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A steel tool closes with tons of force as molten plastic fills its cavity in seconds. Another tool opens to reveal a perfectly formed plastic chair. In his latest documentary, Objectified, Gary Hustwit takes us behind the closed doors of industrial design to meet the personalities, processes and forces that shape our mass-produced world.

On June 10th, Hustwit was in attendance to present the second in a trilogy of design-themed documentaries to a sold-out crowd of Seattle’s creative community. His first film, Helvetica, gained global acclaim for its discussion of the much-used, loved and loathed typeface. The film tells the story of the development of this modern type classic and presents sharp-witted arguments for and against it from designers such as Massimo Vignelli, Matthew Carter, Erik Spiekermann and David Carson.

While Helvetica focuses on the compelling rise of one typeface, Objectified takes a wide-angle look at the business of industrial design. As defined by the Industrial Designers Society of America (IDSA), industrial design “is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer.” Making a documentary on industrial design in 90 minutes is a daunting task, but as Hustwit noted in his post-show comments, it’s not intended to be comprehensive. Rather, he carefully curated conversations with some of the finest names in design and design criticism.

Objectified features dramatically different perspectives on the industry from Dieter Rams, Jonathan Ive, the Bouroullec brothers, Karim Rashid and Rob Walker, among many others.

The film puts you in conversations that the design-faithful would only dream of having. First we walk with Dieter Rams — legendary for his minimal Braun aesthetic — in his backyard as he trims his bonsai trees, delivering another piece of stoic wisdom with each clip of his shears. Then we are surrounded by the highly expressive designs of Karim Rashid, who seeks to find a “physical representation of the Digital Age.” Next, we find ourselves in the white-walled, smoky Parisian studio of the Bouroullec brothers, who blur the line between art and design. We visit Tokyo-based Naoto Fukasawa, who describes how peeling potatoes inspired the soft, faceted surfaces of a cell phone. Even the notoriously closed doors of Apple are opened—with Jonathan Ive illustrating to the audience how to “get design out of the way” of people’s technology.

But instead of falling head-over-heels into product worship, Hustwit tempers the film with voices that consider a larger frame of reference. Rob Walker, The New York Times “Consumed” columnist, describes the consequences of a culture driven by “buying the new now” as a means to distinguish individuality. This conversation evolves to breach the subject of sustainability, but like the state of the industry itself, isn’t quite sure how to reconcile the demands of a strained ecosystem with the draw of a glossy object. To that dilemma, Rams steps in to guide this generation of designers: “[In the future] design will be measured on how it will enable us to survive.”

While Helvetica holds a tight critical focus, Objectified opens the doors to several 800-pound gorillas without caging them up again. The film moves between topics of history, design process, a variety of differing philosophies, interactive design, consumerism, sustainability and an open-source design future. These are forces that are shaping design today, but it’s a lot to cover in 90 minutes. Providing answers isn’t necessary, but building a framework that links fewer topics to defined themes would have provided a better understanding of industrial design and moved the film’s message in a clearer direction.

Objectified takes us into the minds of people who create objects with beautiful stories and compelling experiences. It’s a rare look inside a profession that shapes our man-made world. While moving fast between a variety of subjects, it serves as a brilliant look at industrial design and encourages greater public discourse regarding our designed future.

Objectified
A Wide-Angle Look at Industrial Design

The film puts you in conversations that the design-faithful would only dream of having.
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Seattle Center Skatepark represents an evolution in skatepark construction, which has been marked by separate iterations of metal, wood and concrete over the past decade. Completion of the new 10,500 square foot facility denotes a fourth wave in this lineage. And unlike its predecessors, this state-of-the-art skateable plaza utilizes novel building technologies and materials. Most notable is the use of foam instead of earth for the park’s form generator.

The first skateparks emerged during the 1970s skate-boom and emulated backyard swimming pools that were being used by “thrashers” to perfect their art. Flowing designs and steep transitions allowed boarders to carve quickly in and out of ramps, “surfing the concrete wave.” Traditional obstacles such as bowls, snake runs and half-pipes were the idiom of the pool-skating era. As the sport shifted to a modern, trick-heavy style, smaller, more technical skate elements were developed.

While park design has adapted to accommodate new types of skateboarding, construction techniques have remained fairly consistent until just recently. Skateparks are typically built in the following manner: First, earth is excavated and compacted into the park’s rough shape. Next, a layer of sand or gravel substrate is added and rebar is laid over the surface. Finally, concrete or steel coping is installed on ramp edges prior to the application of shotcrete (concrete projected through a nozzle on a pressurized hose). Following placement, the concrete is hand-troweled to a smooth finish.

Seattle Center Skatepark, called “SeaSk8” for short, differentiates itself from traditional parks in both design and construction. Located on top of an existing roof, which houses mechanical and kitchen equipment for the Key Arena beneath, the park is built entirely above ground with no excavated features. Instead, it is designed as a “street course” that includes stairs, rails and banks. Sections of green wall, translucent glass ramps and an artistic fence increase the park’s visual interest as seen from a covered viewing area.

Using foam (polystyrene) for skatepark construction offers many advantages. Unlike dirt, it is dense and requires no compacting. Furthermore, the material doesn’t retain water or settle, which helps reduce the chances of cracking in the four-inch concrete topping slab. Hundreds of foam pieces can be easily stacked and cut into any desired shape. In Seattle Center’s case, the material is an ideal alternative to dirt backfill because it is lightweight and minimizes the load on the existing structure below.

Advances in skatepark design and construction in the Northwest parallel international trends. Carve, an innovative designer of urban public spaces in the Netherlands, has been using three-dimensional computer models and foam construction approaches since 2005. This has allowed them to realize seemingly impossible dreamscapes sculpted to perfection, such as A8erna located just outside Amsterdam. Foam has also been used exclusively in skateparks throughout Sweden, including the infamous ActionPark in Gothenburg.

With over 28,000 skateboarders in Seattle today, the new district park fills an intercity niche in Seattle’s City Wide Skatepark Plan. It becomes the latest addition to the area’s two existing parks: the 4,200 square foot Ballard Commons Park and the 17,000 square foot Lower Woodland Park. By involving the skateboard community and a variety of stakeholders in the design process, the park illustrates the beauty of collaboratively realized public space. Through an integration of old and new, public and private, form and function, the new SeaSk8 represents the future wave of skateable space.

Casey Goodwin is a graduate of the University of Washington’s Undergraduate Architecture program and works for Miller Hayashi Architects in Seattle. Longtime skateboarder turned advocate, he advances ideas and developments within the design community through writing and photography.
Local Focus

09 ARCADE Fundraiser

A New Alchemy

Last June ARCADE hosted our first-ever fundraiser inside — what else — a metal fabrication shop. Thank you, Argent Fabrication for being a fantastic host and making sure our Mad Scientist theme (complete with a Tesla Coil, Theramin and Van de Graaff generator) was a huge success. Thanks to everyone involved we raised over $10,000 for the production of Volume 28: A New Alchemy. Thank you to everyone who made this night one to remember!

Thank you to all those who made this shindig happen!

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From top: David Miller and Liz Dunn.

Guests enjoying the party.

Steve Hoedemaker, Moira Holley, John Hoedemaker and Jay Deguchi.
Michael Heizer is building a mile-long earth and concrete sculpture, City, in the Nevada desert. The work is city-like in structure only—it is an aggregate of solid, monumental forms situated in machine-formed craters and mounds that resemble the sprawling civic centers of classical societies. Heizer first cut ground in 1972 and has invested millions of dollars, as well as thousands of man and machine hours, in the production of his work.

Heizer (born 1944) is a self-styled cowboy with family roots in California and Nevada. Living in New York in the mid-60s, he fell into a loose association with a group of artists who married the formal qualities of mid-century modernism with the pop ecology of the 1960s, in which sculptural materials like marble and plaster were replaced with dirt, common rocks and other ground-harvested objects. Heizer and his colleagues — many of whom moved west to locate large, untouched environments — became increasingly ambitious in the size and scope of their undertakings.

Heizer is best known for his 1969 work Double Negative, a 1,500-foot trench cut into the opposing walls of a canyon on Nevada's Mormon Mesa, the creation of form through the movement of over 200,000 tons of earth. Along with Robert Smithson's iconic Spiral Jetty (1970), Double Negative epitomizes 100 years of modernist thought: the infatuation with progress, confidence in the endless possibility of machines and the veneration of form through its simplification. These sculptures are also massive (and literally dirty) disruptions of their natural settings.

The artist — who in interviews sounds slightly unhinged (or, at least, beleaguered) by his 40-year stay in the desert — keeps the property closed to visitors pending its completion. (On a website about the artist, http://doublenegative.tarasen.net, Nick Tarasen provides City's Google Map coordinates: +38° 1' 48.00", -115°, 26' 10.00". The satellite view is a 2009 USDA photograph.) At ground level, City is almost entirely below grade, skirted and traversed by a network of berms. In the beginning, the artist, using borrowed machinery, did a lot of the labor himself, but in 1997 (yes, 25 years later) the Dia Foundation — a New York-based organization with a 30-year commitment to Heizer’s brand of audacious, large-scale work — stepped in. With Dia and the support of a handful of family foundations, Heizer was able to hire a full-time construction and excavation crew. Besides shaping the perimeters and hull of the artwork, Heizer and his crew have constructed enormous abstract sculptures (gorgeous, out-and-out expressions of Euclidean fundamentals) and heavy, sloped structures that look like Philip K. Dick’s take on pre-Columbian architecture.

