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Speaker: Eames Demetrios, Director, Eames Office

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Contents © 2007 [ISSN 1095-4775], Northwest Architectural League and ARCADE except as otherwise noted. All opinions expressed are those of the writers. We make every effort to ensure accuracy, but neither ARCADE nor its volunteers or officers of the Northwest Architectural League will be held liable for errors. Editorial content is guided by the Editorial Committee. Ideas for articles may be sent to info@arcadejournal.com. We also invite news, calendar entries of interest to the design community, and suggestions for New Work – all of which may be sent to the editors listed here.

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Volume 26.01 Fall 2007

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"Skunk Works" is the official alias for Lockheed Martin's Advanced Development Projects Unit —a unit dedicated to the development of unorthodox engineering concepts and designs. The name "Skunk Works" comes from a device featured in the *Li'l Abner* comic strips — a machine that could distill "kickapoo joy juice" from old shoe leather and dead skunks.

5 Points for a New (Portland) Architecture (Critic)

Dear ARCADE: A few of us Portland architects got together and came up with the following guidelines for the *Oregonian* newspaper to use while interviewing for a new architecture critic. With apologies to M. Le Corbusier.

In order to be a decent architecture critic, you (the applicant) must:

Have a substantial knowledge of, or background in, architecture. This provides you with architectural values grounded in practice and/or theory, a necessary prerequsite to any independent thinking. Without them, you cannot comprehend what "good" or "interesting" work is and your viewpoints will forever be shaped by the agendas of others, resulting in merely architectural gossip (unfortunately something Portland already has). A reasonable background in the field means you will at least have the ability to distinguish trends and extrapolate PR from work and ideas that truly have something to say.

Be passionate about architecture. If you don't love buildings and landscapes and cities, from the beginning of time to the present day, stay out of it and let someone else come in who does.

Be willing to learn, if your resume in architecture is thin. Ask questions, take notes, attend lectures and meet everyone, not just local celebrities and power brokers. Resist the temptation toward imperiousness, based simply upon your position of influence.

Understand the tremendous power a daily newspaper has to prejudice public opinion; exercise it with wisdom and without personal vengeance. To use your position as a public relations vehicle for one particular firm is an abuse of that power and an embarrassment to the community at large. And please, go easy on the celebrity coverage – why hash over the same tired ground when there are so many opportunities to shine a light on lesser known regional talents and issues? Of course, if you don't know architecture well, you'll lack the capability to identify these (see Point 1).

Do your research professionally and accurately. If you get it wrong, apologize promptly and give the right people credit. Incorrect attributions, inaccurate descriptions and the consistent omission of information erodes your credibility across the board.

Respectfully submitted, Ms. Belle Luce Keyes and Friends Portland, Oregon

() Care to comment on this or any other article? Contact kelly@arcadejournal.com.

End of an Era: Gragg at the Oregonian / Clair Enlow

Randy Gragg has left the Oregonian. He's gone on to a magazine project launching about the time this goes to press; one he's understandably closed-lipped about.

Portland architects are heaving a sigh of relief or waking up and wondering if the heat and light around big design issues was only a dream.

Design was not on the assignment list at the Oregonian 15 years ago. "They covered standard hearings and controversy, but there was very little and mostly after the fact," said Portland urban designer George Crandall.

When Gragg got on staff in 1993, he applied the chutzpah he had honed as an art critic (and editor of Seattle's non-profit arts journal, *Reflex*) to the real buildings going up all around him. Over the years since, Portland joined the small club of American cities with architecture critics who are identified with them.

How did it happen? It's easier to say why it doesn't happen in most places – including Seattle. In the metro daily, architecture tends to be a stepchild in the houses of arts and culture, lifestyle, real estate or political affairs. The issues are shunned as arcane, and budgeting space for it makes editors squirm. They fear catering to commercial or political interests. On the other hand, negative commentary seems to beg for a lawsuit.

Finding a little slack in the chain of industrial journalism, a writer can keep internal skeptics at bay long enough to get a voice. When he started at the Oregonian, and long afterward, Gragg's formal beat was reporting on the arts. He just extended his coverage to include architecture. He took on big buildings, like 1000 Broadway, ODS Tower and Fox Tower, with focused irreverence. This shifting stance persisted despite rumblings among his editors.

And whereas architecture-as-art-and-culture gets reviewed after the fact – just like a concert, play or art exhibit – Gragg made it a point as he matured to anticipate the final stages of design, so that his critical responses could actually be heeded and acted upon. He gave the redeveloping Pearl District special scrutiny, even helping to thwart an early effort by developers to escape compliance with the city's downtown design review process.

With Portland's aerial tram on the south riverfront, he called for a design competition, lest such a potentially iconic project get reduced to highway engineering standards. Grumbling about the cost of the sculptural steel-framed station that resulted (with photovoltaic screens) is dying down, as the tram captures the public's imagination.

In these cases, Gragg rightly claims resposibility for directing public attention toward opportunities for excellence. "He was for a bolder vision," says Oregon's Third District Congressman, Earl Blumenauer. "He was consistent in that regard."

Gragg has been criticized, and not just by populist Portland blogger Jack Bogdanski, who clearly believes he is in league with the devil's duo of developers and planners pushing density. And Gragg's praise of certain projects – like the imperial Nike North Campus in Beaverton – has come under fire.

These views lend credibility to another concern: The critic without strong credentials gets spun by articulate and successful architects and their cronies. Like other journalists and critics who have taken up the challenge of writing about architecture for wide distribution, notably Herbert Muschamp of The New York Times, Gragg has been accused of playing favorites. To paraphrase, he never saw a project by certain names – say, Cloepfil or Holst - that wasn't great, and he trashed or ignored the work of others without regard for the complexities of design projects.

The fact that next to none of the architects who have grumbled about Gragg in the past will articulate these concerns on the record is perhaps a testament to the degree that design-oriented architects rely on publications to validate their work.

By his own account, Gragg was just "highlighting the work of younger architects who were breaking out and challenging convention...as any critic would...and that's a small group." Equal-opportunity criticism may be oxymoronic, but these jibes work on the above-mentioned insecurities in news institutions, and make internal support for the critic even more tenuous.

As Gragg makes the transition from critic to entrepreneur, let us hope the space he and his editors and readers created at the Oregonian does not collapse. Executive editor Peter Bhatia is supportive but not encouraging. The power of Gragg's arguments is hard to replace, he says.

"It has to do with market," said Bhatia. "A place like Portland can support [criticism]..." However, there is no particular effort to rehire or even fill the role. "It's a matter of priorities," he says. "You only have so many resources, and you have to figure out how to deploy them. When the most popular and crucial functions are being set aside, then the ones that are even more arts-oriented will be."

But markets are created, as city and critic mature together. Ultimately, the role of the critic is to educate the public and hold designers, owners and developers accountable. Not just for the money they spend and the program they fill, but for the places they create and the opportunities they may miss.

And that's more than fair, according to Blumenauer. "The developer and the architect, they have the ultimate pulpit the building, the land, the commission," he says. "They get the last word."

Clair Enlow is a freelance journalist and columnist for the Seattle Daily Journal of Commerce, who suffers from Portland-envy along with many other seatelites.

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Arthur Erickson's First Masterpiece on Sale: The Filberg House / Trevor Boddy

The "most beautiful house in Canada" is up for sale, and \$10 million will net you a masterpiece. The Filberg house in Comox was called just that by Canadian Homes in 1961, soon after this airy, pavilion-like dwelling was completed.



Vancouver Island.

The Filberg house is perhaps the best integration of modernist house with modernist landscape design in the province. The rolling lawns around the Robert Filberg house are deceiving, as according to Mr. Erickson, they are anything but natural: the slopes, views and shapes of the entire bluff-top landscape were altered by the client working closely with the architect.

"When I first arrived up there," says Mr. Erickson, "Robert [Filberg] was on top of a small earth-mover, a Caterpillar," scraping and moving the soil of the prime ocean-view land his lumber-baron father had long owned. Mr. Filberg had studied at the University of BC with Erickson in the early years of World War II, just before the architectto-be joined up with British Intelligence.

"I knew him only passingly then," says Mr. Erickson, but after receiving the house design commission in 1958, they bonded deeply. "I would go out there from Vancouver on weekends, and we would cut and scrape and revise the landscape, tenting right up there to understand the play of light." Mr. Erickson says the design emerged organically months later, only after client and designer came to share an understanding of the site's sun, shade, view and surrounding flora, which includes a magnificent mature oak, still standing.

At the time, Mr. Erickson was a UBC architecture professor obsessed with international travel (the Filberg house borrows profoundly from Andalusian Islamic architecture), but his own design portfolio consisted solely of several small houses after, in his own words, "being fired by all the best architectural offices in Vancouver."

Mr. Erickson's growing friendship with Mr. Filberg made for an unusually close mapping of architectural detail with his client's needs. For example, more of the walls of this house are covered with glass than in any other Erickson design, tempered by outrigger shades fashioned out of a lattice of yellow cedar blocking."Rob had a problem with depression, especially in winter," says the architect, "so we tried to bring in as much tempered light as we could, in all seasons."

There was never an opportunity to test whether this healing-by-design would work, because Rob Filberg killed himself shortly before house construction was completed. By the 1980s the Filberg house had passed into the hands of a local surgeon, an Inuit raised in arctic Canada. With his northern background, he found the house filled with far too much light, so he removed the cedar lattices, and replaced the perimeter glass with pink-painted plaster walls and tiny off-the-shelf windows. The house that had first vaulted Arthur Erickson into international prominence had been almost totally bowdlerized.

This is where the story shifts from tragic to hopeful. Doug Field, owner of the locally manufactured BuzzBomb and Zzinger fishing lure lines, purchased the house he had visited as a child for \$450,000 in 1999. Using skills honed in restoring antique cars and aircraft, and in his fishing lure business. Mr. Field and his then-wife spent nearly a decade painstakingly restoring the house, right down to the tiniest details of metalwork and stair treads.

