows) collected from a nearby forest preserve, which are twisted and stretched into form. This primitive nest/hut, completed earlier this year inside Cloepfil's W+K headquarters, is conceived as a meeting space for some of advertising's most sophisticated minds.

Dougherty is an internationally renowned artist whose self-described "stick works" recall, animal creations like bird nests and beaver dams, as well as primitive man-made dwellings. Like Andy Goldsworthy, Dougherty's works are usually temporary. They've been exhibited at museums, in public plazas, and even the occasional rock concert. "I did one for Phish that was up for just a weekend," he says. "It was just bulldozed afterward, but something like a hundred thousand people walked through it."

What's different about Dougherty's latest creation is not only its permanence, but also the fact that Weiden + Kennedy hopes to use the nest as a creative incubator. "The building is such a geometric form, and scale is such an enormous part of its beauty that having something really small, organic, and uncontrolled seems to partner up well with the weird personalities we have here," agency founder Dan Weiden says. "Creativity is not a completely logical act. Sometimes the idea comes to you when you stop thinking about it, when you're involved in some other routine or sense of play. I suspect by its very nature The Nest can be a place where things are born and hatched."

GOING THE GOOGLE ROUTE

By Brian Libby
Metropolis
May 2006

The challenge was a relatively simple one: take the bus from my home near Hawthorne Boulevard in Southeast Portland, Oregon, across the Willamette River to a laboratory just north of downtown on Naito Parkway, about three miles away. The trip was planned using Google Transit, a new pilot program being tested here that is intended to act as a one-stop guide to bus times, maps, and directions. Like Mapquest for mass transit. And sure enough, Google Transit was up to the challenge.

The process began like any Google search, by entering the addresses for my starting point and destination info into the familiar keyword box. It felt a little clunky, because one must enter not only both addresses but also the city and state twice. People love the simplicity of Google's pages, but a couple drop-down boxes might have worked better here.

Within a few seconds I was given a map of my journey, with the drive highlighted on major roads (for those pariahs wanting to take cars), a listing of the next four bus departures, the duration of the journey (35 minutes, including walking time to and from bus stops and a transfer from the 70 line to the 14) and the cost. In the last case, the price of the bus ticket (\$1.65) was offered along with a parenthetical comparison of what driving there would cost on average in gasoline (\$1.12). I arrived at my destination within a minute of the predicted time (10:56 a.m).

That said, Google Transit is still in its infancy, and a few additional modifications wouldn't hurt. For example, after getting off the bus, my walk included a pedestrian bridge over nearby Union Station's train tracks. Because I already knew the area, it was easy enough to figure out, but non-Portlanders using Google Transit might have been tripped up trying to get around the train tracks. Also, the Web site for Portland's transit agency, TriMet, includes an important tool that Google Transit doesn't. It offers the same list of departures and arrivals, but also includes a code number for each bus stop that one can use to find out how many minutes away the bus is by calling TriMet by cell phone or logging online. With phones, Blackberries, and other hand-held devices increasingly ubiquitous, Google must certainly have such monitoring systems underway.

As Google Transit expands to more cities, it will be a considerable asset to know that no matter where you travel, one Web site can act as a guide to local mass transit. If, as Ken Kesey says, "You're either on the bus or off the bus," my experience with Google Transit was an encouraging climb aboard.

KYOTO'S ADAPTIVE ADVICE

An international conference focuses on practical designs for aging societies.

By Brian Libby
Metropolis
November 2006

The 2nd International Conference for Universal Design in Kyoto got off to an inauspicious start when the opening speaker, His Imperial Highness Prince

Tomohito, appeared on stage only briefly to explain that he'd suffered a broken jaw, which had subsequently been wired shut. There would be no lecture.

Yet Prince Tomohito's unfortunate injury provided an oddly fitting reminder of why a host of industrial designers, architects, city planners, caregivers, elected officials and corporations had gathered at Kyoto's International Conference Hall to discuss universal design (UD). (For those new to the term, UD is an approach to the design of products, services, and environments to be usable by as many people regardless of age or ability.) With world populations aging rapidly--a trend already well underway in Japan, a self-dubbed "super-aging society"--even royalty can encounter accidents.

A quintessential universal design success story is the Good Grips peeler, created by housewares industry veteran Sam Farber for his arthritic wife. Today the ergonomics of its broad rubber handle make Good Grips ubiquitous in society and not simply as a product for the handicapped. "Universal Design has never been a marketing platform," says Alex Lee, president of Oxo, Good Grips' parent company. "But it's a smart philosophy. In the next twenty years there will be a lot of people in their 70s and 80s. There's a lot of business potential."