In appearance and effect, the sculpture is a concrete Chichen Itza for the 21st century. Heizer is not trying to directly evoke the civic or religious functions of early Meso- and South American civilizations, although he could do so with competence: His father was an anthropologist and the young Heizer would occasionally join him on his travels. The artist is instead dealing in awe — in formalism and sheer magnitude. He is also dealing in a patently mid-20th century American perspective of awe. In art terms, this is the perspective of the Abstract Expressionists who pushed the size of painted canvases to the absolute capacity of gallery and museum spaces. In general terms, this is the love of the boat-sized car, the McMansion and the 100-foot flagpole. For awhile there, bigger was better.

In recent years, Heizer has joined local ranchers, Nevada politicians and national environmentalists who are contesting the federal government’s plan to store the sum of the nation’s nuclear waste in a facility (now partially completed) in the belly of Yucca Mountain. If all goes as planned — the Obama administration has, for now, tabled the project — low-grade nuclear waste, as well as the potent weapons-grade stuff distilled from it, will be transported by rail from over 100 locations throughout the United States to a drop-off point in Caliente, NV. From there the waste will be carried by rail through Nevada ranch land to the repository, where it will sit for thousands of years until the radioactive materials have fully degraded. Situated on a large parcel of private land, City is not quite within shouting distance of the proposed Yucca Mountain facility (and incidentally, the Nevada Test Site and Area 51) but close enough to be troubled by it: The proposed Caliente rail line cuts through the desert within the sightlines of City.

Both City and the repository have been decades in the making, and in very different ways, Heizer’s masterpiece and the detritus of nuclear technologies are stubbornly built to last. Whereas City embodies a sort of visual fulfillment of the modernist impulse — it is a fantastic, outsized expression of pure, egotistical form — the dormant Yucca Mountain facility is a necessary, fated manifestation of the modernist veneration of machines and industry. (A safe storage solution for the United States’ nuclear waste is undeniably needed. The more remote the location, the better.)

City is a reminder that art-making can be bad for the environment: Many art materials are toxic; gas-guzzling machines build and transport work and a lot of installations are temporary, un-recyclable and slated to be thrown away. Either by dint of a green agenda or simply by being a porous member of an increasingly environmentally-minded society, the new generation of artists tackling issues of the earth are making smaller, concept-driven and sometimes deliberately helpful gestures. And earthworks, like City, although they sound the part, are not conservationist gestures. Participants in the business of art, while duly awed, are increasingly less comfortable with Heizer’s brand of grandiose, macho production.
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Detail from August Wilson Way icon, by Mindy Lehrman Cameron
Grounded is the first of four issues comprising ARCADE volume 28, a series urging change in the way humans inhabit the planet. Building on the questions regarding waste raised in volume 27, these issues use the four elements of alchemy — earth, water, air and fire — as an investigatory lens. In a post climate-change world, where we live with the results of our flawed design methodologies, this lens demands that we reconsider the way we approach design by fully engaging the complex systems of the earth. It demands that we reset our cultural viewpoint, create fluid methodologies and craft a new reality. This requires curiosity, perseverance, humility, grace and an open mind. The willingness to ponder apparently irrelevant information, co-habitate, and create with uncertainty and fear is essential.

We have used Cartesian methodologies to structure information, to inform designs, products and ideas, to order and communicate decisions. This approach rejects the complexity of systems for the simplicity of a decision tree. Rich, interwoven systems are simplified to fit the structure, not the other way around. If an issue or idea does not fit within a discrete pocket in the framework, we are troubled and discard it as irrelevant. To access long-existing, complex systems, we use indicators like the Spotted Owl. This is a start, but we need to craft ways to build a deeper understanding. This requires both the rational and intuitive, using the intuitive, the more fluid of the two, to find merged and complex solutions.
Why earth? It is our foundation. The earth we view as static is alive and fluid. A cup of soil contains more than a billion organisms—a critical part of the food web. A square yard of cropland can contain from 50–300 earthworms—a foundation far from inert. Roofing manufacturers have found a market in green roofs and to-date are challenged to conceive of soil (unlike drywall) as a living medium at the center of the food chain. We take great pleasure from the earth, and with the taste of geology and ecosystems found in food and wine, terroir is the ultimate distillation of place. Great writers describe the power of place, coupling images of light, sky and the earth’s silhouette with the color and taste of soil. This foundation is at the heart of complex, interwoven systems—physical, chemical, material, social, cultural and on and on.

This issue includes the thinking and efforts of individuals who are working with earth and who are comfortable with interwoven questions. They are willing to mull and work in the thick of complex systems and find solutions that integrate the complexity. Each brings to the effort dogged pursuit, exploration and humor. Each is a generalist and an expert. Each is an alchemist working with the aim of achieving understanding in the center of complexity. Each offers a way to approach design with strategies challenging our assumptions.
As a counterpoint to these new approaches, two exquisite photo essays illustrate, in a deeply powerful manner, the terrible damage embedded in our approach to the earth. One graphically shows human and ecosystem damage, and the other masks ongoing damage in the seductive beauty of forms and lines appealing to our eyes. The generosity of the San Francisco Museum of Modern Art photography collection brings to us a poignant and powerful collection of Dorothea Lange’s work in the 1930s documenting displaced farm families and migrant workers. The photographs illustrate the harsh reality of overused and undernourished soil in the rush to produce a cash crop instead of working with what the soil can sustain. This imagery graphically illustrates the result of flawed solutions and the subsequent pain and waste. As part of the exhibit, Topographies in Built and Natural Landscapes, commissioned by the University of Idaho’s Prichard Art Gallery, the images from The Palouse Project are the result of a collaboration between photographer Lara Swimmer and architect Robert Zimmer in a mapping of one of the most fertile and exotic western landscapes. The tilled lines reflect lessons learned from the Dust Bowl, but as Sarah Scherr of Ecoagriculture Partners would point out, this annual working of the soils results in extraordinary waste with the loss of topsoil to erosion. This is a reminder that while powerful and beautiful, the Palouse is an earth-formed landscape at great risk with yards of the world’s most fertile and valuable topsoil lost at a staggering rate to erosion each year.

James Urban, has steadfastly worked for years in the arena of urban soils and trees, coupling research with post-construction evaluation and innovation. This man formulated the soils that support the lush plantings growing on the Mercer Island Interstate 90 Lid. Decrying the 13 to 20 year average life of a typical urban street tree, when the same tree would live for 150 to 300 years in a more natural environment, James has done the primary research developing metrics supporting the healthy, the Palouse is an earth-formed landscape at great risk with yards of the world’s most fertile and valuable topsoil lost at a staggering rate to erosion each year.

Paul Kephart leads the ecological consulting firm Rana Creek in the pursuit of science and innovation with a commitment to replicating natural cycles, structure, function and diversity. Working with Bill McDonough on the Gap headquarters and its extraordinary green roof twenty years ago, and most recently the green roof for the Academy of Science in San Francisco, Paul has done some of the most important work in the area of green roofs and soils. By working with natural systems, bioclimatic zones and the associated teeming life in soils, he couples primary research with innovation and evaluation—test, try and learn. Here we get passion and science.

Professor Chuck Henry with the University of Washington Interdisciplinary Arts and Sciences has been called “Mr. Biosolids,” having worked for years researching the broad range of issues associated with this product of our wastewater treatment facilities. His research has informed regulations, agencies and communities grappling with this culturally and emotionally distressing material. We are remarkable producers of extremely valuable waste that we wish was invisible. Professor Henry grapples with the value of this resource as well as the valid concerns and the cultural dissonance surrounding it.

Ecoagriculture Partners is an NGO doing groundbreaking work internationally in rural areas with indigenous communities developing alternatives to slash-and-burn, fertilizer-dependent agriculture. The results stabilize communities, reduce poverty, conserve biodiversity, conserve the soil that was previously depleted and reduce the destruction of carbon-sequestering forests. The collective global impact has remarkable social, political, environmental and cultural implications. Again, soil and its teeming life are at the root; this alternative thinking goes against the grain—in this case, that of the agro-industry and corporate farming.

Terror is essentially about the integration of place, earth, culture and life. In her book, The Taste of Place, Amy Trubek explores this aggregate in American life. In a thoughtful interview, she urges us all to shift our relationship to food from that of a transportable commodity to the sensuous experience of place and living—think Babette’s Feast. She believes that by creating an awareness of the web that supports the taste of the earth, the current discussion of food—including topics of food security, slow food, health, etc.—can move us all from a placeless culture to one where food profoundly connects us to where we are.

These individuals are a number of many who are working with the earth and all the things that spiral out from this focus. They share a full engagement with key issues in their search for the integrated circumstance. Each of them illustrates the compelling power of experimentation, mulling, passion and action. What this discussion of earth shows is that if you really want things to work, do the science, do the post-construction evaluation, think about it, mull the results and implications and integrate all this into the design. If you are truly interested in change and a constructive contribution, get comfortable with the uncomfortable. Get comfortable with what you don’t know, and build the places in your design framework to allow those issues to percolate and inform your thinking. If you ask the question, “How is this relevant,” and you don’t know but feel it might be, hang onto it. The notion of terror and a fluid earth is at the center.

