

Productive Parks: Sustaining Communities

Laura Haddad and Marieke Lacasse

Presented at the 2009 WASLA Conference, Seattle, WA

April 3, 2009

Introduction

Parks in urban environments provide an essential outlet for residents as places for walks, gatherings, and recreation. Central to how we conceive of parks is their relationship to nature. Throughout the 20th century, this manifested itself in the design of parks that re-created wilderness in an urban setting. Over the past few decades, however, that model has shifted as we have placed more focus on contextual ecological design. Sustainable practices including use of drought-tolerant and native plants, low maintenance lawns, bioswales and storm water management, high-efficiency irrigation, and organic gardening practices are all very common. But where can we push further, to have the most valuable impact on our future parks?

We are proposing to reinvent parks as laboratories of innovation that operate across boundaries of environmental, social, economic, and aesthetic agendas; synthesizing nature and artifice, utility and recreation. For most fruitful results, landscape architects and engineers, artists and scientists, parks departments and other city agencies should collaborate and cross-pollinate to create artistic machines and working landscapes that act as mechanisms of sustainable energy. The concept of “productive parks” put forth herein is that of parks as self-sustaining testing grounds that inspire communities to further action.

Seattle has layered functionality into its parks for decades through water utility and food production projects. But as renewable energy is now a necessity, we must strategize new programs for integrating green infrastructure into our parks, to make them more “productive.” This article will look at these strategies; both in general terms and in particular reference to the city of Seattle.

History of the “Productive Park” Movement

Like most movements of landscape architecture, the “productive park” has roots in Olmsted. In his conception of parks as a system of urban infrastructure, he sited and designed them to perform as city lungs, or “environmental cleaning machines” in the words of Elizabeth Meyer. Meyer also calls his landscapes agents for “urban social and environmental reform” that “responded to and then altered the processes modernization and urbanization.”¹ Olmsted’s philosophy is integral to the productive park, particularly as a key component in the current race to save the environment.

Also of importance to productive parks is the theory termed “systems aesthetics” by post-formalist art critic Jack Burnham in his seminal 1968 manifesto of the same title, in which he professed a paradigm shift in which the aesthetic message of art is inseparable from the systems revealed.² Published just one year later, Ian McHarg’s highly influential *Design With Nature* applied this thinking to landscape architecture, putting forth methods of creating functional ecological landscapes using science and technology. As environmentalism has grown as a political and social movement, so has systems aesthetics as a design ideology.

In his introductory essay to *The Once and Future Park*, a collection of essays and proposals based on a 1992 exhibition at the Walker Art Center looking at new models for public parks, Herbert Muschamp described

¹ Elizabeth K. Meyer, “Sustaining beauty: The performance of appearance,” *Journal of Landscape Architecture* (Spring 2008), p. 6.

² “Systems Esthetics,” *Artforum* (September 1968). In *Beyond Modern Sculpture: The Effects of Science and Technology on the Sculpture of this Century* (New York: George Braziller, 1968), Burnham elaborates to describe “a refocusing of aesthetic awareness – based on future scientific-technological evolution – on matter-energy information exchanges.” p. iv.

parks as “fertile experimental ground” for exploring the relationship between nature and culture:

“Perhaps no other type of project today offers a more concentrated opportunity for specialists to experiment with the possibilities of cross-disciplinary design... The design of a park should bear the traces of unrestricted exchange between ordinarily segregated fields of knowledge. As such, they become models for cross-disciplinary collaboration elsewhere... What happens in parks in the near future will have not only practical but also symbolic value, as a sign of what we can accomplish in the building of an emerging global culture.”¹

Muschamp concludes that a park can create a place for us to engage in a “collective act.”

In response to this appeal, we are here looking at hybrid landscapes that serve as models for 21st-century parks. We will first describe four design typologies that channel natural and cultural phenomena toward utility, then two case studies where they are employed.

Typologies for productive parks include natural drainage systems, urban farming, renewable energy, and community energy. These will be described through analysis and investigation of Seattle’s city parks.