The Field's very accurate restoration of the Filberg house is all the more amazing because they did it without any direction from Mr. Erickson's office, or indeed any preservation consultant. They found pieces of a long-removed copper fireplace hood in a rummage sale, and worked to perfect their restorations from every image of the house's interiors and exteriors they could find.



The Arthur Erickson-designed house sits astride a spectacular bluff. blessed with one of the most astonishing views in the province: straight south to Hornby and Denman Islands, past them to the cone of volcanic Mount Baker, a hundred and sixty kilometres distant; east to the snow-capped peaks of the Coast Range on the mainland; and west to the closer-in forests and mountain slopes of

Just after the Fields finished their restoration, and just before their work was recognized with an award from the Architectural Institute of British Columbia, I had the honour of being one of the first people to spend a night in the restored Filberg house (the Fields then lived next door in a conventional big bungalow). I could lay in bed and watch the sun track over the oceanside view, because Mr. Erickson had set master bedroom windows low enough to ensure visual contact. In the course of 30 hours, April's slate grey sky vaults shifted to continuous downpours then brightened, the house's spaces and appointments equally impressive in any condition. Late in the day the cubic, high-ceiling living room's fieldstone walls glowed with sunset light diffused through the cedar gratings.

The Filberg house's main structure is thin steel columns, fattened at the top with cylindrical cedar up-and-down barrel-lights, the plaster roof above them undulating under a skylight to capture even more of the enthralling view. A cellist friend wished she had brought her instrument, finding Mr. Erickson's spaces theatrical, even musical.

Indeed, Rob Filberg envisioned the house as the site of evening entertainments at a peace-promoting international think tank he had wanted to establish there, says Mr. Erickson, with cabins for visiting scholars, artists and politicians scattered around it in his site plan. The institute was not to be, as the Filberg family sold the house soon after his death, later endowing the more conventional log house where Robert grew up as Comox's community arts space.

The Filberg house is impressive, but what knocked me out - as in no other house in a life's work of critic's touring – was that surrounding landscape first sculpted by Mr. Erickson and Mr. Filberg 48 years ago. In my view, this is Canada's finest piece of land art, a made landscape the equal of any creation by artist Robert Smithson or landscape architect Roberto Burle Marx.

Now that Doug Field has the house and grounds up for sale at \$10 million, it is this landscape that I am most worried about. The house is safe, I would think, but those cliff-top lands are ripe for chopping up into oceanside condos, an absent millionaire's second or third house.

Neither the Filberg house nor its grounds have any historic site protection from municipality or province. I hope that a new owner with the vision and rootedness of Rob Filberg or Doug Field purchases it and keeps this true masterpiece – Arthur Erickson's first – intact for future generations.

Vancouver architecture critic and urbanist **Trevor Boddy** has written and consulted in Oregon and Washington since teaching architecture at the University of Oregon. His column Dwelling is posted every Friday at www.globeandmail.com

Drawing courtesy of Arthur Erickson. Photos: Geoff Erickson

(i) Arthur Erickson_www.arthurerickson.com



Looking Forward Looking Back: 25 Years of Earthworks at Mill Creek Canyon / Brice Maryman and Cheryl dos Remédios

Contemporary artists and designers are chafing against the long-held view that humanity stands apart from natural forces. For artists, ecologically-aware, site-specific installations are becoming the norm.



At the same time, progressive designers and engineers are moving away from the still-prevalent emphasis on building for perpetuity, and they are beginning to embrace flexible systems, distributed networks and embedded resilience as the ideal. In a world that brings us Katrina and climate change, stasis seems less and less stable.

Strange as it seems, 25 years ago Herbert Bayer succeeded in creating an infrastructure that actually brings us closer to nature, showing us a new way to work with the systems that flow beneath our feet. Installed in 1982, the Earthworks at Mill Creek Canyon were immediately lauded for their fusion of art and infrastructure, making the installation a powerful precedent for engineers, landscape architects and artists. Originally implemented due to the need for a flood control dam, the installation placed formal and aesthetic considerations on the same plane as functional ones, creating a richly layered public space.

As a Bauhaus master, Bayer's entire career was dedicated to the integration of artistic concerns into the everyday operations of society. Through his work, he carried on his mission of continually seeking to fuse form and function. Perhaps nowhere else did he carry out that ideal on such a grand scale as at Mill Creek Canyon, his first and only public park design

While addressing the functional requirements of the program, Bayer himself lays out his vision for the park in the August 1982 King County Arts Commission newsletter: "A dam in the ordinary sense constitutes a radical interference with the natural configuration of the land. My intent was, therefore, to give the dams a natural appearance conforming to the landscape (surroundings) and to become integral parts of the landscape being created."

To achieve this vision, Bayer crafted a series of sculpted spaces that feel both ancient and modern. Pure forms – cones, circles, lines and berms - are built into the alluvial delta at the mouth of Mill Creek Canyon. Grass and concrete, a wood bridge and steps: these are the materials at work, as well as the natural forces of Mill Creek itself. This restrained vocabulary allows focus to remain on the spaces themselves – with solid, archetypal forms playing against the seeming impermanence of the creek that meanders through the site.

But even here, where Bayer tried to work with nature, the regulatory and contextual terrain has shifted beneath the dam's foundations. As a result of environmental changes, the *Earthworks* is less pristine than it was when first built. The requirement for the dam's spillway has shifted from a 100-year storm event to a 10,000-year storm event. The Earthworks has also been impacted by changes in fisheries regulations since Mill Creek was recently designated as a "Class A Salmonid Spawning Rearing and Migration" water body. While restoring fish runs has always been a project goal, the City of Kent is now struggling with the proper methods to maintain, preserve and protect both the *Earthworks* and the salmon runs, since areas that were previously mown are now off-limits and site lines are reduced by the re-vegetated riparian corridor.

The Earthworks provides a vision for our regional landscape, and a template for the national discussions about how to fuse

natural and cultural systems in order to make place – from Mount Vernon to the Mississippi Delta. As we reconsider our urban infrastructure systems and celebrate the Earthworks anniversary, we invite you to take a moment to imagine another future for infrastructure, art and design – it is a world that Bayer showed us 25 years ago by dissolving the "barriers" between art and infrastructure to create places that are humane, functional and aesthetically enriching for our everyday experience.

If we could get there, Herbert would smile.

Cheryl dos Remédios is the City of Kent's Visual Arts nator, a practicing public artist and Grass Routes organizer. Brice Maryman is a landscape and urban designer at SvR Design in Seattle, who also serves on the board of the Cultural Landscape Foundation.

i Herbert Bayer_www.en.wikipedia.org/wiki/Herbert_Bayer

Join us in celebrating the Earthworks 25th Anniversary on Saturday, September 8. Choreographer Alex Martin is presenting contemporary dance, and landscape designer Brice Maryman is installing Chromatic Levee at Earthworks Park in Kent, Washington. Additional performances, speakers and exhibits are being scheduled. For a full schedule of events, please visit www.KentArts.org.

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Ice Cave: The Timberline Lodge's New Entryway / Brennan Conaway

The Timberline Lodge is getting a new entryway to protect visitors from the heavy weather atop Mount Hood, and if Peter Nylen and Ean Eldred could build it any way they wanted, they'd sculpt it from ice during the winter's first snow and watch it melt away the following spring.



With its pale palette of white panels and aluminum, the entry feels like the interior of a snow cave or the cathedral-like space within a glacier crevasse.

"I've always thought that, in many ways, the pinnacle of architecture is the igloo," says Eldred. "As far as a structure's relationship to its landscape, culture and resources, the igloo is the definition of elegance." Oregon building codes don't recognize frozen water as a structural element, of course, so Nylen and Eldred turned to more permanent materials for their seasonal structure, which needs to withstand snow-and wind-loads during the winter but also be easily disassembled and stored away for the summer.

The front entrance to the Timberline Lodge is on the inside corner of the building's two wings. In winter, it acts as a giant scoop, collecting snowdrifts 10 feet high or more. To shelter people as they ascend the stairs to the lodge, Nylen and Eldred designed a series of modular parabolic arches cut from aluminum plate and skinned with polycarbonate panels.



The sections are 20 feet across, 20 feet tall and when all 11 are bolted together they'll create an entryway that tunnels out almost 40 feet from the lodge's front door. With its pale palette of white panels and aluminum, the entry feels like the interior of a snow cave or the cathedral-like space within a glacier crevasse.

"We conceived of the new entry as a temporary snowdrift, piled against the massive masonry facade of the Lodge," say the designers, who are collectively known as NE Works. "The entry appears and disappears with the snowfall each season, echoing the cyclical forces of accumulation and erosion. Like a snow cave, it feels carved away."

The entry not only seems to be carved into sunlight during the day, and at night it will the snowbank, but in practice it will be a form emit a warm glow – a welcome beacon which the snow collects around; and as the snow on a dark and snowy night atop Mount Hood. compacts and goes through cycles of melting Brennan Conaway is a founding member of Nowhere and refreezing, it's likely to pull away from the Gallery, a furniture designer with 1X1 Design and a structure, creating a gap between the snowbank creator of public artworks. He lives in Portland. For more and the exterior surface. The designers might have from Brennan, visit www.nowheregallery.org and the best of both worlds, a snow tunnel that www.onebyonedesign.net passes building inspection.

The formal design process began with a perfect **1** Timberline Lodge_www.timberlinelodge.com parabola, which Nylen and Eldred sculpted away, melting the sides until they undulated like the scalloped overhang of an eroded iceberg or the zaftig shape of an after-theparty ice sculpture.