Barbara Swift is the founding member of Swift Company LLC and has a long commitment to changing the way we fundamentally think about all systems.
dust bowl
pain
These images represent Dorothea Lange’s powerful documentation of sharecroppers and migrant laborers driven west to Texas, Arizona and California by the Great Depression and the Dust Bowl. A portrait photographer and early member of the F64 Group, Lange brought a compassionate eye free of sentimentality to this profound, raw record of destitution and despair. Working as a photographer for the federally sponsored Resettlement Administration (RA), Lange documented families fleeing the drought and devastated acres of farms in the Midwest to work in cotton fields and farms farther west. (This is the world of John Steinbeck’s *The Grapes of Wrath.*) These images from the mid-1930s — not so long ago — are visceral, communicating the combined impact of appalling soil management, climatic conditions and short-term greed.
Above: Some elements in an ecoagriculture landscape — the road to the San Luis Valley, Costa Rica, recently paved to prevent erosion. Coffee, corn, sugar cane and other products grown in the valley are sold at a local cooperative. Photo by Nathan Dappen.

A chameleon makes its way across a coffee plant on a plantation in Bwindi, Uganda. An example of how agricultural areas can be habitats for wildlife. Photo by Jeff McNeely.

Stand Down, Green Revolution

ecoagriculture is here
In 2000, Sara Scherr, Director of the Ecoagricultural Partners, helped coin the term “ecoagriculture” to describe a series of agricultural practices which work strategically both in terms of conservation and rural development. In Farming with Nature, Scherr and Jeffrey McNeely show that rural communities carefully managing their resources can make an ecologically sound living and achieve three goals:

- **Enhance rural livelihoods.** This includes small-scale ecotourism efforts, such as providing trail access across land to significant tourist sites.

- **Conserve or enhance biodiversity and ecosystem services.** This can be accomplished by terracing sloped fields to conserve water, soil and down-slope water quality; creating hedgerow fences to provide habitat corridors; and maintaining “patches” of native growth within the cultivated areas.

- **Develop more sustainable and productive agricultural systems.**

  The hybridization of perennial cereal/grain crops augmented with poly-cropping systems is perhaps the single most important piece of work being done in this area. Unlike annual crops, perennials are not replanted each year and thus greatly reduce the amount of carbon released into the air via tillage and fertilization. Perennial forms can also reduce water use and soil fertility loss.

Recent studies show that yields from ecoagriculture are broadly comparable to conventional yields in developed countries and significantly higher in developing countries where existing systems are low-input.

Successful projects are typically in indigenous-based communities with strong leadership and unification from having fought for self-governance. Communities with already degraded lands also tend to be very willing to adopt ecoagricultural practices, as well as communities with historically revered indigenous landscape features and significant biodiversity to be protected. In these cases governing agencies are eager to provide support, regulation and incentives. Communities quickly see the economic opportunities in association with the protection of biodiversity and use it as a sales tool. They tend to quickly grasp the value of getting the necessary certifications to market their products, and farmers tend to be willing to try relatively simple adjustments.

Also key is that ecoagriculture recognizes agricultural producers and communities as stewards of ecosystems and biodiversity, enabling them to play these roles effectively. Meeting the target goals of eco-agriculture usually requires collaboration and coordination between diverse stakeholders who are collectively responsible for managing key components of a landscape. This means that the conservationist and the farmer must work together and understand each other’s needs and concerns to the point that they actually share them.

Successes aside, though farmers tend to be very proud stewards of their land, at times they are often unaware of and less concerned about their role in affecting the larger landscape outside their farms. And ecologists and preservationists have been historically anti-agriculture and see it as purely degrading.

But change comes particularly slowly for agro-industry leaders and, therefore, policy makers in more developed countries. Scherr indicates that we’re in the middle of a paradigm shift and that those with the greatest financial stake in the old system will be the last to change. “It takes at least a generation—it will be 2025 before this stuff is standard. It’s difficult to clearly define the problem, which is about 10% involved with the input and 90% to do with the management practices. That’s one of the hard things for product-oriented people to understand. As a result, not enough research is being done.” She goes on to say that current agricultural research and aid-funding policy is still largely based on a badly outdated model segregating the functions of biodiversity and agriculture. This highly simplified agricultural maximization model erroneously assumes that soil fertility equals the amount of fertilizers applied. As wrong as this model is, agri-corporations have made big money from it, and money-making opportunities are far from fully realized in the new model.

When asked what gives her the most hope for a paradigm shift and widespread adoption of ecoagriculture as the primary agricultural system, Scherr very confidently says: “People and farmers are willing to make good choices if they’re provided with the opportunity to choose.”

Ecoagriculture recognizes agricultural producers and communities as stewards of ecosystems and biodiversity, enabling them to play these roles effectively.

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CAITLIN EVANS

Between 1990 and 2002, four-percent of the world’s total forests were lost, primarily to agriculture. Forests and wild lands with rich biodiversity and high carbon sequestration value — especially in equatorial zones — are often under pressure for agricultural use because they are many times impoverished areas where populations farm to survive.

Historically, when soils have been depleted in such areas, farmers have moved on, slashing and burning new fields. Often the depleted fields are used by poorer farmers or grazed, further depleting the land.

So how do we, humans, limit the amount of land we need for agricultural use and its ill effects?

Caitlin Evans lives and plays in the dirt in Seattle where she practices landscape architecture with Swift Company LLC.
Barbara Swift I am very interested in your book, The Taste of Place. I think Americans have a disconnected relationship to place, and your book gets at this in a very interesting manner.

Amy Trubek In the book, I tried to emphasize that the relationships to soil and to food for many humans, for much of history, were primarily sensorial experiences—aesthetic and livelihood experiences. We need to eat and drink to survive, but if we thought about agriculture as not just a tilling of the soil but an aesthetic of the soil including all the senses... I think that's an element environmental designers should think about. Something as simple as incorporating edible plants into annual planting can be a sensory experience combined with the aesthetic of food.

BS In your book, you focus on the relationship between food and place, but one of your observations had to do with food as a commodity that easily can be separated from place.

AT Food is fundamental to what we need to survive along with water, shelter, etc. However, we no longer think of the ability to procure food as the major constraint in our relationship to food. Instead, we think about our desires. There is a global system that allows us to think of our desires first and then use the marketplace to purchase our desires as commodities. For most Americans, food is primarily a commodity not linked to place. This has given us a tremendous amount of possibilities, but also created a skewed relationship with food.

There is a groundswell of concern because we put food in our bodies. We don't put houses in our bodies, so concerns about what we might be doing to ourselves physiologically by separating ourselves from place seems to be creating an interest in knowing where our food comes from—more interest than in knowing about light bulbs because our choice in light bulbs does not seem to have such a perilous quality. This is one of the reasons I think the topic of food is particularly powerful as a cultural conversation about place. There are a lot of interesting implications to a place-less food system. We can eat anything we want whenever we want it. We have a level of variety in our diet that has never been seen before. If you were the Roman emperor you couldn't have the variety that I can have with my middle class life in the United States because you didn't have the resources or the technology. We have created systems resulting in tremendous variety, but the price we pay is that we don't know anything about where our food comes from or how it is made.

Now, as we struggle with the reality of a commodity system, we’re trying to figure out what to do. In England they have a labeling system for meat arising from the problem with hoof and mouth disease in cattle in addition to mad cow. For safety, the consumer wants to know where the animals come from. Now you can get the information, but you are still in the placeless commodity system. You’re just getting information. That’s where we are moving because we don’t want to give up variety and the ability to not be burdened by the work of food. Throughout history humans were burdened with trying to get food and trying to survive. Now we have a system that allows us to survive without feeling like somebody in the household has to spend all of their time procuring and preparing food.
BS I’m increasingly seeing labeling, particularly in produce, dealing with the source.

AT It’s called the “Country of Origin” labeling law and is part of this visibility idea. Produce has to be labeled to indicate where it comes from. There was something I wanted recently, and it came from Guatemala, and I was like, “OK, well? Do I want to get it?” So then you’re at that moment in the grocery store actively thinking about place—it’s a new version of “Do I want the Twinkies or not?”

BS When I consider something, I think about the embodied energy, the use of resources, and it becomes a moral debate for me.

AT I think this is very important. Often when I give talks on The Taste of Place, somebody always wants to turn the discussion into a morality tale. I am really resistant to doing so. My fear is that then the discussion stays at the level of individual choice or judgment. You are to judge or not judge others, you judge or don’t judge yourself. To talk about food and place this way keeps us at the American cultural belief system concerning food and doesn’t create change. If we want to make food and place something different, we can’t create morality tales. The stories should be about sensory pleasure related to where the food came from and the economic livelihood and cultural traditions of those who are involved in the work of that place. That’s what I focus on.

BS You are endeavoring to change the fundamental relationship between food and place in the American culture.

AT Yes, and I don’t necessarily think I’m going to succeed.

BS It seems that if we can’t bridge the distance between the diversity/commodity food system and the place-based system, fundamental changes won’t happen and the relationship to place in America won’t mature or change.