Natural Drainage Systems

Almost a third of the city of Seattle has no stormwater drainage system, but a network of ditches and culverts. In these areas near the south and north city limits, polluted road run-off makes its way to small lakes and streams, eventually reaching Puget Sound and affecting the fragile equilibrium of fauna and flora present. “When it reaches the creek this stormwater scours out the gravel where salmon spawn and washes away riparian vegetation.”² Communities have pressured the city to control flooding from storms, wanting solutions for future events. In 2001 Seattle Public Utilities

(SPU), in a collaborative effort with SDOT and the residents of Second Avenue NW, completed a pilot project named Street Edge Alternatives (SEA Street). It incorporated an open drainage system where “rainwater was slowed and stopped at the source, in private yards and parking lots along the city’s streets, and allowed to soak into the earth.”³ SEA Street, located in the Pipers Creek watershed, is composed of roadside swales built using Low-Impact Development techniques to store and infiltrate storm water and break down pollutants. A huge success, SEA Street has evolved and expanded into a number of other natural drainage projects within SPU, including the Broadview Green Grid, which spans 15 blocks of a residential neighborhood just south of SEA Street; the Pinehurst Green Grid in the Lakecity area, and many others.

While there may be a higher annual maintenance cost for SEA Streets than for street with a closed drainage system, the cost of integrating natural drainage is almost 50% lower.⁴ There are numerous other positive aspects of this technology, particularly as related to goals for productive parks. These include: reducing impervious area, improving water quality through biofiltration, recharging the water table, increasing community interaction, and providing public education.

SPU has also been implementing natural drainage systems in park settings. Portions of a number of urban creeks have been day-lighted and restored, and they now channel stormwater. Seattle Parks and Recreation has teamed with SPU in some cases, such as in implementing the Longfellow Creek Trail. At nearby High Point, in collaboration with Seattle Housing Authority, SPU used bioswales along roadways and in pocket parks to treat about 10 percent of the watershed feeding Longfellow Creek.⁵ Just

¹ Herbert Muschamp, “Looking Beyond Vision,” *The Once and Future Park* (Minneapolis: Walker Art Center and Princeton Architectural Press, 1993), pp. 13-14.

² Seattle Climate Action Now, Seattle Public Utilities, *Seattle’s Natural Drainage Systems*, p.6.

³ Seattle Climate Action Now, Seattle Public Utilities, *Seattle’s Natural Drainage Systems*, p.7.

⁴ Per Seattle Public Utilities’ Asset management life-cycle cost analysis, Seattle Climate Action Now, Seattle Public Utilities, *Seattle’s Natural Drainage Systems*, p.15.

⁵ http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Natural_Drainage_Overview/index.asp

completed are improvements at Marra-Desimone Park, another effort between SPU and Seattle Parks. Here bioswales infiltrate storm water and prevent flooding in the low-lying neighborhood of South Park.

While Marra-Desimone Park's bioswales are a great example of natural drainage in a park, two exemplary projects just south of Seattle conceive of natural drainage as a park. In Kent, Herbert Bayer's 1982 Modernist masterpiece *Mill Creek Canyon Earthworks* sculpts a 2.5-acre landscape at the mouth of Mill Creek with berms and excavations that slow water as it drains through the canyon during storm events. The resultant park is a beloved community-gathering place, hosting performances, festivals, and exhibits throughout the year.



Community Event at Mill Creek Canyon Earthworks

The *Earthworks'* fusion of art and infrastructure is taken a step further at Lorna Jordan's *Waterworks Gardens*, an 8-acre public artwork/park next to King County's South Treatment Plant in Renton, completed in 1996. The ponds and wetlands of *Waterworks* naturally filter up to 2 million gallons per day of stormwater runoff coming from the treatment plant's 50 acres of impervious surfaces. After passing through *Waterworks*, the treated stormwater flows into Springbrook Creek.

Urban Agriculture

The current economic crisis and unemployment leading to poverty and hunger are triggering a return to nature. Other factors such as reducing transportation distance to lower fossil fuel dependency and resource consumption, and procurement of organic produce at a reasonable

price are important to many. "The biggest crisis in our food system is the lack of access to good, healthy, fresh food, for people living in cities, particularly in low-income communities...Urban agriculture work is one of the most powerful solutions, because it brings food directly into the communities."¹ People want to grow their own vegetables to increase food security, which is leading to an equitable distribution of access to food. "Urban Agriculture is an industry located within or on the fringe of a town, a city or a metropolis, which grows or raises, processes and distributes a diversity of food and non-food products, re-using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area."²