The designers wanted to keep everything as simple as possible, so the project has been an exercise in paring down the various elements. The sides originally had metal base plates, which were edited out, bringing the polycarbonate panels all the way to the ground. The door in the original plans was removed in favor of a heated walkway to control ice and snow underfoot. Nylen and Eldred wanted the entry to glow like a lantern and they found a simple solution: a light tube suspended at the apex of the arches will illuminate the structure's parabolic curve to evenly diffuse the light.

By using translucent materials, the designers assure that the entry will be suffused with





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I'm Going to Have to Drink This: The Surreal Environmentalist Environments of Susan Robb / Matthew Richter

I'm going to have to drink this one day," Susan realized as she poured yet another batch of acetic acid, chlorquinol, selenium oxide and aminophenol down the darkroom drain and back into Seattle's water supply.

And that was the last time this prolific photographer worked in black and white photography. It was 1999, and to her it was a simple, straightforward and obvious choice.

Eight years later, Susan the environmentalist Are they huge black penises, beckoning and hunting the sunbathers global warming." It's about "Seattle's highis talking about building an artificial environon the lawn? Are they severed fallopian tubes drifting in liquid tech industry with its very close proximity to ment for itinerant polar bears, whose ice is wind? Are they representative of humanity's unending ability to create rain forests, desert and glacial mountains. vanishing due to industrially (and individually) continuous streams of garbage? No. They're tubes of polypropylene, "It's about the "high CO2-dischargers that have driven global warming. Susan the artist is staked to the ground, rising and falling with the sun and the wind. 'sponsored' a global climate crisis, commenttalking about creating a new sculpture called The simplicity and beauty of the objects themselves proscribes all ing on a common corporate gesture of buying Sea Ice Lifeboat – a (roughly) 20-by-40-foot attempts to anthropomorphize or overanalyze them. indulgences for misdeeds to humanity raft, floating in the waters north of the through sponsorship." Bearing Sea (or in Elliot Bay near the In talking about her own work, Susan speaks of hybridizations, kaleidoscopic intersections of ideas and images, and an idealized Sculpture Park), made of old oil barrels welded At least, that's how Susan writes officially about symbiotic relationship between technology, industry and nature. together, covered in a skin of clear plastic the project. In person, over a glass or two of As a human, she is someone deeply moved by the fact that as humans bottles (and real snow and ice). The topography Lillet Blanc, however, she seems shocked that "we are environment destroyers – I mean, isn't that what 'human' created by the plastic bottles either resembles I don't get the "Why" on my own. I'm smart, means?" As an artist, she positions herself to respond to these environ an SUV rising some 15 feet out of the water, but Susan's smarter, and she often has to look or spells out the text "YOU AND ME" in plastic at me with a wide-eyed, head-shaking, mental issues the way a funhouse mirror responds to the reality standing before it: twisted through the logic and intelligence of natural bottles (or, perhaps, another icon of high-CO2 "Duh," as she explains things that are, to her, systems, through the technologies available to modern humanity emissions). There is a wild polar bear pacing painfully obvious. and through the personal brilliance that inspires the unspoken (but back and forth on the surface. "Why? Because," Susan explains, "I would do still heard), "Well duh... what else are you going to do with a sun, Sea Ice Lifeboat is what the state of Alaska's some wind and a bunch of garbage bags?

Department of Habitat Restoration might create if the department were headed by David Lynch (on acid). It's Andrea Zittel's Pocket *Property* (a 50-ton floating concrete deserted island, complete with a shack, a sun deck and a garden) re-imagined for polar bears instead of sunbathers. But it's also got a hint of Joseph Beuys's 7000 Oaks (in which the German artist planted 7000 oak trees in Kassel over the course of five years). And while land artist Alan Sonfist brought nature back into the urban environment in his *Time Landscape* (a pre-colonial forest in the middle of Greenwich Village), Susan is taking aggressively non-natural, non-indigenous materials out into the natural environment to make her statement.



I rarely ask Susan, "Why?" I prefer to keep asking, "What?," and hope to arrive at a detailed enough mental image of the thing to explain the "Why" on its own. The "Why" here is about "underscoring the disastrous effects of

that for a bear. I would make that and give it to a bear.'

At the same time that Susan is developing Sea Ice Lifeboat, she's playing with long tubes of black polypropylene. Three times in the past few months, she has installed Warmth (or, Giant Black Toobs) on the large field outside the conservatory at Seattle's Volunteer Park. The stunning piece consists of a number (14 in the last iteration) of 30-foot black tubes of thin polypropylene (the material from which garbage bags are made), filled with air, tied off at one end and staked to the ground at the other end. As the sun heats the black tubes, the air inside expands, and the wind takes them through a lurching, slow-paced danse macabre.

These installations are not sponsored by the So-and-So Foundation; they are not permitted by the parks department; they are not official, not sanctioned. They are there, says Susan, to spark the question, "Why is this here? What is this doing?"

Matthew Richter is the founder and former executive director of Consolidated Works. He is the former performance editor of The Stranger, and continues to publish sporadically on the subjects of art and culture. He is currently designing furniture under the moniker **xom**. You can see his work at www.xomonline.com.

Images courtesy of Susan Robb



Sea Ice Lifeboat





at the table

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FEATURE 🚯 🍪 🚺

THE MORAL OBLIGATION TO BE INTELLIGENT

The desired goal of the human endeavor is to optimize conditions for human development over time. This is largely what our founder, Ove Arup, meant when he said that we must pursue our work with a humanitarian attitude.

Gary Lawrence

Within Arup, the Global Leader for Sustainable Urban Development, it is my responsibility to create the circumstances in which great design can unfold. Sustainability has always been a critical circumstance for successful design. It becomes problematic when we isolate it, view it as an end in itself or define it too narrowly as an "environmental" issue.

There are probably as many different definitions of sustainability as there are people engaged in conversations about sustainability. Like democracy, most people believe the idea of sustainability is good, but as an abstraction its meaning lies in the eye of the beholder.

Remembering that sustainability is a means, not an end in itself, provides a way past this problem of ambiguity. The desired goal of the human endeavor is to optimize conditions for human development over time. This is largely what our founder, Ove Arup, meant when he said that we must pursue our work with a humanitarian attitude. In pursuit of optimization, sustainability becomes the analytical and decision-making framework that best allows us to move confidently toward that goal.

When taken seriously, sustainability requires us to address issues in depth and breadth, at their intersections and over time. Within this framework, sustainability becomes the most robust way to anticipate and manage risk, to seize opportunities, ensure return on investment and to communicate with disparate stakeholders about the relationship between actions and outcomes. It also prevents any single interest from capturing the idea of sustainability and holding it hostage, impeding progress toward a broader common good.

For example, any regimen about sustainability that puts issues of environment ahead of issues of human need is not likely to have political viability. During a trip to Australia last year, I was invited to speak at the Cairns Green Development Forum. The Mayor of Cairns struggled against ecological efforts to prevent pollution of the coastline, believing them a barrier to economic development. His concerns for economic development lacked the sustainability analysis approach that addressed issues of breadth, intersections and time. The Mayor and I, together with staff from Arup's Cairns office, worked through a conversation of how deforestation upland of Cairns, combined with chemical runoff from subsidized agricultural activity and a lack of stormwater management facilities in the lowlands, were feeding a population of algae blooms that was moving ever closer to the portion of the Great Barrier Reef off Cairns. The Great Barrier Reef is the single most important source of the community's longterm wealth. Once the algae reached the reef it would kill the coral and dramatically reduce the underpinning of Cairns' tourist economy. The Mayor's important view that the economic health of the community had to be maintained was, in fact, being threatened by his narrow understanding of the combination of issues that would ultimately cause the demise of Cairns' economy.

I see a similar conflict of interests in the development of many urban building projects. Too often the designers of the built environment create the stage upon which human life gets played out without actually understanding the nature of the play. Instead we should be focusing much more clearly on defining the future we are trying to create. This can only be done through constant communication with the users of the built environment. If we are in the business of optimizing conditions for human development over time we should be designing things that actually make people happier while creating more utility and being less burdensome on natural resources and human health.

There are probably as many different definitions of sustainability as there are people engaged in conversations about sustainability. Like democracy, most people believe the idea of sustainability is good, but as an abstraction its meaning lies in the eye of the beholder.



Two of our greatest enemies in the struggle to incorporate sustainability as a framework are conventional wisdom and customary belief – ours, our clients' and their stakeholders'. Conventional wisdom is a societal issue. For instance, we conventionally think the sun sets rather than recognizing that our spot on the earth is rotating away from the sun. Customary belief is the professional equivalent of conventional wisdom. It is caused by many factors, one of the most important being the desire to reduce risk. It always seems to be less risky in the near-term to continue doing things the way we always have rather than trying something new. Yet this method may create the most significant risk to the future of society.

For example, customary belief within many professions and among representatives of the development community is, or at least has been, that a sustainable, integrated design approach slows down projects and increases first costs without the compensation of added value. As a result there has been little interest among them in pursuing a sustainable approach. In aggregate, this series of discrete decisions results in communities that are illequipped to address water and energy limitations, thus reducing their livability and economic potential in the long-term. One of our great challenges is the creation of authentic and compelling business cases for a more sustainable approach to buildings and infrastructure. Without the economic lever, customary belief is difficult to dislodge.

This scenario raises the question of the role of the design community in optimizing conditions for human development over time. We have an opportunity to challenge our clients, not to assume more risk, but to understand how to manage their risks in ways that don't interfere with profitability. We have a responsibility to:

- Help our clients construct better business cases
- Work with government leaders to facilitate regulatory environments that don't increase the cost of a sustainable approach
- Help the real estate industry understand how to market sustainability for future users of that building

The three articles that follow examine some of these questions from various viewpoints.