AT I have a sociologist friend who says it’s the discourse around food that is significant; what you’re getting at is the discourse we will have around food in the future if we say that place is important. If we start to choose place-based food, then we have to create a discourse and system to support that behavior. How does that happen? Part of what I’m trying to do in the book is show that a taste of place discourse is emerging among certain groups. The next question is, will this be a meaningful discourse that chefs, cheesemakers and winemakers have solely among themselves or does it move to another layer of cultural acceptance and awareness?

BS This is a fundamental issue for all disciplines, and as individuals we understand the need for the discussion, but sometimes the professional training gets in the way of the discourse. If I have this conversation with a developer, they might personally understand and agree, but professionally they are working in a circumstance that makes it difficult to integrate the two things together.

AT There’s a development — South Village — in South Burlington where a developer with a gardening and agriculture team has designed a farm in the middle of the development. People are able to get the farmed products; they have someone to run the farm, but because of the economy, the next stage has not been built. The farmer is running it as a CSA (Community Supported Agriculture), the homes are going to participate, and then they’ll open it up to the larger community to sell the produce. I thought it was a great premise to have a farm in the middle of a development. Different forces are coming together with some really innovative problem solving. People are thinking across domains and making connections they never could have made 30 years ago, so I think our common sense might be shifting. I don’t know the breadth or the depth of this change... I think you may see more and more innovative work that relates to place over the next 10 years.

BS For quite a long time I have thought that people respond to places as animals; therefore, you need to engage all the senses. I think food is a different way to tackle this idea. I wonder if there are things in this book that would shift people’s thinking and approaches concerning the profound disconnect between Americans and place.

AT The connection between taste and place is resonating in a way that’s larger than when I first wrote about it. I would say that it’s clear to me that there’s a broad scope of people trying to understand place and localizing action. That’s partly because of global climate change, among other reasons. So I say, “Oh, have you thought about taste in that way, too?” and people say, “Oh, oh yeah, I hadn’t really thought about that.” It’s very interesting for me because when I wrote the book, I was not actively involved in the environmental movement — localizing foods because of climate change — but it’s increasingly becoming a very dominant discourse. The book does not directly address some really new ideas, such as the locavore notion of eating within a hundred miles.

BS In the book, you used the terms sensuousity, pleasure, and, in listening to you talk now, Bobette’s Feast keeps coming to mind. You also talk about food and community, food and people talking, informal structures for getting food, selling food, and all of this goes back to the disconnect we discussed earlier. Do you see this shifting at all?

AT I’m hoping that we can have a new conversation about food that’s connected to place and community. That is my ideal and in the book, when I explore that idea, what I’m talking about is what they call in France cuisine de terroir or regional cooking. I’m interested in the idea of regions and how we imagine our eating and cooking regionally because I think it’s a really great way to cook. Here in Vermont (and in other regions) I see young people willing to invest their energy to make food that can be the building blocks of regional cuisine. So we have the cheese makers and the produce people, but we also have these amazing cooks and breadmakers and other food artisans—it’s all here. Such availability has a huge impact on my quality of life.

BS In the 1970s, I worked on a planning study for the Golden Gate Nation Recreation Area located in the San Francisco Bay area including Point Reyes. I had always found that landscape to be one of the most profoundly beautiful, moving, evocative sensuous places in the world. I have spent time in the area in the last year, and with food coming from the ranches out at Point Reyes, the relationship of food to place in this region is powerful. Again, it speaks to this disconnection and dissonance that I think exists to varying degrees in the way in which we inhabit the land.

AT The power of knowing a meal you’ve had your hand in and knowing the other people who put their hands in it—that’s a landscape I believe in. It’s an aspirational spiritual pleasure. In a way, it’s why I wrote the book—because I love the agrarian landscape and I love cooking and eating. I was just in New York teaching a class and we went to this Latin American neighborhood, and I loved these tamales made by an Ecuadorian woman on the street... Because I live in an agrarian landscape now and because I’ve always been drawn to that landscape and because I love food, I just think it’s an amazing way to eat and to live. I think that is something we might be seeing in the United States—the pleasure of eating the landscape and the importance of that pleasure is becoming a little broader.

A lot of what I attempt in A Taste of Place is to articulate the power of conversation in a community, and wouldn’t it be great if landscape designers and planners started having conversations with cooks and cheesemakers and winemakers about creating a working landscape? I would love to see that. It’s those conversations that I think would be so exciting for the future.

Amy B. Trubek is Assistant Professor in the Department of Nutrition and Food Sciences at the University of Vermont and previously taught at New England Culinary Institute. She is the author of Haute Cuisine: How the French Invented the Culinary Profession and of numerous articles that have appeared in The Boston Globe, Gastronomica and other publications. She lives with her husband and daughter in Cornwall, Vermont, where they own a small heirloom apple orchard.
Urban soils quietly live beneath our buildings, sidewalks and roadways while we dig holes, fill holes and move earth from point “a” to point “b.” The soil we often call dirt gets pushed around regularly and at various scales. From the home gardener that wants to level their plant beds to the front-end loader that prepares a site for a strip mall, we are constantly reconfiguring the surface of the earth.

The surface, which is often covered with a shallow layer of “good” soil, is much more delicate than we recognize. It is in this topsoil layer that most of the plants that live on the earth find their water, their nutrients, their foundation. The plants simply depend on it.

The soil layers develop over a long period of time through complex processes, yet we are quick to demolish them and then sometimes replace them with a new, often less successful, version of soil. Our “new” soils — these scientifically blended materials — are much like a veneer that we laminate to the surface of existing soils. We essentially create two distinct soil levels, rather than one gradient.

We are prone to placing new trees into tiny holes in the new soil bound by heavily compacted existing soil. And then, more often than not, we cover that soil with impervious pavement, blocking access to air and water. Only the strongest trees survive—and then often for a short, truncated life.

Jim Urban, a landscape architect and author, is recognized for his understanding of urban soils and tree planting. Jim’s writing is based on many years of practice and scientific research, all of which he draws upon in his book Up by Roots. In his book, Urban develops a comprehensive understanding of how urban soils and trees live together. He is also a key developer of the DeepRoot Silva Cell, a below-grade structural system that contributes to soil environments for urban trees.

GARETH LOVERIDGE: What are some of your most critical thoughts, or concerns, regarding the state of urban soils?

JIM URBAN: A lot of my ideas have evolved in the last few years. I feel that urban soils are better than we think. The soil industry is greatly influenced by the suppliers. Existing soil, and the imported soil from off-site, often begins by getting ground up prior to replacement. This process can create drainage issues, so sand is added to improve water movement. This amendment is less than ideal, as it is relatively high in embodied energy and reduces the overall fertility of the soil. We need to recognize that urban soils are fragile when we dig them up; we need to maintain their structural integrity wherever possible. If we keep the existing soil
in larger “soil peds” (a ped is a unit of measure that describes soil particles bound together into an aggregate) and mix them with organic compost, we will maintain the structural integrity, increase fertility and minimize the energy invested in soil development.

**GL** Are you following the development of Biochar as a soil amendment, and do you have any thoughts regarding its urban application to benefit trees in difficult environments?

**JU** Biochar, or additives like it, are really more needed in soils that are dead, or dying, and typically in tropical environments. In most urban landscapes, we do not need that type of amendment. I have interest in the use of charcoal for soil planting; however, the energy to produce it, and the subsequent cost to actually install the material, does not make a lot of sense. I am concerned that we are spending too much energy developing soils for urban installations. It’s not sustainable.

**GL** What characteristics or components of soil make the most sense to you?

**JU** I prefer to specify a good compost to amend existing soils with organic content. It’s readily available and always relatively close to project sites. To paraphrase Bob Berkebile, an architect and proponent for sustainable design, there is a trend, generally, for a higher cost in construction with a higher embodied energy. In an interview with Robert Gilman, Mr. Berkebile spoke about “restorative design” and how we need to not only minimize our impact on the environment, but also restore natural processes.

**GL** This makes sense, if you believe that time (or energy) equals money —then you might assume that inversely, money equals energy. I believe this is an important goal. However, I feel that we must not forget about treading lightly on the earth. The less we physically impact the surface, the fewer solutions we require to mitigate the change.

**JU** One problem with sustainable design is that there is no simple equation that designers, planners and builders can use for measurement.

**GL** I think that we need to embrace the ethic of environmental standards such as the LEED program, but we should not rely solely on one tool of measurement. The benefits of holistic, environmental design can happen at various scales. We do not need an all-or-nothing approach; we simply need to think carefully before running down any path. How do you view the progress in the last few years of urban tree installation?

**JU** I think that we should be planting trees in the urban context that can survive without irrigation. After a two- or three-year establishment period, we should be allowing the trees to sustain themselves. The Pacific Northwest has a great amount of precipitation, and the soils tend to be good. The silt-loam soil has a high water capacity but drains well enough. With respect to size at installation, trees that are between two- and three-inch caliper (the measured diameter of the trunk at breast height) tend to be the best candidates for urban tree planting. Trees that are larger require a longer establishment period and often have a root ball that is proportionally small for the size of the canopy. Trees that are smaller than two-inch caliper can struggle in urban settings, as they are more prone to physical damage from daily activities in the public realm.

