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SITELINES

Landscape Architecture in British Columbia



Inspired by Nature

Inspired by Nature | MVRP : Protecting natural areas and connecting people to nature | We Must Remember The Importance of Native Plants | Nature as Culture: increasing access to nature in Vancouver | How Nature can change the Urban Environment | CSLA Fellows Profile: Bruce Hemstock, Kim Perry

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The purpose of Sitelines is to provide an open forum for the exchange of ideas and information pertaining to the profession of landscape architecture. Individual opinions expressed are those of the writers and not necessarily of those of the BCSLA.

Inspired BY NATURE



Guest Editor — Margot Long, MBCSLA, FCSLA
Principal, PWL Partnership Landscape Architects Inc.

Some years ago, our office did a visioning session to help define our office and our direction. We collectively came up with, *Making places. Engaging people. Inspired by nature.* I thought that a good theme for this Sitelines

Edition would be Inspired by Nature, because Metro Vancouver is immersed in natural settings and our urban areas have great connections to nature, yet with the development pressure we are losing some of these important areas. It is vital that with all urban development we keep our connection to nature. This edition touches on the importance of that as well as how that is being achieved.

In this edition we also are profiling two new CSLA Fellows that came from the BCSLA, Kim Perry and Bruce Hemstock. **SL**

*Look deep into nature, and
then you will understand
everything better.*

Albert Einstein

In this Issue:



Vancouver Convention Centre roof
Photo: Margot Long, PWL Partnership
Landscape Architects Inc.

Inspired by Nature	3
Inspired by Nature	5
MVRP : Protecting natural areas and connecting people to nature	7
We Must Remember The Importance of Native Plants	10
Nature as Culture: increasing access to nature in Vancouver	12
How Nature can change the Urban Environment	14
CSLA Fellows:	
Profile of Bruce Hemstock.....	15
Profile of Kim Perry	17

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INSPIRED BY Nature

— Patrick Mooney, MBCSLA, FCSLA, FCELA



Top: The Quarry House in Summit County Utah, by Design Workshop Inc. Blonde Ambition Grass, Yarrow and Staghorn Sumac evoke the native plants of the regional landscape. Photo permission Allyson Mendenhall, Design Workshop Inc.

Bottom: Piet Oudolf's Millennium Garden at Pensthorpe Waterfowl Park in Norfolk demonstrates the "wild" style of planting design that is characteristic New Wave or New Perennial Movement, of which Piet was the formative influence. Photo permission Imogen Checketts.

In 1871, Frederick Law Olmsted claimed that parks counteract "the special evils that result from the confinement of life in cities" and "reverse that which is commonly established by the ordinary things of town" (Olmsted, p.107, in Schuyler 1986). But, the beliefs that nature inspires us and that being in nature is good for us occurred centuries before Olmsted's remarks and was common to many ancient civilizations (Carroll 2003, Ward Thompson 2011). Modern researchers have now demonstrated, what the ancients, and most landscape architects, understood intuitively. Researchers from a variety of disciplines have identified contact with urban nature as important to human health and wellbeing. Nature not only inspires us, it leads to better cognitive functioning, reduces stress (Ulrich et al. 1991) and improves a very wide range of health outcomes (Maas et al. 2009). For example, Japanese researchers report that forest bathing or *shinrin-yoku*, improves mood and reduces stress. The researchers measured the stress hormone cortisol before and after students walked for fifteen minutes along a path or sat and watched activity, in either a forest or urban environment. The students who experienced the forest bathing had significantly lower cortisol levels, heart and pulse rates and reported feeling calmer and more refreshed than the students who experienced urban conditions (Park et al., 2010). Another study indicated that playing in the dirt may benefit human quality of life. Patients, undergoing chemotherapy, who were injected with the common soil bacteria, *Mycobacterium vaccae*, were happier, had better cognitive functioning and higher quality of life than those who received a placebo (O'Brien 2004). Researchers have also shown that the indicators of landscape preference are correlated with indicators of the restorative effect of landscapes. Mystery, or the quality that causes a landscape to be sequentially revealed, is a strong indicator of both preference and psychological restoration (Laumann et al. 2001). That is, the natural landscapes that we prefer are also those that give us the best mental and physical outcomes and *vice versa*. ►