Seattle has several wonderful examples to inspire a future crop of public urban farms, for those who do not have property suitable to growing food. Located in the lower Duwamish river valley, in the South Park neighborhood, Marra-Desimone Park, better known as Marra Farms, is one of the last morsels of agricultural land in Seattle. Marra Farm was founded by an Italian immigrant, Carmine Marra and operated by his family for almost 60 years. "The land surrounding Marra Farm, including the east side of the property, was owned by Joe Desimone, an Italian farmer who eventually acquired and ran the Pike Place Market in the 1940s"³ Marra Farm was purchased by King County in 1980, and is now run by the Marra Farm Coalition. The Coalition includes many non-profits with various mandates. Lettuce Link grows a .75 acre plot for South Park food banks. Seattle Youth Garden employs homeless and at-risk youth who sell their produce at the Columbia City Farmer's Market and receive a share of the proceeds from their cooperative market garden business. The City of Seattle Department of Neighborhoods Pea-Patch Program runs 20 plots at Marra; and the Mien Community Garden practices traditional Mien agricultural techniques there,

¹ -Anna Lappé, co-founder with Frances Moore Lappé of the Small Planet Institute.

² Resource Centers for Urban Agriculture, 2008

³ Marra-Desimone Park Long Range Development Plan, J.A Brennan associates, PLLC, p.4.

the food generated by which goes to feed the families of the gardeners and Mien elders.

The City of Seattle's Department of Neighborhoods manages an extensive Pea-Patch program. It currently has 72 community gardens that are very popular within the city, many of them with waiting lists of more than a year. The pea-patch parcels are on various types of city property: parks, right-of-way, schools, and parcels that were vacant or unused. As the city population and density increases, the need for community gardens and pea-patches will also increase. This type of development on public lands is highly productive, particularly when food energy can be coupled with other land uses, such as power lines. Inherently, a pea-patch leads to social productivity through the sense of community it generates.

It seems that in the years that have passed, there has been a strong movement against planting fruit trees in urban settings, because they are messy when they drop their fruit. Encouraging the installation of orchards in public parks would be another step in the right direction.

Established in 1995, The Edible Schoolyard is a one-acre garden and kitchen classroom at Martin Luther King, Jr. Middle School in Berkeley, California. Their program was started by The Chez Panisse Foundation, a non-profit organization founded by chef and author Alice Waters. "The Foundation envisions a public school curriculum that includes hands-on experiences in school kitchens, gardens, and lunchrooms; and provides healthy, freshly prepared meals as part of each school day."¹ The goals of the program are to bring fresh, low-fat, low-sugar, locally grown, organic foods to schools. Students learn about the real world, the value of work, and the value of play within the context of their work in the garden. They are engaged and interested. It is a sensory place, full of tastes and smells. The students become more willing to experiment with food, and eat a bigger variety of food as a result of the classes. They make their own compost; and learn about propagation, pollination, and other means to

grow food well. They then move on to kitchen classes, where they learn about cooking, food preparation, compatible flavors, and how to combine them to make savory, healthy dishes.

Inspiring the nation, First Lady Michelle Obama built an edible garden at the White House in March 2009. This gesture showed a national commitment to sustainability and access to fresh, healthy food for everyone. "Especially in these difficult economic times, the garden can serve as inspiration to families everywhere to grow their own food, which can provide a significant cost savings on fresh, healthy produce."²

In the context of productive parks, urban agriculture could take a step further and incorporate greenhouses to round up their harvesting season. Historically, conservatories were constructed in parks to grow tender and rare plants, tropical plants, or to showcase flower displays. But what about building working, productive greenhouses in public parks, and all elementary schools? Seattle's only greenhouse is a conservatory at Volunteer Park for ornamental plants. Seattle Parks and Recreation might take the lead from Seattle Schools, who have been installing more and more greenhouses at schools in recent years.



Orca Elementary School greenhouse

Orca Elementary School has just built a new greenhouse and garden, including: an underground cistern and water catchment system, solar panels, plant beds for a food bank, and a composting system. Their goals are in line

¹ <http://www.chezpanissefoundation.org/mission-vision>

² <http://www.edibleschoolyard.org/white-house-garden>

with the Edible Schoolyard's mission of environmental education and social justice. Orca composts all of the school's lunch waste, grows native plants for restoration planting efforts by the students, and is making steps toward implementing a program of growing food for the school cafeteria. The school organizes a vegetable start sale that funds efforts in the program.