Gary Lawrence is Arup's Urban Strategy Leader, providing thought leadership for strategic urban development throughout the firm's 86 global offices. He is the driving force behind Arup's vision to create communities of the present and future that address human need and environmental limitations. Gary's roots are planted in the Pacific Northwest. As Redmond City Manager, Gary turned the first shovel of dirt on the development of Microsoft's campus, then as Planning Director for the City of Seattle, he went on to lead development of the first municipal sustainabilityfocused comprehensive plan in the world: Toward a Sustainable Seattle. National and international recognition of his work soon followed and Gary has subsequently served as advisor to the Clinton Administration's Council on Sustainable Development, the UN's Habitat II, the US Agency for International Development, the Brazilian President's Office, the British Prime Minister's Office, the European Academy for the Urban Environment in Berlin, and the Office of Economic and Community Development (OECD) on matters of sustainable development and environmental policu.

Arup is a firm of 9000 engineers, designers, planners and scientists who have come together to realize their founder's vision of shaping a better world for the citizens of today and tomorrow. Arup's influence extends throughout the world with 86 offices in 37 countries on five continents.

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FEATURE () 🛞 🕢

A TIMELESS ARCHITECTURAL VISION: KANSAI AIRPORT

The challenge of designing Kansai Airport, perched on an aritificial island in Japan's Osaka Bay, required architect Renzo Piano and the design team to be audacious. Together they produced a design with an undulating roof and huge "wingspan" stretching nearly 700 meters from either side of the main building.

The question then became, "Was the project buildable and would it stand the tests that Nature would throw at it?" Kate Fairweather

Key to Piano's conviction that his design was achievable, and to his success in winning the commission was the confident, collaborative approach he developed with a team of experts from the global design and engineering firm, Arup. Philip Dilley, Arup's European Chair remembers it clearly: "The challenge of getting the design agreed by the Japanese authorities was huge, as the Japanese fire codes would never allow a single building this large; so lots of our work was based on first principles," he explains. "And the benefits were huge. Engineers and architects spoke the same language from the start, and the quality of original and collective thinking meant that the overall design was so much more than the sum of its parts."

Aesthetic, practical, economic and technical considerations combined powerfully in the design engineering of the Kansai main terminal building. Piano's elegant, flowing design was driven by his belief that the building itself, the refraction of light through it and even the movement of air within it should reflect passengers' movement from landside to airside, with a visual connection between the two.

Inspired by the concept of flow, Arup's team proposed that the building's internal environment should be controlled as a single macroclimate, in one stroke eliminating the need for conventional air ducts and reducing the roof load – an important consideration in earthquake-prone Japan. Sculptural air supply nozzles blow air against curved ceiling elements specially designed to cause the air to travel an extraordinary 80 meters toward airside, providing a level of general comfort across the entire space. Separate local systems set up micro-climates for areas requiring greater control, such as in shops and at the check-in desks. The air movement is discernable to passengers, giving the space a semi-outside feel, the overall effect of which subtly reinforces the sense of flow toward the airside, as Piano wanted.

Piano's competition model showed a terminal building with unmistakable huge wings to either side. No mere ornament, they would create the necessary perimeter to accommodate 41 airplane bays and support the passenger moving system, shuttling people along the wings to and from departure and arrival gates. The need for sightlines from the control tower to planes precluded an extruded geometry for the wings, which is why they swoop down and away from the main terminal building.

Piano envisaged a building that was easy and intuitive to navigate; and the result is a huge four-story canyon, extending the whole 300-meter length of the main terminal building, lit entirely by daylight. Here, the close teamwork of the architect and Arup's mechanical engineers paid dividends. The canyon's glass ceiling was intended to allow natural light to illuminate a bamboo grove and other plantings 26 meters below on the canyon floor. The choice of glass housings for the elevators, and glass walls on either side and along the concourse corridors complements the airy brightness and enhances the passenger experience. The practical benefit is a relatively low energy requirement in comparison with artificial lighting.

> In the main terminal building, the open-air ducts that allow the air movement also act as light-reflecting panels suspended between the long arch trusses supporting the roof of the fourth-floor international departures area. This reflected lighting reinforces the direction of passenger movement, as the panels connect the canyon to the wings. At the far side a huge glass wall



Far left: Aerial view of Kansai Airport during reclamation.

Left: Fully welded connections give the trusses a soft, fluid appearance. Jets direct air towards the open roof ducts. © Y. Kinumaki

Opposite page: Landslide entrance to the main terminal building. © Kazuo Natori Below: Bow trusses running the height of the building's glazed end walls were designed with sliding joints to allow the roof to move independently in the event of an earthquake. © Kazuo Natori





faces the aircraft stands, so when passengers look toward airside the full-length curved façade reveals aircraft and the runway beyond. Even the roof shape itself suggests skyward movement.

The roof design has an elegant curved geometry, which in turn is determined by the line of sight needed by the control tower. To avoid the complexity and expense associated with three-dimensional curved construction, the Arup team used 'toroidal geometry,' rotating a constant two-dimensional shape around a large inclined circle to create the curved design. This means that each of the cladding panels and steel components repeat throughout the length of the building, allowing standardization of components, therefore, easing construction and lowering costs.

The site itself raised huge issues for Arup's structural engineers and seismic experts. The terminal building needed to cope with the predicted sinking each year of the manmade island, and the possibility of earthquakes. The team proposed a 'jack-up system' to raise or lower individual columns to cope with differential settlement. This innovative settlement correction system has proved an unqualified success, coping with a differential of up to 300 millimetres in the first two years alone.

Having met the exacting standards of Japan's seismic building regulators, Kansai Airport faced its first test within a year of opening. The Kobe earthquake struck in January 1995, measuring 7.2 on the Richter scale, and its epicentre was just 20 kilometers away from the airport. The sliding joints in the building's construction were entirely successful in protecting the terminal building and its occupants from

the earthquake. Not only was the main building unscathed, but the cladding and the glass windows also remained intact. Just three years later, in 1998, the building survived a typhoon with wind speeds of up to 200 kilometers per hour and three-meter storm surges.

Over a decade has passed since Kansai Airport's opening in 1994, and Renzo Piano's main terminal building has proved a success both aesthetically and as the simple, elegant complement to the movement of passengers themselves through the airport of the architect's original vision.

One recent passenger comments: "It's a beautiful building and never appears crowded or claustrophobic, even when it's stuffed full of people." Admiring its "light airiness," another passenger also appreciates the practicalities: "I find it really hard to get lost there as there's only left or right. It's almost foolproof."

Kansai Airport was one of ten structures given the Civil Engineering Monument of the Millennium award by the American Society of Civil Engineers on April 19, 2001.

Kate Fairweather is a UK-based writer with a particular interest in design, engineering and architecture.

i Kansai International Airport_www.wikitravel.org/en/Kansai_International_Airport, Renzo Piano_www.rpbw.r.ui-pro.com, Renzo Piano_www.greatbuildings.com/architects/Renzo_Piano.html

"Engineers and architects spoke the same language from the start, and the quality of original and collective thinking meant that the overall design was so much more than

> Workers during construction of Kansai Airport. © Arup





Toroidal (rotating) geometry for the terminal wing ends. This generates much repetition avoiding excessive fabrication costs associated with double-curved shapes. © RPBW

The shape of the roof was determined by the flow of air to create the 'macro' environmental control within the building. © RPBW

FEATURE () 🛞 🚯

"If, as I believe, sustainability is a political idea with technical attributes, what ought designers be doing within the body politic to help make communities more sustainable? For appropriate progress to occur, civil society – individuals and their institutions – need be able to answer the following questions:

Who are we now? Who is it that we need and want to become? What seems the most likely path? How do we begin? As individual and professional members of civil society with special knowledge about the built environment, what are the obligations of designers?" – Gary Lawrence



Diane Sugimura

Perhaps it was on purpose that a non-designer was asked to respond to the question: "What role should designers and design have in remaking the fabric of a city?" My initial response is that it can make all the difference in the world, but design alone is not the answer. It's more than creating great buildings and great spaces. It's about maintaining and cultivating great neighborhoods. With the tremendous growth pressures, we cannot afford to lose sight of this. This is perhaps the greatest challenge to architects and developers: create neighborhoods that evolve and grow as real places for people, not just collections of buildings.

I would like to rephrase the question. Rather than "remaking the fabric of the city," I would change that to creating the city we want to be/need to be to truly be a sustainable city of the 21st century. We need to do a better job of engaging a broader, more diverse population of the city in a dialogue about how we can become *that* city, creating a better place for current and future generations to live. What we need to accomplish is not something that planners in City Hall dream-up, and not something that a certain segment of the population wants to hold onto from times gone-by. It is something that a much broader "we" defines and will work to achieve.

This is not to suggest that process and dialogue always lead to better solutions – they don't. This does suggest that we in government must work harder to engage the public, including the design community, at those times and in ways that are most productive. Planners need to act as interpreters of community vision and we need to bring our professional expertise to the table. As the city grows and neighborhoods face increasingly complex challenges, we cannot simply regurgitate what we hear, but we must develop a vision based on community aspirations.

We Are Growing, We Are Changing ...

This is an exciting time in Seattle. We are growing, we are changing; we will keep growing and changing. To be labeled a "static" city, as I recently read, is a real concern. I hope it isn't true. Growth and change can be good, but it certainly isn't automatically "good." And, development is happening so quickly that more and more people are "fearing" the uncertain future.

For anyone who has worked in land use as long as I have, we've eard all the stories about change. To some, change i "I remember when I could walk across Leary with my eyes closed. "Why anyone would want to do that is an entirely different question, but it was clear that change was a problem for this gentleman. I also remember the meeting where someone told me that "Man was meant to live on the earth" and not close together. Not sure where Woman was meant to live, but the statement was clear that multifamily development was bad in that person's mind. In those earlier decades, the community was most concerned about multifamily v. single family, and then it was increases in height and density and the accompanying traffic. Now the concerns are more amorphous – often described as the "loss of neighborhood character."