Above: In 2016, the University of Texas, El Paso, The Campus Transformation Plan led by Ten Eyck Landscape Architects, was the first project certified under the Sustainable SITES v2 initiative. The xeric landscape celebrates the beauty of the Chihuahuan Desert and is planted with a mixture of native and non-native plants. The project developed over 600 outdoor seating areas, specifically designed to provide mental restoration. Photo permission Christy Ten Eyck

Yet we know that much of modern life is spent indoors, engaged with smartphones, video games and on social media. A number of studies have linked such activities to sleep problems, depression, anxiety, eating disorders and increased risk of suicide (World News). Despite our love for nature and the benefits of contact with urban nature, modern humans have increasingly tended to choose activities that are detrimental to their well-being, over those that are most beneficial.

Planting design is currently regaining the prominence that it once had in our profession, with major landscape architectural firms differentiating themselves with bold and expansive planting designs and there has been an increasing trend toward a wilder style of planting design such as that as seen in Piet Oudolf's planting of the Highline in New York. This wilder style has been embraced in Britain and continental Europe, more than in North America, but is also seen in the work of many notable North American landscape architects. The work is not a simulated wilderness, in the

Canadian sense, but rather a wildness that may appear independent of human intervention and even "undesigned" to the lay person. These designers are not imitating nature or even the appearance of nature. Rather, their work is an artistic abstraction of nature that evokes the sensations and feelings one experiences in nature (Figure 1). Although the research has not yet been done, I suspect that these wilder formats, allow people to call to mind landscapes of memory, to engage with the landscape more and in doing so to be more restored.

Implications

Our need to counteract what Olmsted called the special evils of cities has never been greater. The trend toward wilder landscapes is being widely embraced by the public and offers opportunities for landscape architects to design landscapes that are more restorative, more preferred, lower maintenance and that support higher biodiversity. Forward-thinking landscape architects are embracing these opportunities. **SL**

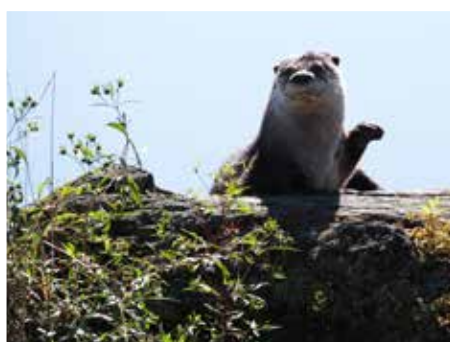
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METRO VANCOUVER REGIONAL PARKS:

Protecting natural areas *and connecting* people to nature

— Karin England, MBCSLA



All of the images are supplied by Metro Vancouver.

Top left: Nursing Bear caught on wildlife camera Middle left: Interpretive program for park visitors Bottom left: Waving river otter Image right: Young volunteers lend nature a helping hand

From Burns Bog's unique ecosystem, to the fresh and saltwater beaches at Belcarra, to the forested trail at Grouse Grind, Regional Parks offer a diverse collection of natural landscapes where residents can get outdoors and commune with nature.

Many people don't realize that these parks – stretching from Bowen Island to Langley – are part of a regional park system preserved and protected by the Metro Vancouver Regional District.

Regional parks have a unique role which is different than that of other park agencies. This article shines some light on who we are and what we do.

What is the Metro Vancouver Regional District?

Metro Vancouver Regional District is a regional government comprised of 20 member municipalities, one treaty First Nation and one Electoral Area, and provides services to over half the population of British Columbia.

MVRD is made up of four separate corporate entities (Metro Vancouver Regional District, Metro Vancouver Housing Corporation, Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District) who work together in seven areas of legislated responsibility including drinking water, liquid waste, solid waste, affordable housing, regional growth, air quality and climate action, and regional parks. These are areas where it sense to work ►



together as a region rather than working as individual municipalities. For example, drinking water for the region comes from reservoirs on the north shore and cooperation between agencies is required to deliver water to residents of all the region's municipalities. Likewise, air quality is best delivered as a regional service as the air shed extends across municipal boundaries.