Renewable Energy

President Obama's Stimulus Package includes provisions that make converting to renewable energy systems affordable and sustainable for US citizens. On a macro-scale it aims to rebuild the transmission lines, batteries, and generators of the electric grid to store and transfer renewable energy, while on the micro-scale it offers incentives like rebates to property owners for purchases of solar systems.¹

Seattle City Light's Green Power webpage states "Seattle's long tradition of clean, renewable energy began in 1905 with the Cedar Falls hydroelectric plant." Today, ninety percent of Seattle's energy is produced by hydroelectric plants, while wind power makes up another three percent of the city's fuel mix.² Since it is most efficient to generate power close to the place of its consumption, and because mechanisms of alternative energy such as solar and wind power require more space than those of non-renewable resources, it is time to strategize new places for energy production closer to and within city limits. With Seattle Parks and Recreation being the largest landholder in the city, it makes sense to use that public property for energy production when it is compatible with other park uses.

While we can envision wind turbines on the southwest and northwest bluffs of Discovery Park, poised high above Puget Sound to catch strong prevailing winds and power the city, at this point in our transition to green power it is necessary to implement it incrementally. For

¹ With so much energy infrastructure going in, "green industrial parks" to house suppliers and contractors in the new green economy are being built in places like New York and Los Angeles, sometimes on city property.

² <http://www.seattle.gov/light/green/greenpower/>

starters, there are numerous pole lights on the market that combine solar panels and wind turbines to power pedestrian and vehicular lights. Seattle Parks has already teamed with Seattle City Light's Green Power Program to install solar panels at several parks.³ Jack Brautigam, City Light's Renewables Program Manager, says there is much opportunity for this, but costs are the limiting factor. However, he contends that it is often cheaper to put solar panels on a building than extend utilities to a park site.⁴



Rendering of wind turbines at Discovery Park

At the Carkeek Park Environmental Education Center, solar panels were installed on both the roof and poles in the parking lot. Two kilowatts were purchased by the Parks department and another two were provided by the City Light Green Power Program. The panels produce 58% of the energy consumed by the building, and the building achieved LEED silver certification.⁵ However, according to Seattle Parks Project Manager Dan Johnson, the demonstration value of the project is much more important than the energy it is producing. Interpretive information about the installation, aimed in large part at children (Parks' largest demographic) creates awareness about renewable energy within the

³ Since its inception in 2002, the Green Power Program has completed 24 solar projects at Seattle schools, parks, libraries, and other public places and produced over 130,000 kilowatt hours of power. The program is funded through customers of Seattle City Light who voluntarily elect to pay a higher rate on their power in order to fund the integration of renewable energy into the Northwest grid.

⁴ Per conversation between Laura Haddad and Jack Brautigam, Seattle City Light, on 3/25/09.

⁵ Per conversation between Laura Haddad and Dan Johnson, Seattle Parks & Recreation, on 3/25/09.

community, which helps grow the local market for solar and other green technologies.¹

If education is a priority of productive parks, more attention should be paid to the presentation of these devices. Photovoltaic panels could be integrated into parks' landscapes and architecture with more sensitivity to aesthetics. There is some interesting work being developed by artists who are synthesizing solar and wind energy into their work, functionally as well as conceptually. Along a bike path in Austin, Texas artists Mags Harries and Lajos Heder are building *SunFlowers*, a series of large-scale sculptural "plants" that use crystalline photovoltaic cells as the skin for their petals. Productive parks need this type of innovation in form, concept, and technology for demonstrations that include photovoltaics, wind turbines, and even biofuel production (a potential sidebar of urban agriculture). Such installations should merge aesthetics and function to define unique park spaces while contributing to the energy grid. This strategy harkens back to Olmsted, who believed that the appearance of a landscape had a strong bearing on the psyche of those experiencing it.

Brautigam says that wind power can be more difficult to integrate into parks than solar power. Wind is not as reliable as sun, and turbines require building permits. That said, it is not difficult to imagine an alternate version of Doug Hollis's 1983 *A Sound Garden*, an art installation at the NOAA campus adjacent to the north end of Warren G. Magnuson Park, as an energy-producing artwork. *A Sound Garden* includes a grove of 21'-high steel columns supporting organ pipes that constantly rotate to face the wind and generate a musical sound as wind passes through them. Much of the resonance of the artwork is in its capacity to tune viewers into the power of the wind, and make them aware of its effect on the landscape. Wind turbines in a similarly lyrical setting would have that same ability, which verges toward the educational; layered onto it would be the function of energy production.

¹ Per conversation between Laura Haddad and Dan Johnson, Seattle Parks & Recreation, on 3/25/09.