Scientific research illustrates that there is a direct relationship between tree size and soil volume. For example, a tree that has a 16-inch trunk diameter (DBH) and a canopy of 32 feet requires a soil volume of approximately 1,000 cubic feet. This requires significant consideration in urban contexts.

We must strongly reconsider the prediction to scrape away the topsoils from construction sites and dump them somewhere else, building structures on wide-open sites then importing new soils to prepare the site for planting. In this simple perspective, it sounds a bit ridiculous, doesn’t it?

Our construction management and building methodologies need to change to scrutinize the opportunities to keep as much existing soil intact as possible. The remediation of existing soils that have been physically altered is more complex than simply tilling in some amendments.

If we truly wish to have successful urban trees living to their full potential, sequestering carbon and reducing heat island effect, all while providing poetic inspiration and cultural meaning — for hundreds of years, rather than a decade or two — then we must provide better soil conditions and enough soil volume. And if we do not plan to use irrigation to help the trees survive, then we must provide a means for tree roots to find water.

Change is change. Modifying existing soils alters the chemical, physical and biological properties. By changing soil properties, we change the nature of how, or if, trees and other organisms can live in them.

Think before you dig up your soil and turn it into dirt!

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Jim R. Urban, FASLA, is a landscape architect and 2007 ASLA Landscape Architecture Medal of Excellence Recipient. The award recognizes significant contributions to landscape architecture policy, research, education, project planning and design. Jim has over 30 years of experience in the field of urban development and the planting of trees in challenging urban sites.

Gareth Loveridge is a designer and project manager with Swift Company LLC. Gareth has been working in Landscape Architecture in Seattle since 2000. With broad interests ranging from visual communications to developing innovative landscape solutions, Gareth brings diverse experience in complex urban design projects. He is driven by a holistic approach to deliver thoughtful, sound design solutions that enrich the human experience of the environment.
This “stuff” has been used as fertilizer for trees, crops and pastures for years. It builds the tilth of the soil, adds all the nutrients needed for plant growth in both available and slow-release forms, provides organic matter with water-holding capacity and serves as a substrate that increases soil microorganisms. How can this substance, biosolids, be both so strongly supported by its users and managers and cause such emotional distress in its adversaries?

Communities throughout the US have and are making decisions about the safe management of waste materials. Controversy abounds, as we have been thoroughly trained that “wastes” are synonymous with “toxic.” At one point, this connotation was justly based; history has documented plagues caused by human waste in water supplies, severe health problems from toxic chemicals entering the groundwater and highly contaminated land from mining wastes. The emotional distress many feel concerning the use of biosolids is the result of human activities that took place over many years that were justified on the basis of either economic growth or simple ignorance. Now a significant gap often exists between the documented beneficial uses of biosolids and the dislike and distrust of them.

We feel good about recycling and reusing most things, but not necessarily biosolids, also known as “sewage sludge”—the solids left after treating municipal wastewater. The relationship between biosolids and society is more complex than that of other recyclables. The decisions associated with biosolids management often involve controversy, conflict and litigation. Public concerns regarding contaminants, health impacts, cultural predilections and nuisance color perceptions of biosolids recycling and spill over to affect the decision-making process. After all, how can you argue with Toxic Sludge Is Good for You!: Lies, Damn Lies and the Public Relations Industry? The book’s name alone elicits feelings of distrust for biosolids. It calls into question the method that the industry chose for promoting acceptance of biosolids use and effectively connects public concerns to a lengthy list of contaminants.

So, why not just dispose of biosolids? Because there are those of us who believe in their value and that the scientific basis of Environmental Protection Agency (EPA) regulations protects public health and the environment. Some time in the not-too-distant future we will simply have to make full use of resources like biosolids. The challenge lies in adequately addressing cultural issues and biases.

For over four decades, academic and government scientists have carried out extensive field studies focused on the technical issues associated with the contaminants in biosolids, and the use of biosolids has become the most studied waste management practice in the United States.

With more than a decade of review and data from over 500 studies, the EPA conducted risk assessments and developed regulations governing biosolids use, promulgating regulations in 1993. These regulations include management practices and contaminant concentration limits. The National Research Council of the National Academies has completed two major reviews of the EPA biosolids regulations, examining whether the regulations were developed properly and do protect public health and the environment. The Committee found that, “There is no documented scientific evidence that the [EPA’s] Part 503 rule has failed to protect human health. However, additional scientific work is needed to reduce persistent uncertainty about the potential for adverse human health effects from exposure to biosolids.”

Plant-soil interactions from application of organic amendments

- Improves aeration, water holding capacity and compaction resistance by changing physical soil properties
- Maintains a pH close to neutral
- Reduces erosion and runoff by intercepting rain drops and aggregating soil particles
- Supplies slow-release nutrients and helps the soil hold nutrients
- Provides energy for beneficial microbial activity

CHARLES HENRY

ugly and loved, and yet...hated?

These photos are compliments of Maile Lono, Northwest Biosolids Management Association.
Use and benefits
Any “municipal sewage sludge” design manual details the uses of biosolids as soil amendments, or materials added to improve a soil’s properties. Documented plant growth response in biosolid-enriched soil is nearly legendary; those who use it, including farmers, home gardeners and restoration practitioners, are often avid advocates. Extraordinarily successful biosolids programs include use in forestry to accelerate tree growth; in agriculture to improve crop yield and soil biochemical characteristics; and in metal-contaminated (old mining) sites to reduce bioavailability of heavy metals and promote vegetation. Studies documenting the positive growth responses in these scenarios are amazingly numerous. At the University of Washington alone, almost 200 articles and reports have been written about the use of biosolids.

Overall, organic soil amendments provide benefits over typical fertilizers. Because most of the solids from wastewater treatment are organic, with biosolids use, all the nutrients required for plant growth are slowly released into the soil as the organic matter decomposes. Additionally, organic matter has a major influence on soil tilth and has been shown to improve the soil's water-holding capacity, cation exchange capacity, aggregation and bulk density, as well as buffer pH changes and increase microbial diversity and activity. This addition of organic matter helps ameliorate harsh soil conditions, enabling soil restoration, improving vegetative establishment and increasing the rate of plant community succession. Chemical fertilizer alone cannot serve this function, as it boosts specific nutrients but is not a balanced supplement and cannot enhance soil physical properties.

The bottom line
Soil loss is one of the environmental challenges facing our worldwide society. Globally, soil degradation is occurring from deforestation, overexploitation for fuel woods, overgrazing, agricultural activities and industrialization. It is estimated that soil erosion from wind and water in the US has cost $125 billion per year. If we lose soil, we lower the current and future capacity of the soil to support human life. Stable, safe organic matter is an increasingly valuable commodity throughout the world. When a waste resource such as biosolids is available to replace soil losses, the question becomes not whether to use it, but how to use it most effectively. Management alternatives, such as incineration (the use of fossil fuels to burn a resource) are simply not acceptable in terms of sustainability.

A balance of public discussions concerning sustainability, sound stewardship and waste recycling is needed as waste products increasingly become a commodity. Biosolids must be used wisely, including maximizing their potential rather than their “out of sight” management. We are rapidly coming into an age where each and every decision must take into account issues such as carbon accounting, sequestration and soil enhancement. The use of organic amendments, such as biosolids, has well documented success in these areas.

A new paradigm is needed. We have to understand the earth’s interlocking systems—that each choice we make on waste management has implications elsewhere. Disposal of organic matter reduces that available for soil enrichment; incineration uses energy, destroys organic matter and contributes greenhouse gases. To avoid what has value may be easier in the short term but is contrary to the goal of sustainability.

Charles L. Henry, P.E., Ph.D is a senior lecturer at the University of Washington, Bothell and science faculty at Eastside Preparatory School, Kirkland. Charles has extensive experience in the use of organic amendments for restoration, remediation and fertilizer; the design and installation of compost systems (having invented and licensed two through the UW Technology Transfer, including a composting toilet); wastewater treatment and reuse; and renewable energy.

Some time in the not-too-distant future we will simply have to make full use of resources like biosolids. The challenge lies in adequately addressing cultural issues and biases.
advances in living architecture

PAUL KEPHART
The design and building of living roofs has made the transition from tentative adoption to mainstream use. Environmental policy, economic necessity and social responsibility have increased emphasis on a “living systems” approach to building and vegetation design, focusing on designs that integrate and provide ecological functions. A building’s function and operations provide great opportunities for the application of living systems, including green walls, living roofs and water conservation strategies that enhance carbon sequestration, energy efficiency, water conservation, waste reuse, habitat renewal and a building’s sense of “well being.”

Ecological design has provided philosophical ideologies and frameworks, gaining new meaning and substance. The built environment is now the place for environmental services and development mitigation, with the service potential dependent on both the intrinsic and acquired carrying capacities of living systems. It is easy to assess the intrinsic capacities with greater efficiencies, the purification of air and water, detoxification and decomposition of wastes, regulation of climate and restoration, production and maintenance of soil and biodiversity. This potential is supported by a complex exchange between natural landscapes and mechanical plumbing systems powered by the sun—all as part of a system structure. The difference between landscape amenity and functioning ecosystems is obvious. Living systems inform building typology and form, support heating and cooling, and are integral to waste treatment operations, creating “landscapes” functioning well beyond appearance, color, pattern and texture.