So, here we are in 2007. This is a different era, with a new reality - global warming. Our population is actually similar in numbers to 1960, but with a significant increase in the number of households. The demand continues for more housing and more housing options. We, like the rest of King County. have many fewer households with children. Are you designing that much smaller, more efficient but very functional housing unit? We are an aging population and we will be for many years to come, but young people are also attracted to the area. We are much more diverse as a population than in 1960. Renters now outnumber home-owners, yet I still hear neighborhood folks express concern about "renters" in their neighborhood. Single family zoning is sacrosanct according to the City's Comprehensive Plan. And the need for more affordable housing has almost reached crisis proportions.

People are often surprised to hear that 65 percent of the city is zoned for single family. Another 13 percent is zoned for industrial and major institution. Our Urban Centers and Villages - less than 18 percent of the city - are expected to accommodate the majority of our household and employment growth in the coming years. How do we accomplish this?

Designers, working with government and the legal community, have a major role here. We must develop alternative models for housing to accommodate households of the future. while addressing the very real needs of regional growth, control of sprawl and, of course, affordability. This must include new models. of home-ownership. As an example, can the intense public reaction to detached accessory dwelling units be mitigated through a careful design solution? How do we have a thoughtful communication of concepts in non-architectural language? This latter point is crucial and often overlooked. We can easily dismiss the concerns of the public as backward-thinking but we do so at our own peril. Elected officials listen, as they should. We, especially architects and planners, must learn to talk with our communities in their language, on their terms.



Kiosk, Melbourne, Australia Photo: Bill LaPatra

Above: Melbourne's laneways provide pedestrian connections and enhance the city's vitality Photo: Diane Sugimuro



How can we, by working together, be more successful at achieving that great sustainable 21^{st} -century city we envision – a city for many, not just the young, the educated, the wealthy.

> , haavn Street, Copenhagen Photo: Bill LaPatra

Design and Our Communities How to Celebrate Our Neighborhoods?

There are a number of areas where a serious conversation needs to take place between the City and the design community, if we are to create the future city we prefer. As more development is taking place, we are increasingly hearing concerns about the generic nature of new development – change in scale and texture, the loss of local, small one-of-a-kind businesses, arts organizations ...the ones that help distinguish the neighborhood and the city from every or any other "city USA."

 How can we preserve not only historically significant buildings, but also some of the special "character buildings," that help retain a neighborhood's uniqueness?

• How can we energize our streetfronts, whether developed with several small projects or with a large, full bloc front development, in ways that are interesting and distinctive?

• Are there ways to design some creative/ flexible spaces so that small, local businesses might be able to continue to function when new development comes in?

Learning from Other Cities' Successes

On a recent trip to Melbourne, I saw the results of successful engagement between City officials and the design community. The street furniture was wonderful. The very wide sidewalks, all paved in the same Bluestone, were great. Flower, fruit and paper vendors' kiosks were a welcome addition to the sidewalks. But perhaps more importantly, I was struck by the huge crowds of people walking around downtown. How do we make that happen in Seattle? They close some of their downtown streets to cars during lunch time, so people can walk around more easily and the huge crowds can be accommodated.

- How can we design more storefronts that encourage businesses to spill-out onto the sidewalk?
- How can we celebrate our alleys in Seattle? These can be delightfully intimate oases of activity.
- How can we create more people places, more open space and spots of greenery with art, water, playfulness? When we were talking about the possibility of an open space impact fee, developers/ property owners told us they would rather provide them on private property rather than rely on the City to maintain "their" public space. So, let's take them up on that idea!
- Can we design some simple, attractive sidewalk kiosks that can just be locked up at night? Where are key locations where they could help enliven the streets, to encourage people to walk in and through certain parts of town?
- Can we re-design the streetfronts of our older dark, bank buildings to make them more people-friendly along the street?
- Can we go to Olympia and convince the State Liquor Control Board to allow our eateries to spill out more causally along the sidewalk and encourage the age-old indulgence of people-watching?

Some Parting Thoughts

What we need are more wonderfully designed buildings, open spaces, people places, family-friendly places, walking places. We need places that say "welcome" to a diversity of people. We have so much water, but few great waterfront places. As we embark on an update of our Shoreline Master Plan, what is most important in our waterfront areas: the types of uses allowed or how they are designed and relate to the water and to people? Do we want view corridors to the water or promenades along the water?

The design community can be a great ally to the City in addressing these questions. You are uniquely qualified to be advocates. This is not just a question of designing better buildings for your clients, but advocating for better design possibilities. If you truly believe that regulations are a hindrance to good design then tell us how to change those regulations while preventing the really egregious projects from happening. If it's not true, then show us what you could do in the context of those regulations.

And yes, think outside the building envelope. The kiosk, café and open space do not materialize just because we think they are good ideas. For better or worse, there is a complicated system of regulations that govern these. Those regulations should be changed and government must be bolder about this. But we need your help to ensure that those changes - and many others addressing building form, height, etc. do not result in unintended consequences.

We have great neighborhoods. Let's help them stay unique, while still growing and changing in vibrant ways - recognizing the past, but adding new dimensions to the neighborhood feel.

How do we design our street fronts and our buildings to entice more people to be outdoors. Seattle has a mild (albeit somewhat damp!) climate. If Copenhagen can extend its outdoor time to 9¹/₂ months a year, so can Seattle. They use heaters and blankets at each chair...so could we.

You work with developers and property owners. You work with business people and community organizations. You work with the various City departments. Talk with us, How can we, by working together, be more successful at achieving that great sustainable 21st -century city we envision - a city for many, not just the young, the educated, the wealthy Let's get out of our cars, walk around, look around! What do we experience? How can it be better?

Diane Sugimura is the director of the Seattle Department of Planning and Development, which is responsible for long-range and comprehensive planning, policy and code development, plan review, inspections and enforcement. She is a member of Urban Land Institute (ULI), Seattle's Executive Committee, and the University of Washington's Professional Council for the Department of Urban Design and Planning.

i Seattle Department of Planning and Development _www.seattle.gov/dpd/, Urban Land Institute (ULI) _www.uli.org//AM/Template.cfm?Sect

FEATURE () 🛞 🚯

CONVERSATION WITH NBBJ



Gary Lawrence

PARTICIPANTS:

James O. Jonassen, FAIA, MRAIC, Managing Partner Robert Bruckner, AIA, Principal Margaret Montgomery, AIA, LEED® AP, Principal Duncan Griffin, RA, LEED® AP, Senior Associate



GARY / For some time now I've been invited by architects and other design professionals to stimulate a discussion about the role of the design community in creating a more sustainable future for our cities and the people who dwell in them.

The key advantage we have today is that our business context has changed. Owners of buildings and infrastructure are being pressured, either directly or indirectly, by their stakeholders to take a more sustainable approach. In the design profession, we are in the best position possible to help our clients succeed in the midst of this change. It is, however, going to take some work. Two of our greatest enemies in the struggle to incorporate sustainability are conventional wisdom and customary belief - ours, our clients' and their stakeholders'. NBBJ is an international firm with projects around the world. How does a firm such as yours, in a position to wield great influence, embrace and manage the change necessary to set us on a path toward a more sustainable future?

JAMES / Our clients to a large extent understand the importance of sustainability just as well as we do. Our responsibility is to help them find the way to achieve it. The time for drum beating is past. We need solutions. From a moral perspective, sustainability becomes an obligation when the problem is no longer surrounded by confusion and ambiguity. 2030 [the AIA initiative that all buildings designed |by the year 2030 will be carbon neutral] has brought clarity to the carbon issue for the built environment. We need a similarly clear statement about water, then for the next problem and so on.

We also have an obligation to reduce the waste in what we do. It's been reasonably well documented that waste in the design and construction industry runs between 30 and 60 percent. Our productivity has gone nowhere when other decent-sized industries are showing remarkable progress. The design/construction industry has not kept pace. The waste generated would fund both the eradication of world poverty and the 2030 initiative.

ROBERT / Moreover, it would pay for the content need. Creating a sustainable environment through our work would pay for itself.

GARY / What kinds of waste? MARGARET / It's more than just coming up with technical answers to specific problems. We must change how we look at problems so JAMES / Human time. Reduncancy in effort. Waste in materials, that we are asking the right questions. We need to focus on how we live such as redoing steel fabrication, cutting pipes and sheet metal to fit every day. Where we sit at our desks, how we get to work. What on a job site, errors and broken materials in skins. we're doing as human beings in our lives. Those seemingly small and individualistic things can be just as powerful in creating a culture DUNCAN / There's also the loss of intelligence that happens in of sustainability as some organizational issues. We have to shift our the hand-off between disciplines in the building design and viewpoint and accept that we're not above and in control; we're within the system on the planet. It's a concept we have to layer in and construction field. Often synergies and savings identified in the design intent aren't realized in construction. absorb a bit at a time because it's huge to get your arms around.

GARY / Why do you think that is?

JAMES / Because the industry is highly siloed. Individual components of our industry are optimized for success as it benefits their own business specialty, not the project.

GARY / Arup has its own silo problems that we struggle with every day. As client expectations change there's drive to eliminate waste in all of its guises. With a large firm like NBBJ, has the internal struggle against silos been part of what you're dealing with?

JAMES / Sure. We've been on a pathway toward integrated design for 15 or 20 years now and it's still a struggle to achieve. We try to bring all the disciplines and perspectives to bear on a project at the right time and in the right way, but it's still imperfect. Integrated delivery, the ability to incorporate all project delivery trades and skills, is embryonic and demands a real cultural shift for all of us in the industry.

GARY / You're constantly bringing in new people in various design fields to try to address these issues in a substantial way, within the constraints of the marketplace. How do you create, maintain and manage a culture where sustainability is common practice as opposed to best practice?