It's an ambitious portfolio of programs, and the MVRD mission statement is equally ambitious:

"Metro Vancouver seeks to achieve what humanity aspires to on a global basis – the highest quality of life embracing cultural vitality, economic prosperity, social justice and compassion, all nurtured in and by a beautiful and healthy natural environment (from Board Strategic Plan)."

Metro Vancouver Regional Parks Vision and Mission

Our vision is bold and simple. Regional Parks protect natural areas and connect people to nature.

Regional Parks' mission is to contribute to a livable region by conserving natural assets and connecting people to nature. Our parks enhance the quality of life of residents and visitors and provide opportunities to experience nature. The important natural landscapes protected in Regional Parks contribute ecological goods and services to the region and mitigate climate change. The Regional Parks service fosters environmental interpretation, education and stewardship through community development and promotes a sense of responsibility for, and connection to, the place in which we live.

Our work flows from four core values

The necessity of nature: We understand the critical role of the natural world in the survival of the planet and our role in protecting and enhancing it.

Wellness: We continue to witness the positive impact our service has on the mind, body and spirit of the members of our community

The sharing of expertise: We know how nature works and how to best take care of it, we strive to make our knowledge accessible, and we are always curious and excited to learn from others.

Stewardship: Through relationships with Regional Park partners, we strive to educate and empower people to help them become ambassadors of nature, it is part of our mandate to make the natural world interesting to people

Metro Vancouver Regional Park Holdings

Our holdings currently include not only 22 regional parks, but also five regional greenways, two ecological conservancy areas and three regional park reserves. Our system contains over 13,600 hectares of land across the region, and we have plans to expand. We are currently developing a land acquisition strategy which will ensure that the sensitive lands we need for the health of the region are protected into the future.

Our holdings are different than those of municipal parks, which are small to medium in size with visitors who are generally residents of the local community. Municipal parks often provide active recreation facilities such as sports fields, play equipment, dog off-leash areas, and skate parks.



Top left: MVRD members Top right: Kanaka Creek Watershed Stewardship Centre in Maple Ridge Bottom right: Learning, connecting at a Regional Park event for children

In contrast, Metro Vancouver Regional Parks are medium to large scale. The largest is Lynn Headwaters Regional Park at 3,725 ha, and the smallest is Barnston Island Regional Park at 26.5 ha. The average size of a regional park is 463 ha; that's about 1.4 times the size of Stanley Park. Our visitors are residents from across the region, and most stay a full afternoon or a whole day. Regional parks typically have facilities that support passive recreation such as picnic shelters and trails.

Some regional parks which have been in the news recently are Surrey Bend Regional Park which was awarded a 2018 Canadian Society of Landscape Architects National Award (congratulations to space2place), and the newly opened Kanaka Creek Watershed Stewardship Centre in Maple Ridge.

Development in Regional Parks typically includes infrastructure such as access roads, parking, washrooms, and in some cases, canoe launches and visitor centres. All development is done with great care to protect these sensitive sites, and to promote an appreciation for the surrounding natural environment.

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Visits, Visitor Services and Volunteering

Regional Parks are very popular with residents, and 2017 saw 11.9 million visits; 454,000 of those visits were to greenways and the remainder were to parks. About half of the visits were in spring and fall, showing that park visitation continues regularly throughout the year.

To create opportunities for people to learn about, connect with and enjoy nature, Regional Parks offers free events and activities. These range from curriculum-supporting school programs, to themed interpretive events, to meteor shower viewing. We delivered 1,093 programs to 65,881 attendees (children, adults, families) in 2017.

We also have stewardship, partnership and visitor services programs. Volunteers lend nature a helping hand in fun and interesting ways – removing invasive plants, monitoring wildlife, planting native trees and shrubs, conducting bird surveys and more. In 2017 we logged 29,663 hours of volunteer hours, and 20,156 stewardship volunteer hours.

Landscape architecture in the Regional Parks Context

You may be surprised to learn that there are only a handful of landscape architects working for Metro Vancouver Regional Parks, and that we don't share a single office or department.

I work with a different cast of characters than you might expect; my office team includes (in part) a biologist, research technicians, park interpreters, a special event coordinator, a park ranger, and the operations staff that keep our parks running.

What I feel is unique about working as a landscape architect for Regional Parks is a focus on protection of the natural areas to contribute to regional liveability, and providing opportunities for people to connect with and learn about the environment.