For example, the process of wastewater disposal involves the life cycles of bacteria and chemical elements such as carbon and nitrogen. With water as a precious commodity, this natural process is worth billions of dollars annually. So why not integrate similar processes into structures and landscapes? Most living system designs for buildings can be evaluated and compared with isolated, centralized wastewater systems and can address future impacts to water supply or weakening infrastructure. Unfortunately, the roadblocks to applying living system applications in buildings include regulatory policy and a financial model—compartmentalized private property and public infrastructure. Despite this, several noteworthy projects stand out.

Living Roofs
Living roofs are often valued for their energy efficiency and storm water management, but rooftop soils can supply additional value that is often overlooked. Usually “engineered growing mediums” lacking the bacteria, fungi and living organisms found in healthy soils have been used in living roof design. However, increasingly designers are looking at specific soil/plant chemical requirements and interactions when choosing a planting medium for living roofs. Layering living roofs with biologically rich soil can play a key role in regulating the buildings’ natural cycles, including the processing of carbon, nitrogen and sulfur. The amount of carbon and nitrogen stored in rooftop soil can double that which is found in landscape vegetation, thus offsetting volatile organic compounds (VOC) and greenhouse gases (carbon dioxide and methane). A biodiversity of soil organisms enhances a soil’s fundamental function of processing air and water borne chemicals and contaminants.

Living Walls
Living walls supply water and nutrients to plants while providing thermal insulation to structures. Living walls can be hydroponic (using a liquid nutrient solution as a growing medium instead of earth) or soil-based. Grown without need of soil and valuable space, living walls can play as green lungs to clarify and purify the air. Enhanced by nutrient solutions, living wall vegetation regulates air temperature, humidity and light. Microbes biodegrade airborne molds and bacteria and “fix” chemicals in the root zone. Passive and mechanically assisted air handling in the living wall can convey air through growing media and vegetation, allowing soil microbes to do their job. Considered the next “in thing,” vertical gardening is chic and stylish. Way beyond cool and cooling, tiny microbes in leaf and root tissue remove air toxins, supplying the universal ecosystem service of air purification.

Constructed Wetland
Taking form as basins, swales and flow through planters, constructed wetlands are commonly used in agriculture and landscaping for flood control. However, architects and engineers shudder at the thought of entraining water on structures, given 90% of liability results from building envelope water intrusion. Complicating this is a malaise of regulatory hurdles, “waste” perceptions and misconceptions. Despite the fear and loathing, similarly constructed wetland typologies can be integral to roof, wall and planter systems because they allow sediments to be retained and water polished and filtered, resulting in the ability to reuse this water for non-potable purposes. Water and waste can be processed by decomposing organisms that extract energy from complex organic molecules. Microbial species can process compounds, including soaps, detergents, pesticides, oil, acids and paper as long as the concentration of waste does not exceed the system’s capacity to transform it.

Trends
The “green” roof industry has yet to adopt ecological standards that specify the use of organic fertilizers and eliminate pesticide use by focusing on biobased product specifications. This is coming with the Farm Security and Rural Investment Act, Section 9002, “Federal Procurement of Biobased Products,” requiring each federal agency to develop a procurement program that assures items composed of biobased products will be purchased and used to the maximum extent possible. The USDA designates biobased products for preferred federal procurement and recommends biobased content levels for each designated product. USGBC-LEED™ v2.2 includes credits for use of rapidly renewable materials, such as plants harvested within a 10-year cycle. Green Globes-US provides credit for integration of materials from renewable sources that have been selected based on life-cycle, cost-benefit assessment. This is important to living system design and the inclusion of biobased products, including waterproof membranes, planting technologies, water treatment machines and planting containers, all of which have high initial capital costs and show financial returns over the life of a project.

Naturalism
Most human beings have a deep appreciation of natural ecosystems and a spiritual connection to nature. Buildings that respect and welcome the sun, the earth and wildlife provide us peace, wonder, fulfillment and beauty. Ecological designs that encourage the conversion of barren rooftops and walls will provide ecosystem services and market-valued functions. Buildings whose activities support living systems will pay directly for the cost of losses incurred by past ignorance, poor planning and non-sustainable building practices; tangible ecological, social and human needs will be realized.

Realizing the environmental value of living systems is no longer about eco-chic and no longer about being “green.” This approach based on naturalism and ecosystems allows us to acquire new knowledge that balances investments in sustainable developments and increases measurable performance.
These photographs from The Palouse Project by Lara Swimmer and Robert Zimmer map the evocative, seductive landscape of wind-deposited, rolling landforms in the Palouse region of the Northwest. Behind these beautiful images is a terrifying story. Despite the application of lessons learned from the Dust Bowl, 100 years of farming has resulted in a loss of 40% of this region’s topsoil to erosion; by the late 1970s, erosion had removed 100% of the topsoil from 10% of the cropland, along with another 25% to 75% of the topsoil from another 60% of that land. The Soil Conservation Service considers the erosion in the Palouse to be the worst in the nation.

This is one of the richest and most productive wheat farming lands in the world. A visit to the Palouse to experience this landscape includes a big sky, pale yellow with dust. Those beautiful tilled lines that accentuate the landform and give us this iconic landscape are a primary source of erosion. As farmers develop strategies using no-till farming, these lines may begin to occur every few years. We may see these lines disappear altogether as alternatives develop, and like Dorothea Lange’s, these photos will illustrate a past.
palouse landscapes

Lara Swimmer + Robert Zimmer
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I remain, for reasons not entirely clear, obsessed with artists (architects, writers, etc.) who cultivate tradition and modernity in their work. Like all obsessions, it is certainly unhealthy and, with some expenditure of time and money, could likely be exposed by a good therapist as nothing more than a hapless attempt to placate some authority figure from childhood. But until then, it’s cheaper than therapy and carries the promise of answering one of the intractable questions in art: What is the relation between the ephemeral waves of a transient modernism and the perennial undertow of tradition? Accomplishing this in one’s work is difficult at best. Discussing it with any clarity is harder still, either to analyze or to prescribe. Yet its elusive quality only fuels the obsessive fire, so I continue seeking this shadowy and indeterminate grail.

...as we become more and more accustomed to the idea that architecture is supposed to give us a kind of emotional high, are we not at risk of needing more and more of it, all the time, upping the ante as buildings that once would have excited us now become routine? In the end, this may turn out to be the real way we pay a price for our new fixation—that we need each piece of architecture to be more and more different, to make a louder and louder statement, to attract our interest.

One of the most destructive aspects of modern culture is the association of “originality”— new merely for the sake of being new—with true creativity. Prior to modern times, a work of art (architecture, music, literature) was understood as ineluctably tied to what had come before; the new work might differ considerably from its predecessors, but breaking the rules alone was not enough to guarantee publicity and acclaim. Today, terms like “avant-garde,” “edgy” and “original” designate from its predecessors, but breaking the rules alone was not enough to guarantee publicity and acclaim. Today, terms like “avant-garde,” “edgy” and “original” designate

Tradition implies expanse and history; trend implies brevity and sensation. Tradition invokes age; trend speaks of youth. Tradition demands reference to the past; trend demands iconoclasm and newness. Tradition is based on resemblance—how this artwork or that aspect of culture invokes or relies on what has come before; trend is based on difference—how this artwork is distinct from what has come before. A rebellious act is as beholden to the tradition it rejects as a conservative one is to the tradition it upholds: that is what the avant-garde has been about and why it can now seem so formulaic.

There is a certain approach one can find with some frequency in modern history in which new creative territories are introduced without having thrown tradition overboard. In ceramics, the mid-century Swedish master Stig Lindberg re-balanced proportions and added exuberant abstract color schemes to forms grounded in both ancient civilizations and nature. In furniture, the inimitable Hans Wegner reigned supreme, along with George Nakashima and Sam Maloof, who empowered colonial American furniture crafts with an insouciance entirely modern in spirit.

Isamu Noguchi breathed this spirit of new and old into everything he touched (sculpture, lighting, ceramics, furniture and who knows what else) including, I suspect, the very fabric of his daily life. In music, no one wove the warp and weft of tradition and modernity into a new and lasting whole cloth better than the Russian émigré Igor Stravinsky—in opposition to Arnold Schoenberg who vainly sought to transform not only writing, but hearing, music. In poetry, old and new entwine throughout the work of Seamus Heaney, whose emphatically contemporary verse brings place, history and human emotion into crisp focus. The list could of course be longer, and I’m avoiding entirely dance, prose and the visual and conceptual arts, but these artists set out the general idea.

Case histories like these reveal that tradition — from the Latin Traedo, to hand over, usually from one generation to the next — can be closed or open. Closed tradition mandates subjugation to authority, an armor against the incursion of new ideas, while open tradition promotes evolution through new technology and insight. Closed traditions originate from a static, centralized position of power and are accompanied with lifeless ceremony and ritual. Open traditions, always integrating new ideas, thrive on the continuous and indeterminate shifting and re-distribution of focus and power. And it is closed systems that are the breeding grounds for trends. Though the power behind trends appears to move from one point of origin to another, in fact they germinate from the same reactionary culture, driven by a lethal dose of consumerism.