JAMES / First we've got to own up that we're not there yet. What we can say is that regardless of what the leadership of any firm does JAMES / A tool in building culture is metrics. We've just begun to these days, the young people joining us come with a set of values and require that all our projects be measured against a measurement standard (LEED), to set a baseline for improvement. At the same time a great quest for involvement. There's a great bubbling up of pressure in any firm to change, to move towards a culture where we're looking to discover other metrics for industries. We're joining sustainability is common practice. Leaders don't have to with the Port of Seattle and a handful of other companiesto begin benchmarking their facility operations against sustainable criteria. motivate staff - they just need to provide some direction to make them effective. The issues we're working on are twofold. First, GARY / One of the metrics is profitability. We've seen some large we must transform the industry in terms of the way that projects are designed and constructed, addressing that 30 to 60 percent, so firms get left behind because they didn't pay attention to the that we can help our clients use those savings in a constructive way. event horizons and weren't prepared. You were being pushed from Second, we must find the viable answers within our own firm for below, but, at least in some of the organizations I've been meeting these challenges. It's a struggle. We're encouraging, pushing, involved in, it can take quite a lot of energy to push the top of the pulling up and down the firm to make that happen. organization into an alternative path.

Above, left to right, Telenor Headquarters, Norway: A dining area in the South Boulevard provides views of Telenor Plaza and the Fjord. Photo: Christian Richters; From the north looking south toward Telenor rrs; An aerial view of a café located in one of the office wings, shows the integration of form and functional meeting space. Photos: Tim Griffith

DUNCAN / Moving into our new offices, for me at least, provides a tangible reality. The building system is designed so that when the green light goes on you can open the window. Having fresh air, literally just breathing fresh air from outside, makes you think differently about where you are, where you fit into this thing. It's not a sort of hermetic isolation. It's engagement. And that's quite exciting.

ROBERT / There is another shift in our culture. We've always been enormously collaborative, critical about our own work. But the content of the criticism is changing, from form and composition to the environment, the economy and society. This culture at NBBJ has always been fuelled by the youngest, the brightest and the most recent, challenging assumptions.

> "We're trying to raise awareness of this new way of contracting, of sharing risk and reward, an integrated approach that aligns economic incentives. We're pushing this approach hard and investing a lot to change in the industry to this leaner more effective way of delivering projects."

JAMES / Some of the people in this room would say, "You can't imagine how much pressure that would take!" A lot of things require drip torture to get them to tipping point. Eventually you reach a point where your knowledge of the situation changes. Most recently for us it was on the carbon issue.

Left: Telenor Headquarters, Norway. The headquarters has two main buildings that wrap around an elliptical plaza, in the center of the plaza is the Telenor Learning Center. Photo: Tim Griffith



Above: Design concept for the Bill and Melinda Gates Foundation, view from Mercer looking south of Phase 1. Image courtesy of NBBJ

Above and right: Telenor Headquarters, Norway. From the North Boulevard looking across Telenor Plaza toward the South Boulevard. Four office winas branch off each of the boulevards. Each wina has two entrances and a shared atrium. Photos: Tim Griffith

"What is important to you personally is actually important to the profession and important to the world. This is all about life on earth. It's the only one we have. It's about the future that we're making.'

> **ROBERT** / Our clients are stewards of the environment, as we are. We both need to be profitable in order to grow, to have influence and to reward effort.

> **DUNCAN** / Our ultimate goal as a practice is to help our clients transform their enterprises. Whenever I speak to a client about sustainability in terms of, "What will make your business sustain itself, your people sustain themselves, the people around you, the community you serve?" - these things aren't necessarily choices. It's not, "Choose sustainability or be profitable." These elements all come together toward the long-term success of our client.

> GARY / Is the education system providing the human resource you need to move beyond moral obligation into delivery of outcomes. Is the breadth available? It's difficult to create a renaissance person in everybody coming out of school. Are you considering bringing other kinds of people into the firm?

> JAMES / Indeed, that's what we think integrated design is all about. A breadth of perspectives. Where do we find those? Some of the most exciting are ones we've never thought of before. Where is that new mind that can give us perspective that makes that connection straightforward.

> Practicing architects tend to beat up on academics a lot. I think the education system in this country is changing a lot. I participate in the Deans' Forum on the Large Firm Roundtable, looking at how schools and firms can interact to meet the needs of society that aren't being met by architects coming out of school. Some leading deans are pushing that. One of our moral obligations is to support that effort with time and engagement, teaching, funding, participating on policy boards.

> **ROBERT** / The notion of the renaissance man or woman has to give way to the renaissance team. Many of our projects have teams of 10, 15, 20. Not everyone has to be versed in economics, politics, sociology, etc., but the likelihood is increasing that over the next 10 years we will have teams that cover the humanistic range of understanding if we spend more time cracking open books that have words not pictures.

JAMES / We have a continued responsibility to educate ourselves one in the firm. Last week I spent some days in Copenhagen with a team, looking at what Copenhagen is doing to deal with issues of sustainability in an urban planning context. There are some great lessons to be learned. It's a high development time in Copenhagen. They have very limited resources and they're pretty good stewards of them. This week that same team is meeting with politicians in Washington, D.C., talking about lessons learned and trying to find out from our politicians at a national level what programs they have and how our profession can help support their interests. So here's a great education in politics and urban policy and sustainability for a group of 10 people from NBBJ.

GARY / On one level, it's coming up with the right solution. There's another level that precedes that and it's to do with getting the guestions right. What problem are we actually trying to solve? Where does that fit within the design process?

JAMES / Clearly it's high on our list of priorities in our process because we think we're focused on that relatively small percentage of the universe that wants to make a transformational change in what they're about. Whether it's sustainability, individual performance, a healing relationship with patients, a contribution to society, whatever. Therefore we have fewer clients who come to us having already made up their mind about what they want. Regardless of how far along the path they feel they are, we feel it's our role to back up and ask the first question.

DUNCAN / Within the notion of "discover, design, deliver," "discover" is a huge component of the process. In the healthcare practice we've had clients come to us and say, "We need eight Operating Rooms," and then our medical planners go out and work with them and find out that actually they need a new Emergency Department; Operating Rooms weren't the problem.

MARGARET / Typically, when you're studying the goals and you're trying to find the solutions, the sustainable solutions are the ones that best solve those problems. Sustainability is not the goal, but a way of thinking that provides a pathway to the ultimate purpose of the work

GARY / You began by saying that the moral obligation was no longer under question. The burden has been accepted and it's now time for action. What are some of the actions you are undertaking as a firm to move toward fulfillment of that obligation?

MARGARET / Jim alluded to benchmarking all of our projects against the LEED rating system. The objective here is not to pat ourselves on the back or castigate ourselves about what we're doing, but to see where we are, identify the patterns, the gaps and places for improvement. So far the clearest indication is that we're weak in energy performance. Attacking this area with specificity will allow us to identify the strategies to improve, to both set and understand how to achieve the energy targets for each project. Right now we're putting together a series of healthcare charrettes to target reducing the energy footprint of a hospital by a specific amount. A lot of time you hear, "It's a hospital, we can't do that." Well, we're not going to take that any more. We're going to say, "Yes, you can and here are some of the ways we can help you do it."

DUNCAN / This whole effort is in partnership with other design consultants, with contractors, clients and with regulatory officials. If the best way to save energy in a healthcare setting, for example, requires that we change policy, then we're able to develop a fairly clear case for that policy change. It's about engaging across the board with all the stakeholders that can help make it real.

JAMES / One other long-term focus we're addressing is how to foster transformation. Cotter, who wrote the book *Leading Change*, says there are eight steps in transformation. The first is to identify the crisis. The crisis is accepted. The next is to create a vision for the solution and that's what we are trying to do now. That's what understanding energy does for us. There's the focus, the next progress. Then we

create a constituency of champions – well, that's easy around here because the champions are chomping at the bit. Then we create measurable steps that are achievable. We've followed that pattern on every transformation we've done and it works – for us and our clients.

At the beginning I related the transformation of the design and construction industry to sustainability, poverty and health because the elimination of waste in our own industry can help contribute the means to address these issues. One of the specific steps we have taken is to create a model agreement for integrated delivery currently in use on one of our projects. The agreement was developed in cooperation with the client and their attorney. It has been presented to the attorneys at the Large Firm Roundtable, the GSA and other government agencies, and presented at the AIA's national convention. We're trying to raise awareness of this new way of contracting, of sharing risk and reward, an integrated approach that aligns economic incentives. We're pushing this approach hard and investing a lot to change in the industry to this leaner more effective way of delivering projects.

GARY / What do you think it's important for the readers of ARCADE to know on this question of the responsibility to be transformative?

ROBERT / The first thought is a humble one and that is, 'what can we do to help?' Can we do this together? There is no marketing edge to any of this. It's about what we all care most about - life.

MARGARET / One of my fears is that the more mainstream [sustainability] becomes, the more it is perceived as a marketing tool and the less sharing there is. We need to continue to grow and share. Unless we all win, none of us will win.

DUNCAN / I agree. I would say even that it goes from the professional down to the personal. What is important to you personally is actually important to the profession and important to the world. This is all about life on earth. It's the only one we have. It's about the future that we're making.

JAMES / There's another obligation that architects have not fulfilled well for a long time: The obligation to engage politically. A recent issue of Architecture quoted the (then) lead lobbyist for the AIA as saying that architects make really bad political animals because they all have their heads in the clouds. And this is the guy who's representing us! In Copenhagen I realized the architects there, and I think generally in Scandinavia, are very engaged politically. Some of them are politicians, or have been politicians. In the U.S., the only congressman in the 20th century who was an architect was Richard Swett (more recently ambassador to Denmark). What's going on with that? I realize that in my career I have eschewed politics because I felt that it was ineffective and I didn't like the way politicians behaved. But that's because we allowed that because we're not political enough!