Community Energy

In many successful instances of community-initiated parks, community energy can be both the catalyst and bi-product of a park. Through this dynamic a type of "social productivity" is generated, which is a fundamental aspect of the productive park.



Winter Solstice gathering at Fremont Peak Park

Seattle's Fremont Peak Park is an excellent example of how community energy can create a park, and in the process enlarge its own power. Located in the north end of Fremont at N 45th Street and Palatine Avenue N, this half-acre parcel has an amazing view to the west, from downtown Seattle to the northernmost tip of the Olympic Mountains, including Ballard and the Ship Canal. Previously it was owned by a citizen that decided to sell it back to the city to create a park. A dedicated community group led the effort of procurement of the parcels in conjunction with the Department of Neighborhoods, and in 2003 the park property was purchased by the city. The design team, GGLO (lead landscape architect) and Haddad|Drugan (lead artist) facilitated a public process for the schematic design and art exploration of the project.

The community meetings were friendly and positive. Residents agreed on an initial vision of a 'walk-to urban oasis' with passive program elements that would foster community gatherings. This vision led to a design concept built upon that vision. The Fremont neighborhood, self-proclaimed "center of the universe," was the perfect setting for art and landscape designed to attune people to the

natural and astronomical rhythms of life: the solstices and equinox, and phases of the moon. The plan is based on reinforcing existing natural zones and organizing them in a sequence of discovery that goes from street to view. Art is weaved into this sequence through the overarching myth of the Minotaur. Walls in the park retain grade but also symbolize remnants of King Minos' maze, framing the park and its components. A "spool of silver thread" begins at the entry, follows the main promenade, and culminates in the view terrace by pointing to the sunsets at winter and summer solstices.



Planting party at Fremont Peak Park

Community stewardship at Fremont Peak Park began when people first envisioned the future park. There were three existing houses on site, and as soon as these were demolished neighbors started to weed and maintain the site. Some community members set up mini-nurseries in their backyards to grow native plants for the park. This stewardship continued over the years and when construction was almost complete, plantings parties were organized. The park is not irrigated, and neighbors have implemented a schedule of hand-watering as needed during the dry summer months.

Through this process many connections have been forged, from a small child remembering which plant he has planted and checking it each time he comes to the park, to neighbors meeting and lending each other a hand, to the satisfaction of work well done. The park has become an integral part of the community and is a beloved stop on routine walks. Community gatherings and small concerts have taken place here, along

with weddings and picnics. Perhaps most emblematic of the synergy between park and community is in how the community has initiated a tradition of solstice celebrations at Fremont Peak Park. Where the community's motto first inspired the design concept, now the design concept has inspired the community, and through that process enlarged the meaning of the motto. This holistic transfer of energy back and forth between place and community is essential to a productive park.

Case Studies

The following section looks in detail at the making of two Seattle city parks that emphasize different typologies of productivity, at varied scales.

Volunteer Park

One of Seattle's oldest parks, Volunteer Park is an early example of a park that combines utility, art, and even reclamation. In 1876 the city purchased the original forty acres that became the park from a sawmill engineer. The land had been previously cleared of its large trees, leaving behind stumps and small trees. By 1893 the city had cleared six acres and planted a nursery with a greenhouse and hotbed, making its first program element productive! Over the next five years, lawns, gardens, paths, tables, and swings were developed.

Concurrently, the Seattle Water Department built a reservoir in the center of Volunteer Park, completed in 1901. The hilltop aspect of the park made it an excellent location from which to provide gravity-fed water to citizens. The reservoir was part of the initial phase of the Cedar River Water System (the watershed that started providing the city's power around that period).

Local archives include images of an "experimental reservoir" built on site in preparation for constructing the 20-million gallon reservoir there today, as well as an inventive trolley that carried batches of concrete into the basin for placement. These innovations recall Muschamp's description of parks as "fertile experimental ground." In the years before 1900 creating a large basin out of cast-in-

place reinforced concrete would have been considered experimental.



Volunteer Park construction, c.1899

Between 1904-1912 the Olmsted Brothers made detailed plans for Volunteer Park, including drives, paths, gardens, wading pool, and a conservatory. Already in planning phases by the Water Department at the time of the Olmsted's arrival in Seattle was an 833,000-gallon standpipe adjacent to the new reservoir to provide additional gravity pressure for delivering water to the city. Completed in 1906, it was the Olmsteds who suggested integrating into the water tower a staircase leading to an observation deck, layering a community amenity onto the function of delivering water.