As the population in the region continues to grow, there are significant challenges and opportunities ahead. Regional Parks have a significant role to play in providing increased access to the outdoors, mitigating the effects of

climate change, and preserving large, intact and functioning ecosystems which provide ecosystem services and other environmental benefits to the region.

Come visit us!

I hope that you are able to take some time to drop by a Regional Park and connect with nature!

A list of upcoming free events, programs, and stewardship and volunteering opportunities can be found at www.metrovancouver.org/events/check-it-out.

If you don't have time to visit in person, you can always explore our parks online by watching our park videos at www.metrovancouver.org/services/parks/parks-greenways-reserves [SL](#)



WE MUST REMEMBER The Importance of Native Plants

— Hannah Phillips

We live in a beautiful region with some amazing landscapes, mountains, forests, and unique plants that can't be found anywhere else. Unfortunately urban development has destroyed areas that represent our region and contain important ecosystems. The loss of these ecosystems has created "dramatic environmental changes, including increased temperatures, more impervious surface cover, altered hydrology, and elevated pollution" (Johnson & Munshi-South, Nov 2017) in our urban environment. As we continue to develop our urban areas we need to not only continue adding more green environments such as gardens, parks, and natural areas, we also need to start planting and introducing more native plants. Urban development produces some of the greatest local extinction rates and frequently eliminates the large majority of native species (Vale and Vale 1976, Luniak 1994, Kowarik 1995, Marzluff 2001) and since we are the ones that caused them to disappear we must be in charge of bringing them back to our regions.

Native plants are plants that grow naturally in our area and are adapted to our climate so they are easy to maintain, are more drought tolerant in our region, and easy to grow. Even though ornamental plants may also be easy to grow in

our climate it's imperative to continue planting native plants to improve, restore, and regenerate our ecosystems and biodiversity that have been affected. Native plants also provide critical habitat and food for our native wildlife. Native birds such as woodpeckers and chickadees control insect infestations by eating the larva of the insects that damage or kill our plants and trees. Therefore by planting more native plants we can attract more beneficial wildlife to control our pest populations. We also need native plants to provide food, shelter, and building materials for native bees because these plants are vital to the survival of the native bee species in BC. One study in California using native and exotic flowering plants for hedgerows proved "that bee abundance was greater on native plants in both new and mature hedgerows and bee richness and diversity were greater on native plants than exotic plants in mature hedgerows" (Morandin & Kremen, 2012). Even though this article was used for agriculture purposes it still holds true for our landscapes and proves native bees prefer native plants.

Everything is connected in our ecosystems and by incorporating more native plants back into our designed landscapes we can improve our urban areas by creating diverse ecosys-

tems reflected of the ones that used to be here before human intervention and development.

It's not only incorporating native plants into landscape designs it is ensuring the planting design works for the specific plant conditions. I've worked on sites where the planting design specified *Gaultheria shallon*, which prefers shaded conditions, to be planted in full sun next to concrete pathways that radiated heat and fried the plants. With enough irrigation the plants probably would have survived, but then we get into the problem of using too much water when the issue could have been avoided by planting the *Gaultheria* in filtered sun and saving water and saving the plants. When incorporating native plants into green spaces the goal should always be to try and increase the biodiversity of the area while helping to create a balanced ecosystem.

If you need a reminder of the true beauty of native plants, hike through the local forests and take a few moments to look around at all the plants and trees. That is how plants grow in nature without any human intervention, irrigation, or fertilizers/pesticides to help them grow. It's nice to get back to the basics and remind ourselves what was once here pre-contact. Every region has certain plants



All images supplied by author

Facing left: Orange Trumpet Honeysuckle in Sechelt Facing right: Red Twig Dogwood in Hinge Park Left: Bee collecting nectar from Hansa Rosa in Hinge Park Right: Camass in Beacon Hill Park

and trees that only grow naturally in that area, so it's kind of cool to see the plants that are unique to only our region and maybe remind us of where we came from.

Urban development is inevitable so we need to balance out the grey with more green by using native plants to improve our biodiversity and reinforce natural ecosystems. The urban environment has great potential to provide a dynamic interaction between human culture and the natural world (Douglas and James, 2015).