The conference reinforced that what it means to be old is changing. Many people over the age of 70 are staying active, whether it's someone in Norway (a world leader in universal design along with Japan) extending their career or a grandparent in sub-Saharan Africa taking care of an HIV-positive baby whose parents have died of AIDS. It isn't just polite to make their world accessible: it's imperative.

For many other retirees, mental and physical isolation is the challenge. A major antidote, says Dr. Jane Barratt, secretary general for the International Federation on Aging, is creating "age friendly cities. It's about creating enabling environments. Public space is an important opportunity."

Relatedly, there was a debate at the conference about whether governments can or should mandate the creativity and innovation necessary for good UD. "I think fixed standards and regulations make design more predictable," if not outright boring, says Valerie Fletcher of Adaptive Environments in Boston. "It becomes, 'Just tell me what I have to do.'"

But the government still must play a role, cautions Takuma Yamamoto, president of the conference's organizing committee. "Our dream is to send the message that universal design is the global standard, not just for industrial design, but for architecture, community planning, public transportation, telecommunications, broadcasting, disaster prevention, law."

A range of products geared toward mobility and independence could be found in the conference's exhibit hall. Toyota and Nissan unveiled dazzling futuristic one-

person vehicles. Toyota's i-Unit concept vehicle could limit transportation restrictions by acting as both a pedestrian and limited city driving—kind of like a moped crossed with a tricycle. Nissan's Pivo seems more strictly a one-person automobile, but its cab swivels a full 360 degrees for added safety and mobility. And it's quintessential universal design in that it would aid elderly and/or handicapped persons getting in and out of vehicles, but that's a feature everyone would enjoy. For example, it'd mean never more having to get in and out of your car on the dangerous street side next to moving traffic.

A Sony television eschewed the traditional remote control for a stuffed animal and several small cards with different pictures representing subjects. Touch the card with a picture of a baseball, and a game appears onscreen

Yet the movement ultimately is about something deeper and nobler than products. "We in the UD movement share work that is meaningful and makes a positive difference in the world," says Fletcher. "Of course we appear to be pushing against the tide in a world more narrow minded and mean spirited. We know how far we have to go. But coming together like this reinforces a sense of the rightness of our mission."

THE ART OF COMPROMISE

A LEED Platinum rehab in Portland finds a balance between preservation and sustainability.

By Brian Libby
Metropolis
January 2007

Since opening in 1891, over its long history the First Regiment Armory in Portland has hosted everything from political rallies to roller derbies. However, for the last few decades of the twentieth century its castle-like turrets and parapets disguised a more mundane role as a warehouse for kegs from the adjacent Blitz-Weinhard brewery. Now it is poised to become the first historic building renovation to earn a 'Platinum' LEED rating from the U.S. Green Building Council—a transformation that illuminates just how tricky (yet ultimately still possible) it can be to strike a balance between the principles of sustainability and preservation.

When the armory was purchased in 1999 by developer Gerding/Edlen, its location next to the burgeoning Brewery Blocks—mixed use shops, condos, and offices on the former brewery site—seemed ideal. But a host of would-be tenants backed out. Then, as if on cue, the city's largest theater company came looking for a new home. "We actually had a set of demolition plans, and I was just dying at the thought of it," recalls Steve Domreis of GBD Architects, the Brewery Blocks

designer commissioned for the armory rehab. “Then in walks Portland Center Stage and I thought, ‘How are we gonna get a theater in here?’”

The key, team members say, was to treat the interior theater like a self-contained building as much as possible. “We built a ship in a bottle,” explains GBD principal Steve Domreis. With a café, interactive exhibits, and a landscaped “sliver park” outside, the Gerding Theater also hopes to attract visitors even when there is no performance onstage. Toward this end, artistic director Chris Coleman likes the building’s contrast of raw, weathered shell and sleeker modern interiors. “It feels handsome but not intimidating,” he explains, “a place for an arts patron but also for somebody coming on a skateboard.”

Although LEED rewards the use of historic buildings, meeting sustainability goals and preserving architectural integrity involved a complex series of interdependent decisions. For example, concrete floors helped provide structural support so additional steel bracing was not needed, thereby keeping the building’s brick walls unobstructed and its massive old-growth timber ceiling trusses viewable from the multi-story lobby. “We used fewer materials this way, but that’s not something you get a LEED point for,” Domreis points out. However, the concrete also acts as conduit for an ultra-efficient radiant heating and displacement ventilation systems, preventing the need for ceiling ducts and using far less energy—something they did earn #TK LEED points for. Indeed, the project was budgeted at \$36 million, but because it will be about 29 percent more energy efficient than code requires, the more important figure may be its reduced utility costs.