Jim Jonassen , Managing f NBBJ's unique studio ulture, developed an ractice and built NBBJ's ractice in Asia. He serves chairman of The Health nd sits on the Executive mmittee of the Large n Roundtable of the nerican Institute of chitects. Jim also teaches University School of n the Practicum Faculty Medicine. t the University of Hawaii

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Robert Bruckner

NBBJ's global work in Science and Education He is an award-winning designer of research healthcare and academ buildings and campuses Robert is currently working with Seattle Children's Hospital Research Institute, UW Medicine and Stanford

Margaret Montgomery promotes sustai and regenerative design at NBBJ. She takes a holistic approach, looking for opportunities to push each project toward a positive outcome for both the human experience and and staff while fulfilling the the ecosystem we inhabit. In this way she ensures an intrinsic link between her work and the sustainable values that guide her life.

Duncan Griffin co

Design Group at NBBJ in 1997. As a design lead fo healthcare facilities, he works closely with client leadership to meet the needs of patients, family He is currently working with the Seattle Cancer Care Alliance and with

Above: The 120,000-sf Learning and Knowledge Center (LKC) at Stanford University School of Medicine will comprise four stories of innovative teaching rooms. Image courtesy of NBB.

> GARY / Back in my Seattle Planning Director days I remember architects being the subject of distress among members of the City who felt that architects were never interested in solving the problem that faced Seattle, but only in securing advocacy for the solution to the problem they saw. From the perspective of the City it was so one-sided. Their view was that the only reason architecture and planning exist is to help people that might not be successful otherwise.

JAMES / Richard Swett coached our team as they went into Washington this week to offer to help politicians through providing information, framing issues and providing back-up data supporting policy proposals. They will listen to your ideas if you show an interest in their success.

ROBERT / Politics is about advocacy. I think we know what the position is and I know there is passion in our industry-what we haven't done is taken that passion to the streets and staved on message. One of the things that might have engendered the comment about heads in the clouds is that we're trained to be elitist. We think about issues on a level that isn't always accessible to those we are advocating for and against. If we were to lean over the fence and say let's talk about this, we're informed, we care about this, we're changing our environment brick by brick - keep the message clear. Our feet are on the ground and our heads are not in the clouds.

Below: Looking across Telenor Plaza toward the North Boulevara Photo: Tim Griffith



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Sustainable Street Lighting: Mindful, Splendid Too / Carlos Inclán

A street-lighting experiment is underway, in my bedroom. Outside, an ugly "cobrahead" (high pressure sodium) light has burned past its reliable lifespan. All night it cycles on and off, intermittently flooding our home with an unflattering "urban" orange light that only vendors can call "golden."



My wife prefers our streetscape when the light flickers off; perhaps because there are so many cobraheads at our intersection objects cast up to four shadows in our living room. As I clock Seattle City Light to see if they noticeand repair the cobrahead, a number of considerations go through my lighting designer's mind.

As more people move into downtown it's important that the streets are as inviting at night as they are during the day. Our current system provides a uniform orange blanket of light that is static for 12 hours at a time, without regard to level of activity or type of neighborhood.

What better time to reconsider the qualities of streetscape lighting: its visual comfort, color rendering, human scale, brightness and contrast, light levels, light trespass, visibility, energy use and maintenance.

Our eyes and brain see differently in darkness - we gradually become more sensitive to blueish light. If the light source can match that sensitivity shift, less energy can yield more visibility. Photometry, used to calculate light levels, lags in its ability to describe nighttime illuminance as it relates to vision. Color quality, glare control, mitigation of trespass and human scale of luminaires all present opportunities for improvement.

My colleagues and I have evaluated a new breed of street-lighting systems in France, the U.K. and Norway. The more desirable of these systems rely on white light that renders all colors well, increasing visibility. Their luminaires are improved in appearance and function. The system we studied in Albi, France, is on a network that dims the street lights in relation to traffic patterns. As an added advantage, this system tailors the spectral power distribution of new ceramic metal halide lamps to match the visual sensitivity shift toward blue. The dimming cycle is so gradual that the public doesn't notice it, even when light output is reduced more than 40 percent late at night. The network also optimizes maintenance.

The light quality and streetscape is remarkably improved and inviting while significantly mitigating environmental impact. As part of a field study team, we have had the opportunity to speak with the inventors and the operators. Proven options now exist to improve street-lighting quality while saving energy and maintenance costs. If Europe leads with these innovations, why can't cites in our region follow?

On average, street lights account for 30 percent of municipal energy use. Light levels are designed to meet - or exceed - highest interaction between vehicles and pedestrians, likely at rush hour. As traffic subsides through the night, our static street lights continue to burn at their brightest.

Additionally, brand new lamps "over-deliver"; a necessity to ensure that they will still illuminate enough as they age.

Service trucks in Seattle look for dying street lights, and can miss a cobrahead if it flickered on before they drive by. The technicians are underutilized; the waste is evident.

Think of the alternative: We can have flattering white street lights that permit good color identification. They can be programmed and dimmed to meet demand: brighter when traffic is most dense, dimmer as the night progresses. If the change is gradual and accompanied by a shift toward blue, observers will likely not notice. This would save 50 percent of the current energy expenditure.

A centralized control system can individually raise light levels for accidents or emergencies. The network can diagnose and even predict failures, schedule maintenance and log repairs. Once a network like this is in place, either through power lines or wirelessly, other services may benefit (WiFi, Modem, Zigbee).

Advances in dimmable ceramic metal halide, LEDs and electrode-less fluorescent lamps make these viable technologies for a network application. We need to evaluate systems that tie street lights into networks to diagnose and control each luminaire in real time.Paris operates a system like this and, with half a million street lights, never has more than one percent of its luminaires needing repair at a given time. The typical repair timeframe is one day. The system even prints work orders inside the service trucks, maximizing efficiency.

The U.S. lags behind Europe in adopting these new technologies, but if a few municipalities demand them, they will come. What if Seattle was the leader?

Carlos Inclán and Denise Fong of Candela and Spencer Bahner of Sparling traveled to Albi, France, in 2006 to research new street light systems, with the goal of introducing similar systems in the Northwest

i Albi Lighting System_www2.cnrs.fr/en/329.htm





The Brightwater Project / Eduardo Calderón

These photographs were taken during the first year of a six-year commission for 4Culture, King County's Cultural Service Agency, to photograph in and around the site of the Brightwater Treatment Plant around the businesses that operated in the area at the time. The in Woodinville, Washington. The plant will serve King and Snohomish

Counties when completed. When these pictures were taken, the construction of the plant had not begun, and the images were taken photographs are now part of the King County Art Collection.







Eduardo Calderón is a Seattle-based photographer whose work has been widely exhibited and is part of numerous collections in the U.S. and abroad. He also makes formal photographs of architecture that have been published extensively, most recently in the books Art + Architecture: The Ebsworth Collection & Residence (William Stout Publishers) and SAM Downtown (published by the Seattle Art Museum). Eduardo is represented in Seattle by Francine Seders Gallery.





*In Step With[®] Kelly Walker / Ron van der Veen

In the musical South Pacific, Rogers and Hammerstein wrote, joyously and memorably, "There is nothin' like a dame." Likewise, there is nothing like ARCADE Magazine's editor, Kelly Walker.

RON / Kelly, not many ARCADE readers know that you actually have a degree in Architecture. Can you tell me about that? $\ensuremath{\textbf{KELLY}}\xspace$ / I studied architecture for the education, not because I wanted to be an architect. Until my late twenties I was focused on being a ballet dancer – in fact, I'm still dancing today after 30 years. In my spare time I studied art history, philosophy and religion at San Francisco Community College; I ultimately decided that architecture encompassed everything I was interested in. Before completing my BArch at CCAC, I worked on the first books to be published by William Stout Publishers; the opportunity to work with Bill on this project was an amazing experience. Since she took on the magazine's literary l also took a class from Pilar Viladas, design leadership in the fall of 2001, I have admired editor for The New York Times Sunday her creativity, hard work and constant sense Magazine, which had a huge influence on my of humor. Recently, I gathered the courage to future direction. Ultimately, I was the only find out more about this elegant ball of one in my undergrad class who petitioned energy. We met at Starbucks on Pier 55. After to write a thesis rather than design a building. keeping me waiting for a good 15 minutes, The dean of our college at the time, David Kelly sheepishly ordered a double-tall-2%-no-Meckel, said, "Well you didn't think we foam latté. The day was warm and bright. expected you to sit at your desk and draw did Kelly was wearing a fabulous white summer vou?" My thesis chair, Mitchell Schwarzer, dress that highlighted her brown skin and also played a big role in shaping my focus.

jet-black "Einstein" hairstyle. We sat down for

a jovial conversation.

RON / Wow, that was very informative. I can't even remember which school of architecture I went to, and here you are spouting off your mentors like you just had coffee with them. But who would you say has done the most to keep you out of practicing architecture?

KELLY / You're talkin' to her.

RON / ARCADE has evolved so much in its quality and influence since you took over as editor. Was there ever a time when you doubted its future?

KELLY / Thank you for the compliment, Ron. That's really nice to hear. There was a time when ARCADE's future was in question. It was fall 2002. I returned to the office from maternity leave to discover that there was a little less than \$300 in the bank. I had just had a baby and moved to a new expensive townhouse rental on Capitol Hill. I was worried. ARCADE's Board of Trustees weighed the options for the future: switch to biannual or annual publication, publish once every couple of years with a bang, or fold. Ultimately they decided that the magazine had too much momentum to let it go. As I recall, you were very relieved, as you were the President of the Board and didn't want the legacy of the magazine folding on your watch.

RON / Oh yeah, I remember those days. The board responded by putting into place the basic structure of what the magazine is today. It was an audacious plan at the time. Other than having nightly panic attacks, I had no doubt it would work. We'll get back to the magazine in a bit, but I have been wondering one thing for a while: Which Northwest architect would you most want to be stuck on a deserted island with?