As data and image supplanted the authority of the actual, foreground and background collapsed into each other; we entered what writer G. S. Trow years ago dubbed “the context of no context,” a zone of relativism unthethered to the old material world and its various orders. And with that change our relation to the former world — to history, to literature — altered, subtly but absolutely. All interactions and transactions now take place in a different gravitational field, and if the man on the street won’t acknowledge it, the artist has to.

One of the problems with a severely abstracted and un-articulated architecture is that it typically contains few if any reference points to our human identity, embedded as we are in a particular set of earthly circumstances, a concept abbreviated as “context.” Architects and critics afflicted with Art-envy dismiss the consideration of context; to them it represents a simple-minded cage clipping their creative wings, limiting personal expression and hobbling the flight of imagination. But I would argue that context is in some way all we have, and as strained and forced as it may be to dredge up its tiny shards buried deep in our culture of “no context,” it is both an act of cultural sustainability and resistance to honor them as ancestral guides. Indeed, this is possibly the only place from which artists can find the necessary “traction,” as Birkerts calls it, to creatively move ahead.

Architecture is not a goal. Architecture is for life and pleasure and work and for people. (It is) the picture frame, not the picture.

Being prescriptive about the making of any form of open tradition is to wade into treacherous waters, where one is more likely than not to end up perversely circumscribing a closed system. First advanced in the brilliant book Houses Generated by Patterns for a competition in Peru, Christopher Alexander’s Pattern Language, and its near religious variants, is an architectural example of a specific open system extrapolated into such universal detail that the result is a closed...
system of pattern-book authoritarianism. In spite of this peril, I would propose three general — and open — topics for consideration, under which a building could be asked how it is connected (or disconnected) from its ancestors:

Topography & Boundary — What is the relationship to the earth and where does the space of inhabitation end

Typology & Culture — What precedents exist in the history of building, spatially or culturally

Tectonics & Scale — As Peter Rice has asked, is “the trace of the hand in building” present in some way

Take, for example, the contemporary Japanese architecture of Terunobu Fujimori, whose work effectively presents this dialogue in built form. The buildings, each one an ingenious fusion of ancient and modern, possess the visceral strength and bewitching enchantment of places that are at once intimately familiar and wondrously new.

Three questions. Not much, I admit, for all the effort involved, but I’m convinced these questions can take us closer to understanding not only our present work, but how that work is transforming the very tradition to which it is indebted. As Louis Kahn used to say to himself, “How’m I doing, Corbusier?”

JM Cava is an architect in Portland, where he teaches, writes and designs buildings and gardens.
Shifting Towards Sustainability

Vancouver Design Competition Explores Architectural Form

Architects from the Pacific Northwest have been at the heart of the good Green Revolution. We were there at the start for Smart Growth initiatives; we constantly lecture our clients, our staff and ourselves about sustainability; we have devoted enormous amounts of time and money to LEED certification and training.

Despite this widespread support of the cause, many of us lag at times—doubts arise about the earnestness of all this policy and prohibition. Our intentions are focused, our craft is sound, but must going Green remain a civic duty for architects rather than a passionate embrace, a ritual obligation rather than profound inspiration? Come the return of good times for builders, will the progress of the past few years be lost if architects do not become excited about the design virtues of sustainability, not just its environmental benefits?

These were the questions that prompted a number of us Vancouverites to recently propose and conduct an open ideas competition called FormShift. Vancouver’s previous mayor, Sam Sullivan, had pushed through an ambitious EcoDensity Initiative in 2008 after several years of study and public meetings, while his successor, Gregor Robertson, has pledged to carry on making Vancouver “the Greenest city on the continent.” With these successes on the civic policy and urban planning fronts, eyes have turned towards architects: How will these good intentions turn into buildings?

FormShift Vancouver was devised to give maximum latitude for designers to do their best. As organizers, we wanted to remove every possible impediment for designers to explore what the new policy landscape means for changing architectural form itself—hence the name we devised for the contest. Entering the FormShift competition did not require professional licenses or academic credentials of any kind, despite being co-sponsored by the Architectural Institute of British Columbia. Our hope was to enable students and citizens to send in their ideas, and sure enough, non-professionals were among the 97 entrants, winning several prizes.

In addition, we threw away the zoning book and other land use controls, despite our other key sponsor being the City of Vancouver’s Planning Department. While land use categories, set-backs and so on were ignored, we did ask all entrants to look at green initiative documents, including our city council-ratified “Eco-Density Charter” (www.vancouver-ecodensity.ca) and its more recent follow-on, the “Climate Change Action Plan” (www.vancouver.ca/sustainability/climate_protection.htm.) These two documents (plus related publications such as the “2030 Challenge”) became the “soft program” for the competition—general statements of sustainability targets that did not include specific architectural solutions.

We charged everyone who entered a modest fee to discourage trivial entries, but in turn, committed to post every submitted design on our competition website (www.formshiftvancouver.ca.) Our jury included photo-based artist Stan Douglas, Vancouver planning director Brent Toderian, University of British Columbia Senior Campus Planner Nancy Knight and Canadian Architect Magazine editor Ian Chodikoff. (Seattle’s David Miller was unable to serve as juror as planned due to a family emergency.) Winners were announced April 15, and a lively public panel on May 6 brought organizers, jury and winners together for a discussion on “where to go from here?”

Now that the competition is concluded and my duties as one of the co-organizers are complete, here are some entirely personal comments and speculations about the winners.
1. Vancouver Primary Winner: “Re-Think Surfaces” by Sturgess Architects of Calgary

Calgary architect Jeremy Sturgess was deemed by the jury to have the best ideas in the arterial street “Vancouver Primary” category. Sturgess is one of Western Canada’s most highly regarded designers but has not done a building in the city of Vancouver since co-designing the Alberta Pavilion at EXPO 86. The Albertan was attracted to the potential of arterial streets as the focus of new green design, “We entered because the issues here are similar to ones we are dealing with in Calgary,” said Sturgess.

The Calgary team’s proposal, dubbed “Re-Think Surfaces,” takes on one of the tired clichés of sustainable design — the green roof — and invigorates it formally and spatially. “Future buildings must produce rather than consume,” states their explanatory text, “THINK of the building as a variety of productive SURFACES.” Their design maximizes exposed surfaces, proposing that all of these areas be put to work as decks, green roofs, gardens, bases for windmills and so on. The most intriguing form-making from the Sturgess team is the Swiss-cheese like holes and gaps set through the bulk of the project. These increase the amount of surface area available for other uses, while also maximizing the penetration of daylight deep into all corners of the project.

Their proposal rises eight to ten stories along the arterial street bearing underground rail transit, but eases down in steps towards the nearby single family residential areas adjacent. Formally, the proposal is an intriguing amalgam of a Soviet Constructivist-style apartment block, a motel village and a Latin American courtyard maze. The jury was drawn to the scheme because it demonstrates that building massing — the bulk and substance of medium-density construction — can be manipulated to advance sustainability aims. Not just clip-ons of adding solar collectors and green walls, not just invisible improvements to wall and window construction standards, but form-shifting of building massing itself inspires some bold architecture here.

2. Vancouver Secondary Winner: “Harvest Green” by Romses Architects

The turn to urban agriculture is also a feature in the winning scheme for the lower density “Vancouver Secondary” category. One of the proposals of Vancouver’s EcoDensity initiative was a city-wide initiative to redevelop the land in all single-family residential blocks that is taken up with mid-block lanes, flanking garages and parking pads (approximately one third of each residential city block). Laneway housing reduces sprawl (those new houses would otherwise be built in suburbia); recoups prior public investment in infrastructure like roads, parks and schools; and makes public transit more viable. After experiments in laneway housing over the past two decades, the planning department is now green-lighting and rolling out this strategy over much of the city.

As other architects propose ways of putting small houses where garages alone once stood, they would do well to carefully study Scott Romses’ plans. At the core of his scheme are “mobile nomadic prefab laneway homes,” an awkward phrase thankfully boiled down to “ModPods.” The recent fad in architectural culture for high-end modular housing has tended to locate them solely on bucolic or exurban sites and has resulted in little more than airy talk about affordability. The Romses scheme is ingenious in showing how modular constructions — those ModPods — can be packed tightly and in multiple variations along laneways, maximizing the use of urban land. Packing more livable dwelling units into existing streetscapes is much more the key to affordability than the last decade’s obsession with glorified mobile home technology draped with Neo-Modernist imagery in gallery showings and magazine coverage of new modular housing.

The core of the Romses proposal is a glorious rendering similar to the Sturgess scheme in that it shows how every nook and cranny can be devoted to green living. The designers demonstrate just how many themes and variations can result from tipping, turning and rotating their ModPods. The heterogeneity of the resulting lane streetscapes seems very right, an echo in miniature to the always diverse collections of styles and construction periods found along Vancouver’s residential streets.


The near complete flexibility of the “Wild Card” category inspired a scheme from two young architects who graduated a few years ago from Dalhousie University in Halifax, Jennifer Uegama and Pauline Thimm. Their FormShift competition win has since prompted them to found a new design firm — Go Design Collaborative. (New alignments of practitioners are a happy, if unexpected, side benefit of architectural competitions.) Their scheme has a critical edge, pointing out how a crucial bit of Fraser River-flanking land remains under-used, while at the same time proposing a radical hybrid of urban functions there.