Still other choices involved acceptable compromises. GBD fulfilled the LEED requirement for natural daylight and indoor air quality with 42 skylights, 17 of them operable for natural ventilation. But preservation strictures mandated that the skylights not be visible from the street. “You shouldn’t be afraid to negotiate with the historic people,” Domreis says of the solution. “When you’re on the same block you’ll never see [the skylights], but three blocks away you will. There’s a reason why there hasn’t been historic building to earn ‘platinum’ before, but I think the processes are evolving to compliment one another.”

TOKYO STYLE

Uniqlo hires Japan’s hottest retail designer to apply his distinctive brand of showmanship to the company’s new Soho flagship store.

By Brian Libby
Metropolis
February 2007

Shoppers who enter the New York flagship store for Japanese clothing chain Uniqlo are probably looking for inexpensive cashmere sweaters rather than the chance to see the work of Masamichi Katayama, Japan's hottest retail designer. After all, the stores of low-cost competitors like Old Navy and Gap feature generic environments with little flourish beyond the apparel stacked on tables and hanging on racks. But Uniqlo's Soho outpost, which opened last November, is a different kind of shopping experience. Inside, the gleaming white space acts as a backdrop to set off the merchandise, which is carefully arranged by color, creating a vibrant architectural pattern. And the first thing that greets customers is a museum-like glass case displaying #TK mannequins that spin both individually and in unison.

Katayama, the handsome 40-year old head of Tokyo firm Wonderwall, is known for sleek but pristine minimalist designs punctuated by a postmodern sense of playfulness and color. But while Wonderwall has designed furniture, lighting, bars, offices, and even collaborated on the studio set for a BBC program about design, it's fashion boutiques—from an elegant space for Marc Jacobs bags to a series of hip Bathing Ape t-shirt and sneaker outlets—for which Katayama seems to have preternatural ability. Maybe that's because shopping is his favorite activity, both as research and entertainment.

"The act of making a purchase alone is not satisfying enough," Katayama says. "It has to be an experience. I've always wanted to design an atmosphere or a situation rather than a form. And by going shopping, I can equip myself. I like to walk around and inspect spaces, designing in my imagination. I don't think this is something you can obtain from marketing data." Katayama, often dressed in a combination of chic designer jackets and boutique jeans and t-shirts, is also a bit of a dandy: He may be conducting research as he shops, but he's also having fun. To wit, Wonderwall's offices in the fashionable Ebisu district of Tokyo are stocked with his acquisitions, from stacks of rock CDs to toys and framed artwork.

But as Katayama moves increasingly beyond Japanese shores, he must abandon the ideal set of conditions that exist in his home country for high-budget retail. Despite not having fully recovered from the late '90s Asian financial crisis, Japan remains better suited economically and demographically to produce flashy, expensive stores. "There is much more purchasing power in Japan," says Paco Underhill, author of *Why We Buy: The Science of Shopping*. "You have more rich people per capita and fewer super-rich. Second, there is the spending power of parasitic singles: You have a whole class of men and women who live at home. Everything goes into fashion and going out."

Not only do Tokyo and other major Japanese cities include a bevy of elaborate boutiques, but they also are remodeled more often. This reflects a larger trend in Japanese consumer products that extends far beyond fashion: From canned drinks in supermarkets to children's toys to architecture, new products are

introduced in Japan at a pace far greater than the United States or Europe. “I think some of the biggest reasons why Japanese retail design progresses so quickly stems from the fact that there are far more rapid changes and competition with stores,” Katayama adds. “There’s been a shift in expectations—demanding more aspects of design as part of the whole package.”

Underhill also says the Japanese are more visually oriented than Americans. “Their language is icon based, so the typical Japanese has to memorize all those Kanji characters,” he says. “There is a different visual training that happens, whether it’s in haiku or manga, and that’s reflected in Japanese design. We see that in how a consumer can scan something quickly and get the idea.”

Japan also has, like Britain and France, a center in Tokyo that can be easily accessed by people from all over the country thanks to its transit system. “Therefore you can focus resources in a way that is very different from the U.S. market,” Underhill adds. “If you are a cool store, you can pay an astronomical rent and spend more for interior design. You’re not worrying about designing for 100 malls across the country.”

Perhaps unsurprisingly, Uniqlo isn’t planning to have Katayama design all of the stores it rolls out across the U.S. But in high-density cultural capitals like New York, San Francisco, and Miami, larger-profile flagship stores make a bold designer like Katayama (and his price tag) worthwhile. “We wanted to make the Soho store very special,” Uniqlo head of marketing Shin Shuda says of the company’s first global flagship. “Our target market is the fashion innovators, the people at the top of the triangle. We wanted the design to communicate that we make products at awesome prices and still have a lot of style. Katayama-san is very good at understanding what the branding’s about and transferring that into architecture.”