Natural forests and wildflower meadows once dominated our regions, but human intervention and urban development have changed our once beautiful landscapes to concrete buildings and asphalt roads. We can never reverse what we've done to nature, but we can help by planting more native plants in our urban landscapes. Native plants require less water, less time, and less money to maintain while providing more natural habitat and food for local wildlife. We must try and incorporate more native plants and trees into our urban landscapes since urban development is slowly depleting our native plant collection without replacing anything. Incorporating more native plants in our landscapes will improve our ecosystems and help us

protect our biodiversity so many more generations can enjoy our beautiful natural landscapes.

Some native plant ideas for our urban gardens:

Ribes sanguineum – Flowering Currant (part shade/part sun – full sun)

Polystichum munitum – western sword fern (part sun/part shade, shade)

Cornus nuttallii – Pacific flowering dogwood (part shade/part sun – full sun)

Cornus sericea – red twig dogwood (part shade/part sun – full sun)

Fragaria vesca – Alpine strawberry (part shade/part sun – full sun)

Camassia leichtlinii – camass (part shade/part sun – full sun)

Lonicera ciliosa – orange trumpet honeysuckle vine (part shade/part sun – full sun)^{SL}

Hannah is a 4th year student at Kwantlen Polytechnic University in Sustainable Horticulture. She is the daughter of Margot Long and Jeff Philips.

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NATURE AS CULTURE: increasing access to nature in Vancouver

— Nick Page, RP Bio., Vancouver Park Board

The experience of nature – of winter storm waves on the Kitsilano shore, of a flock of kinglets passing like a twittering gust of wind through your backyard, or the glimpse of a coyote hunting on the edge of Renfrew Ravine, is part of the culture of Vancouver. It's intertwined in our daily lives. Despite its value to the identity and health of our city, we often separate nature from the idea of culture as the construct of human society: celebrations, art, music, media, parks, etc. But culture is also defined by both our values and natural environment, and I think we need to consider nature as a fundamental part of the culture of Vancouver, and to use this as a foundation for how we build a city.

I work as the Vancouver Park Board's biologist. I spend my time on a broad range of topics managing urban forests, urban wildlife, marine water quality, water conservation, and creating or restoring habitat for bees, birds, fish, and other species in parks across the city. It's a role that is part technical resource helping the Park Board and the City navigate how to manage biodiversity, as well as part advocate to raise the profile of nature in an institution that historically has placed less emphasis on biodiversity compared to other components of sustainability. It's often an inspiring job that allows me to do what I love best – trying to uncover the myriad stories and inter-connections that characterize their natural world, and translate that into action.

Part of this job is easy: Vancouverites are captivated by the natural world and Park Board surveys consistently rank nature, biodiversity, and wildlife as priorities for park creation and management. This contradicts the idea that as city dwellers we are more and more disconnected from nature. We hear that children recognize more corporate brands than local birds. But my experience with Vancouver residents is that they remain very connected to the natural



world the flows through and around the city. These values are often deeply-rooted and emotional and are reflected in society's changing views on captive cetaceans, grizzly bear hunting, and even the tolerance for urban wildlife like resident geese, beavers, and coyotes which are not always easy to integrate into cities. The media is often a reflection of society's emotions and the social media explosion if orcas pass through English Bay, or a misplaced black bear is seen in east Vancouver, or even the seasonal attacks of nesting crows, captures our fascination with nature.

The technical side of managing biodiversity in Vancouver is more challenging. Vancouver has inherited a physical landscape that was largely developed before policies and regulations like stream and wetland protection were even contemplated as part of city planning. We cut down some of the largest trees in the world as a first step in Vancouver's development. We also culverted almost every stream, filled in 2/3rds of the intertidal wetlands of False Creek, and hunted or trapped elk, bears, wolves, deer, and a range of other wildlife to extinction. Even our largest natural area – Stanley Park, is impoverished of many species such as Pacific tree frogs, American martens, and ruffed grouse that would be expected to be found there. The decline of local First Nations during the early part of Vancouver's history also resulted in a huge loss of cultural knowledge about our local landscape and ecosystems that had developed over thousands of years.