The site they explore is just off Vancouver International Airport, as one passes over the North Arm of the Fraser River heading downtown. The designers thought the recent dedication of much of this area to bus barns was the wrong idea for an entrance portal to the city. Moreover, there is no civic urban design framework there, despite a rapid transit station opening in a matter of months. One reason city planners and politicians have not been able to come to terms with this site is Vancouver’s accelerating conversion of industrial lands and other workspaces into housing areas. The young designers were concerned that Vancouver succeeds brilliantly as a place to live, but increasingly fails as a city that creates new spaces to work. The Uegama-Thimm design proposes the retention of industrial uses on the ground plane but carpets them with an undulating green roof. This artificial landscape of green-topped industrial lands (even bus barns could go in there) is flanked at its edges by multi-use towers taking advantage of this riverside close to the airport. Dencity is a clever and very timely proposition.

Getting Things Built

What now?

The May 6 Vancouver public panel about the FormShift competition was filled with suggestions about how to take the ideas generated by winners and other entrants and push them towards constructed reality. For his part, planning director Brent Toderian has already shown the results to the city council and is using them in meetings with community groups and other city departments as a way of prompting needed debate about what is possible. Developers at the meeting saw potential in some of the ideas, and there is no doubt that architects will be borrowing each others’ notions of what new forms are appropriate to emerging sustainability concerns. FormShift Vancouver was one “open ideas competition” that lived up to its name.

Form your own conclusions about which schemes are truly innovative, which are unduly derivative and which might even be examples of “greenwash” by going to the competition website, www.formshiftvancouver.ca.
Meditations on the Underbelly of the Architectural Profession

Ron van der Veen

No rose-colored glasses, no beating around the bush, no corporate speak, no false hope from Side Yard. These are truly stressful times in the architectural profession, most likely the worst in the last 75 years. There are few architects left who can say, “I’ve been through the big one of the 1930s;” but many of us might be talking to our grandchildren in the future about the “big one of 2009.”

Since graduating from the University of Oregon in 1981, I have been through a number of recessions and economic downturns and have experienced the underbelly of the architectural profession. Kelly Rodriguez, our most empathetic editor, asked me to share a few of my war stories to give us all some perspective and maybe a little hope.

1982
Right after I graduated from the University of Oregon, our country was in the midst of one of the biggest economic downturns of the century. The American car and lumber industries were particularly hard hit. Flint, Michigan and Eugene, Oregon were competing for the highest unemployment rates in the country; both cities were hovering at around 15%. For some inexplicable reason (a woman), I decided to stay in Eugene to beat the odds and find an architectural job. After a month of searching, I ended up as a draftsman for a house builder, which only lasted two weeks. Not only could I not find another architectural job, I couldn’t find work anywhere, even at a fast food restaurant.

Luckily, I had bought my car from a friend for $50, was crashing at a buddy’s house for almost free and had no college debt at the time (college was still pretty cheap in those days!). After running out of ideas, my friend suggested selling drawings and paintings, and I became a door-to-door house renderer! Yes, I swallowed my pride and walked the rich neighborhoods of Eugene offering to do drawings of houses. I would draw big houses, small houses, beautiful houses and ugly ones. I really didn’t care. I just drew them as fast as I could and charged $50 a rendering—framed! Doing about two or three a week, I barely made enough to keep my Pinto Station Wagon on the road and food in my belly. This business lasted for several months until I finally gave up and did the only respectable thing a young architectural intern could think of: I quit the profession and moved to Spain.

1986
After living the Latin life, I decided to return to the states and architecture. But it was just my luck that I came back right at the beginning of another economically stressful time. I did find a job as a draftsman/blueprint runner/receptionist for a firm in Seattle. I’m not sure if any of you have ever attempted all these tasks simultaneously, but take my word for it that they are tough to juggle. I still remember being on a deadline and getting a call from Martin Selig. I guess I didn’t answer the phone with enough pleasantry’s because he complained to my boss that the receptionist was grumpy. Since I knew it was Selig, it didn’t bother me too much. This job paid so poorly that when I finally did get laid off, I felt like I was in corporate hell. After an hour of this, I did what no one else had the cajones to do: I fired her and mounted a boom box with some funky holiday sounds.

After New Year’s our staff whittled away to about half of where it was six months before. I could feel the impulse of a strip mall relapse but stood my ground and weathered the economic storm.

2002
It was post 9/11, and the country was in a state of grim shock. Again, I had to will myself away from the temptation of a retail reversion. One of my few projects that year was designing a new arts center on the Edmonds Waterfront. Jon Rader and I poured our hearts into the design, donating literally hundreds of hours to make it a truly signature project. Of course, in our eagerness to push ahead, we neglected to get a contract signed.

Everything started to unravel the day I presented the project to the art organization’s board of directors and realized that they had no idea the president had given us the go-ahead to design the project. It was then that they also admitted they were essentially broke. The president was eventually canned, and the board made a deal with me I couldn’t refuse. They offered to pay our firm half the money they raised each month or $200, whichever was more. This was great until after several months a pattern emerged: The checks were never more than $200. One day our accountant sat me down and did the math. She showed me that at the rate the checks were coming in, it would take the nonprofit almost 30 years to pay us for our work to date. Eventually the checks stopped coming at all, and I became the butt of a sea of business jokes that continue to this day.

2009
So here I am again. I don’t want to admit I’m slow, but I am writing this installment of Side Yard during office hours. Yeah, it’s this or the March 2004 issue of Architectural Record. The stress in the architectural profession is palpable. No job is certain, no project is a given. As bad as it is, the last economic downturns have taught me that we always get to the other side. We may have scars to show, but we also have past-tense stories to tell.

It’s the underbelly of this profession. It’s as ugly as a strip mall parking lot. Maybe even one that I designed...

Ron van der Veen is a principal with Mithun and has a steady job... for now. ronv@mithun.com
4Culture celebrates the 30th anniversary of Earthworks: Land Reclamation as Sculpture, the historic symposium that championed the ecovision movement. In 1979, the King County Arts Commission challenged eight artists, including Robert Morris and Herbert Bayer, to design projects which would reclaim industrial land. John Hegre and Andy Cao continue the tradition in our area.

Clockwise from top left:
© Robert Morris, Johnson Pit #30, 1979, SeaTac, WA
Photo: Colleen Chatter
Photo courtesy of the artist
© Andy Cao, Pillow Field (proposal), 2009, White Center, WA
Image courtesy of the artist
© Herbert Bayer, Mill Creek Canyon Earthwork, 1982, Kent, WA
Photo courtesy of the artist

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Feet on the Ground

Yesterday a friend helped me move a picnic table and prop up some planter boxes filled with vegetable starts. I wanted them to be at least a foot off the ground to discourage slugs and snails and to make them easier to plant, water and harvest. For props we used some scrap 2x4s I had ready to split for kindling and some scrap 2x6s he had left over from building his cabin. He cut each of them to 18”, made four stacks of five each, and voilà, the two boxes were neatly hovering above the patio at just the right height.

Opposite this little patio is my favorite garden bed, formed when we excavated to create a new perimeter foundation wall for this 1923 cabin. I took advantage of the resulting mound of dirt to create a bed that is raised by about 18”. It captures the heat from the limited morning sun and holds it in a way the ground level beds can’t. It’s a permanent home for an “Iceberg” rose, a wintersweet (Chimonanthus praecox), a winter hazel “buttercup” (Corylopsis pauciflora), and a hydrangea (H. arborescens), all of which provide both flowers and fragrance through much of the year. Seasonally it accommodates garlic, sugar snap peas, parsley, cilantro and kale, among others. They benefit from regular doses of cooking water from pasta and vegetables and rainwater captured from a nearby downspout. Composted leaves, kitchen scraps and an annual top dressing of chicken manure round out the soil enhancement so crucial to growth.

A cedar-chipped path leads past another garlic bed and around the north side of the cabin, which is banked with unusual variegated leaf rhododendrons whose blooms are fragrant and names long forgotten. To be true, paths must evolve. We and the other animals create them, and they are left to the gardener to formalize. We can add a bit of charm here, a bit of mystery there, but stubbornly imposing our will upon these little landscapes is futile. At the north west end of the cabin, a curve in this particular path beckons to the street side garden; it is dominated by two aging and very productive filberts whose fruit is harvested completely by the perfectly timed arrival of the Stellar Jays. Some Rosa rugosa (“snow goose”) and a volunteer ground covering of wild strawberries complete the picture.

The entrance to the cabin is flanked by very rambunctious male and female hardy kiwi (Actinidia arguta), which despite absolutely no encouragement and occasional severe pruning, produce abundant sweet fruits in late summer. Three apple trees (Akane, Chehalis and Macoun), a Brooks plum and a Kribich nectarine provide ample winter fruit and bring us back to the little patio where we began our tour of one small island garden, home to many birds, a small fish pond, the neighbors’ predatory cat — some conflict here — native and non-native plants, struggles with wind, weather and invasive species, and a world of promise and learning.

Robin Woodward is a retired Seattle restaurateur, a lifelong gardener who has been working her Orcas Island, WA plot for the past 20 years, an active restorer of old buildings, and one who is passionate about small footprints: she adds less than 15 gallons of non-recyclables and reusables to the landfill each year and is shooting for zero in 2009.
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