The Soho Uniqlo store is a 36,000-square-foot, three-story behemoth that Katayama makes feel intimate by carving out smaller areas using porous walls and reflective surfaces that let natural light permeate. “Light is important for the Uniqlo store,” he says. “I regard it as a material, something able to manipulate emotions. Despite the fact that you cannot see it in the actual design, it creates just as many details of shadows.”

There’s also a subtle strategy in his forthright presentation of merchandise: showing so much of it at a time—plentiful sweaters in all the colors of the rainbow, pillowy racks fat with white ruffled blouses—emphasizes its volume, and therefore its value. Though Uniqlo—which is neither as up-market nor eccentric as many of Wonderwall’s other clients—is a comparatively reserved design, those mannequins are vintage Katayama. Spinning to highlight either a single piece or an entire collection, they’re the mechanical version of a runway show. “They tell an important story for the Uniqlo brand that: value can be glamorous,” says John C. Jay, a friend of Katayama’s who oversees American ad agency

Wieden + Kennedy's Tokyo offices. "Katayama has redefined the term 'showman' by focusing on product concepts and the lifestyle of the brands rather than on any personal design style of own."

And while the US and Europe bring different conditions for design, Katayama doesn't want to stop being Katayama. "If the design approach is correct and accurate, wherever it may be, beautiful things are beautiful, and fun things are fun in any country," he says. However I do think carefully of how I would approach the setting. In other words, I regard the environment in which the shop is set as a design component, used in the design process."

Katayama's gift for the theatrical—and his career ascension in Japan—is closely intertwined with the rise of Bathing Ape apparel, which today is favored not only by millions of Japanese teens but also conspicuously worn by international performers like Jay-Z and DJ Shadow. At Bathing Ape stores, t-shirts and sneakers are cast in fluorescent colors and camouflage patterns stamped with a simian symbol borrowed from the camp classic "Planet of the Apes." From his first design in 1998 for Bathing Ape, the Busy Workshop in Tokyo's Harajuku district, founder Nigo gave Katayama remarkable freedom in approaching retail space as an instrument for attracting customers. "He allowed me to completely overthrow the conventional theory of a clothing store," Katayama says of Nigo. Bursting with imagination, Busy Workshop and its contents aren't evident from outside—they have to be discovered. The store features glass stairs that carry customers on a symbolic journey up to the elevated chrome floor of the futuristic showroom. It's also worth noting that the Harajuku Bathing Ape was remodeled just three years later.

But it's with the presentation and packaging of the apparel itself that Katayama seems to have the most fun. The 1999 Bape Exclusive shop in fashionable Aoyama packaged t-shirts like canned goods in a refrigerator. At Foot Soldier, a 2001 Bathing Ape shoe store in Daikanyama, Tokyo, a giant glass-enclosed stainless steel conveyor belt carrying sneakers loops over a colorful checkerboard carpet. "Ultimately simplified design, humor and playfulness, and finally the product, help create a well balanced pyramid for my design," Katayama says.

For the modest 100% Chocolate shop in Tokyo, Wonderwall maximized every inch by furnishing it exclusively in a delectable brown, including the suspended ceiling shaped like an oversized chocolate bar. Last year the OriginalFake boutique opened with a playfully schizophrenic design split down the middle: the left side is dark and the right side is bright white. The centerpiece is a giant glass-encased statue of the company's mascot, a mouse severed in two with one half skinless, its internal organs revealed like an anatomical model.

But as Katayama's career blossoms beyond Japanese shores, he will have to prove his designs are more than palaces of cool. "We have a long history where

stores win prizes and don't make any money," Underhill says. "It has to work well too. It's a stage set in which employees and customers have to play. The progressive merchant in the twenty-first century is looking at architecture, communication, merchandise, and operating culture. What defines a great store is when they all work well together. I certainly wish Uniqlo well, but I look at it saying, 'They spent so much money. The kind of volume they're going to push out the door to make money is astronomical.'"

Even if America can't generate the perfect storm of high-end retail conditions found in Japan, Uniqlo's marriage of style and pragmatism may represent a viable direction for Katayama. Long before Wonderwall agreed to design the Soho flagship, the chain was known for its meticulous organization of merchandise—on massive shelves built into the wall—by size and color. Katayama ran with that formula, adding his own dash of spectacle.

It just so happens these are rules he professes to live by. "Having a sense of balance is extremely important," he says. "The first thing I do is narrow the use of my design elements. I then add a touch of playfulness that may seem needless in terms of usability. But ultimately, I want interior design to be magical. The key in this process is to make sure that the products exist as the shop's protagonist."