Volunteer Park's conservatory, wading pool, and other structures were completed by 1912, and made the park a much beloved place to Seattle citizens. When in 1918 the Water Department wanted to add a second reservoir to the park, the public opposed this, wanting to preserve the park as a place for people.¹ This legacy of balancing community and utility is critical to the success of a productive park. Volunteer Park includes elements of both utility and community that make for a productive park; but mostly, with the exception of the water pipe turned observation tower, these program elements are kept separate throughout the park. Keeping in mind that the park is over a century old, it is a great historical example of city departments

¹<http://web1.seattle.gov/dpd/historicalsites/QueryResult.aspx?ID=115677266>

working together to integrate functionality into city parks.

Bradner Gardens.

The second case study, Bradner Gardens, is a fantastic example of new green infrastructure at a small scale that layers together myriad elements of community and utility.

The process of developing this beloved garden started in 1994, when the site got slated to be redeveloped as housing. A good portion of the site was public land, and a community group led by Joyce Moty decided to ask the city to purchase the remaining parcels and make it a park. They hired a landscape architect and gathered 24,000 signatures, and the city accepted the proposal.

Little-by- little, grant-by-grant, Bradner Gardens has taken shape through continued community stewardship. Now the park boasts a community building, Bradner Building, that houses a community meeting room, a restroom and tool storage. The butterfly roof collects water that goes to a cistern, and has solar panels that contribute power to the city grid when no electricity is needed for the building. The panels were, again, the result of City Light's Green Power program. The park has a stormwater swale that goes to a seasonal pond, and a windmill. The community is excited about starting a bee hive this year.



Bradner Gardens; photo by Joyce Moty

The main attraction of the park, its community garden (a gem of the city's Pea-Patch program),

has 61 pea-patch plots and is layered with social uses. Demonstration gardens by Master gardeners feature plants that attract butterflies & hummingbirds; enchant children; have pronounced fragrance, winter interest, or other sensory value; work in conditions of shade or low water; and are northwest native.

The gardens are constantly used and looked at for gardening ideas by the community. Many events occur at Bradner, from plant sales to workshops, Easter egg hunts to concerts. Many organizations shape its event calendar: King County Master Gardeners, Seattle Pea-Patch Program, Seattle Tilth Association, and WSU Cooperative Extension Master Urban Gardeners; as well as the Mount Baker Preschool and the community at large.

Using various routes and funding mechanisms, the Bradner Gardens community group was able to phase its master plan and see its vision through. It is now a space where a variety of people can come together and share common goals. It is also an amazing education tool, demonstrating that low impact development techniques can and do work.

Productive Parks: Sustaining Communities. Joyce Moty's perseverance in building Bradner Gardens as a productive park points to the energy generated as a community and its city push each other to cross into new frontiers of park development. What begins as one citizen's idea might then change how one person in a city agency thinks. That person in turn can be inspired to gather forces in his or her agency, and begin a new program that will then affect a much larger group of citizens. Through this process a new paradigm of thinking may evolve. In this grassroots model, energy will start to grow in a park, and as it builds, the values instilled in the park will infuse the surrounding neighborhood and city and transform it into a place of vibrant green infrastructure centered on community.

Compared to single-purpose power plants where land is devoted only to energy production, parks might not necessarily be the best energy makers, simply because they also have to perform as

inhabitable places for people. But it is exactly this multi-purposing that makes them a valuable asset in the shift of society toward a more systemic green infrastructure. The education and awakening brought about by coupling social productivity with energy productivity is critical and invaluable. As the common open space Olmsted promoted, parks that contribute to the citizenry on multiple levels are a key part of the revolution toward green infrastructure. Park systems already exist as the green structures of our cities. Let us develop new tools that expand their capacity to help enact a "greening" of the collective consciousness.

Marieke Lacasse is an Associate at GGLO, and has over 10 years of experience designing parks, trails, streetscapes and community places that work for people. She incorporates innovative approaches and open communication with every project. Her most recent park projects involved strong community-based groups, playful and unique design concepts and inspiring artist created elements.

Laura Haddad of Haddad|Drugan is an artist and landscape architect in Seattle who operates in the realm of public art, creating unique environments that strive to unearth and invent meaning in the built environment. Fusing the conceptual with the functional, her past work includes collaborations on parks, plazas, transportation and utility infrastructure.