KELLY / Sort of an out-of-context question, Ron, but Tom Kundig comes immediately to mind, as he seems pretty resourceful and he's so nice. I'm sure he could come up with some kind of sturdy shelter in no time. Gordon Walker also comes to mind. I'm certain he could make fire with a couple of sticks and then prepare three tasty squares over a cool makeshift fire pit – and come to think of it, he's damn resourceful too. I guess Tom and Gordon have that Northwest "rugged individualism" gene in spades.

RON / I don't mean most resourceful...I mean, you know...

KELLY / Oh brother. Let's just say there are a few I wouldn't mind being Swept Away with.

RON / So, that's it? No names? OK, what is your favorite architectural song?

KELLY / Respect the Architect produced by Guru.

RON / A few years back, I wrote a Side Yard article stating that *Brick House* was the best architectural song in rock history. I even did a survey to prepare for the article. Do you think I was wrong?

KELLY / Look, you liked the song because it has lyrics like, "The clothes she wears, the sexy ways, make an old man wish for younger days..."

RON / "She knows she's built and knows how to please, sure enough to knock a man to his knees!!!" As the editor of the premier design magazine in the Northwest, you've had the opportunity to see and form opinions about a lot of architecture around the region. What do you think is the ugliest building in Seattle?

KELLY / Unfortunately there isn't just one. Seattle has such a beautiful natural setting. but the built urban fabric leaves a lot to be desired. That said, after living here now for nearly ten years, I'm happy to say that I can see much good in between a whole lotta bad.

RON / You're being way too PC. Give me a crumb, something...

KELLY / Start with Fountain Court and follow vour nose.

RON / Now we're getting somewhere. Let your hair down a bit. Remember, this is Side Yard! It's supposed to be irreverent. I'd like to talk a bit about the quality of the magazine. Which issue do you think was of the highest quality? Which was the worst? Who was the toughest feature editor to work with and why?

KELLY / My first issue, "The Idea of Regionalism." feature-edited by JM Cava and designed **KELLY** / None of your \$*~>ing business! by Karen Cheng set a precedent with its high-[Those of you who know Kelly intimately are quality content and beautifully restrained familiar with her vocabulary.] design "The Modern Image of Architecture," feature-edited by the prominent art curator **RON** / Okay, simmer down. [Kelly discretely Sheryl Conkelton, was so well done. Sheryl checks her makeup in the store mirror while I tirelessly researched the photographic depictpick up my notebook, which flew on the floor.] ion of modern architecture and culled some For this interview, I was actually hoping to beautiful images and corresponding commentcombine a bit of intelligent journalism with ary. We were really lucky to have her; Hovie some regular smart-ass charm. Your insights Hawk designed that one. have been very thoughtful and engaging, but you've left me with little intrigue, gossip, The issue I found the least interesting is the scandal or discourtesy. Can you end one I didn't work on due to my maternity this with anything at all titillating that might leave: "Image + Identity," feature edited by raise a few eyebrows? Norman Wacker, I don't believe in burning

bridges – at least not anymore – so I won't comment on who was the toughest and why.

RON / Which Issue of ARCADE has been your favorite to work on?

KELLY / That's a really hard question; I've worked on 26 issues. I guess I have to cite my first experience again. It was an exciting challenge. I learned a lot about graphic design from Karen Cheng, and gained a new friend in the process (though we almost came to blows in the beginning).

"Gentryville, Missouri" feature edited by Action: Better City, was very fun and rewarding, both for the audacious feature and the critical opinion piece I scrambled to pull together after the Sheri Olsen/P-I debacle: "On the State of Architectural Criticism."

I also had to scramble to pull together "The Desire Issue." It ended up being a really fun and engaging edition. RMB Vivid developed a wonderful design for the issue. In fact, we had a long discussion where I urged them to reconsider their originally proposed cover that I felt was too cliché. They did and then won at least one award for it, maybe more.

RON / Tell me what you consider the worst article ever published?

KELLY / I really can't think of one. Yes, there were some weak ones, but I don't know about "worst."

RON / B-O-R-I-N-G-!

KELLY / Look, you have way too many questions here anyway. Delete this one. Anyway, I'm done with my latté and have errands to run.

RON / Like what?

KELLY / I have no idea what would follow that description and be appropriate within the context of this interview or the magazine...

RON / You're acting just like an editor!

We ended the interview by walking along the pier together enjoying the warm salty air until we approached Harbor Steps and went our separate ways. As I glanced back at her bouncing up the stairs, I was reminded of her unrelenting energy for ARCADE. I decided to keep walking to the Sculpture Park and couldn't resist humming the tune, "There is nothin' like a dame."

Ron van der Veen is a long-time contributing writer to Side Yard. He hums a lot

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Pleasure: The Starting Point of Architecture / Pierluigi Serraino

Common knowledge holds that pleasure is the primary driver for the reproduction of humankind. Its self-evidence requires little justificatory claims in view of the exponential growth of the world population. To the disbelief of many, perhaps, it could be argued that pleasure is also the overriding engine propelling the perpetuation and ultimate legitimacy of architecture as a venerable human endeavor. Why so?

To establish the authority of architecture on pleasure might bedeemed reductive, vilifying, derogatory, inconsequential, irrelevant or just plain off. To some extent, these value judgments would be based on a particular connotation of pleasure: something superficial, ephemeral, secular, hedonistic and probably borderline trivial. Conversely, in the realm of the procreation of the species, pleasure is an all encompassing, unwavering and recurring vector that stretches life over time, never tapering its direction and target. It is a structural force that grants survival to the human race in the face of its ever-looming self-inflicted annihilation. In architecture, as well, pleasure is the feeding tube of a profession constantly declaring its own imminent death. The design literature, for all that matters, embraces the latter definition pleasure – an instinct always on the side of life – is what holds architecture together in a unified tension for the betterment of the built environment. Architects' pursuit of pleasure and their romantic quest for timelessness start sharing unanticipated similarities

The word pleasure keeps emerging in literary milestones of the design universe, from product design to landscape design to regional planning. If gardens, baths and places of recreation have pleasure as a most immediate goal for their users, other components of the human-made universe are equally capitalizing on this gratification. A case in point is urban theorist Kevin Lynch, who opened his most famous manuscript – *Image of the City* – with the pleasure that we can all experience by walking in a city we enjoy. With this idea in mind, Lynch constructs the authenticity of good city planning, where individuals can orient themselves to counteract the disaggregating might of modern developments. While arguments in favor of pleasure in architecture can be found scattered in texts written throughout past centuries-who does not remember Vitruvius' *firmitas, utilitas, venustas* (i.e., delight)? – two key examples from the Renaissance command our postmodern sensibility.

In 1499, the Italian friar Francesco Colonna published the monumental book, *Hypnerotomachia Poliphili*. This renowned volume, only recently (1999) translated in English language, contains an account of architecture as pleasure, bodily and devout, in the mixture of fiction and historical scholarship. Lengthy descriptions of magnificent structures punctuate the narrative, filled with a stream-of-consciousness, if you will, on architecture way before James Joyce's time. The grand scale of these artifacts overwhelms the senses of the main characters in what reads like an endless sequence of architectural wonders. In celebrating the ins and outs of edifices, the author shares with the readership the overpowering feelings of delight, if not arousal, that buildings and gardens have on the protagonist. Poliphilo. Here architecture is a backdrop for Poliphilo's love for Polia,fulfilled only in his dream.

Two decades later, Thomas More wrote *Utopia* (London, 1516), a book in which he devoted numerous pages to the regard pleasure kept among the inhabitants of his imaginary world. Mental and physical pleasures were an integral asset in More's ideal society. The mental pleasure of understanding a concept or contemplating an event was equated with the physical pleasure of being healthy, a physiological state of bliss. For him, feeling pleasure was a constitutive part of being alive and the whole idea of "wellness," to bring this notion to our contemporary times. Pleasure is here portrayed as a quintessential attribute of dependable citizenship.

More recently, in the *Introductory Lectures on Psycho-Analysis* (Vienna, 1917), Sigmund Freud made the "Pleasure Principle a cornerstone of his grand psychoanalytic project. His thesis goes thatobtaining pleasure is the main purpose of our mental activity. Within ourselves we carry a regulatory mechanism that manages the quantities of mental excitation. Our life is a constant pursuit of that sense of ecstasy and, as a corollary of this, we also actively avoid unpleasure. Through the mediation of education and socialization, we tend to negotiate the terms of that pleasure by what Freud called the "Reality Principle," a balanced approach between the chase for pleasure and the practicalities of day-to-day life. Although Freud purposefully mentioned the sexual act as a paradigm of pleasure, he extended that longing to all mental states. With no direct mention to architecture in this groundbreaking study, orducers and users of design artifact can nonetheless recognize the ramification of this idea in their realm; perfect example being lifestyle as the ideal stage for the embodiment of pleasure.

To exist as a qualified proposition, over time architecture has progressively lost pieces of its own necessity to new professions. One by one, landscaping, structural, mechanical, and civil engineering, product design and many other slicesof design got slowly released to a crowd of emerging figures: parking consultants, retail consultants, elevator consultants, cost estimators, and on and on. There seems to be less and less in the knowledge base of the field. Of the memory of the Renaissance architect, expert in defense systems as well as flatware, all is left is a layer at one percent transparency of that all-encompassing image. So what is architecture's *raison d'etre* then?

Architecture as the playground for pleasure discloses these traits in various ways: the pleasure of architects who indulge themselves in endowing the lines of their drawings with some kind of teleological signification, and the pleasure of the consumers of architecture who experience highs in their buying into the architectural experience. While reflecting on pleasure, friar Francesco Colonna, apparently a character of dubious moral reputation, lived until he was 94 years old. This was unquestionably a biological feat for a man of Renaissance times. Might pleasure have played a role in such long-lived existence? If that is the case, chances are that pleasure will grant architecture many more years to live than what we are willing





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