Nature is also amazingly resilient and Vancouver now supports species that have either learned to thrive in urban areas, or at least tolerate these new habitats. Spotted skunks have disappeared from much of Metro Vancouver but striped skunks are common in our alleys and parks. Coyotes are now the city's apex predator and eat backyard apples and zucchinis, feral and domestic cats, squirrels, and rats, and whatever food resources our urban neighbourhoods provide. Chum salmon feed in a long sweep through the northern Pacific and along the Aleutian Islands before returning through the Brunette River and Burnaby Lake to spawn in Still Creek behind a Canadian Tire in east Van. And great blue herons nest outside the doors of the Park Board's office in Stanley Park looking and sounding like a colony of pterodactyls. The city is full of fascinating stories of species that have adapted to the urban ecosystem.

The Park Board and the City worked together to develop a Biodiversity Strategy which was adopted in 2016. It emphasizes the importance of rebuilding an ecological network made up of natural areas – shorelines, forests, wetlands, streams, meadows, that work as a connected system across the city. The goal of an ecological network is tempered by land prices and urban land patterns, but it also highlights the importance of building local-scale connections in our park network like VanDusen Botanical Garden to Queen



Facing page: Salt marsh in New Brighton Park (photo by Vancouver Fraser Port Authority)
 Top left: Juvenile chum salmon in New Brighton Park salt marsh (photo by Jim Roberts)
 Middle left: Application of adhesive dots to reduce bird collisions at Park Board head office (photo by Nick Page)
 Bottom left: False Creek herring spawn (photo by Nick Page) Middle: Everett Crowley earth day planting (photo by Nick Page) Right: Jericho Ponds cleanout (photo by Nick Page)

Elizabeth Park. Parks are an essential part of Vancouver's ecological network because private lands, unlike developing municipalities like Surrey and Coquitlam, are almost completely developed for housing and other urban land uses. What natural areas we have left are almost all contained within city parks. Stanley Park is a regionally significant natural area but smaller parks like Jericho, Musqueam, John Hendry, and Everett Crowley, and the city's golf courses, also protect important natural features like Musqueam Creek and the Jericho ponds. The Biodiversity Strategy also emphasizes the importance of celebrating the cultural side of nature through education, events, citizen science, and other methods to connect people to the natural world.

So how do we build a city that supports and celebrates nature?

First, nature needs more space. We need to increase the overall amount of natural areas

across the city, as well as improve the quality of these areas to support native biodiversity like forest-dependent birds. While some urban-adapted species like eastern gray squirrels thrive in residential neighbourhoods, most species need natural habitats such as mixed forest dominated by native trees or freshwater wetlands that can only be created in parks or other large sites. The success of the New Brighton Park salt marsh which turned an area of grass and seldom-used tennis courts into a tidal wetland, beach meadow, and shoreline forest is an example of how parks can better support biodiversity.

We also need to think more about facilitating the recolonization of the city by wildlife species that were lost during Vancouver's rapid urbanization phase. This process of re-introducing extirpated species is often called "rewilding" but it's a confusing term for many people. Re-introducing wildlife in Vancouver would not focus on large mammals like deer and bears which are inappropriate for a dense, urban area, but about species like Pacific herring, Pacific tree frog, and the Douglas squirrel that are key parts of the food-web that other species depend on. Without Douglas squirrels in our forests, for example, there are fewer predators like owls and hawks, as well impaired ecosystem processes that depend on squirrels to disperse conifer seeds and fungi spores.

We also need to change our mindset about how natural systems are managed in Vancouver; we need to become more tolerant of the uncertainty that is inherent in the natural world. We've

spent most of our existence working to conquer nature, but the blunt truth is we've won that battle. We need to move away from mowing every yard and park from corner to corner to allow meadows and shrub thickets to become part of our urban landscape. It's ironic that the railway corridors of False Creek Flats with regenerating cottonwood trees, blackberry dominated shrub thickets, and weedy edges support more birds and invertebrates than many of our highly maintained parks. New parks being designed along the Fraser River in East Fraser-lands are looking at how they can embrace flooding that occurs annually along the river's shore. Parts of the Arbutus Greenway were seeded with wildflowers to benefit pollinators and maintain the messy vernacular that people love about the corridor.

Finally, we need to celebrate what biodiversity and nature brings to Vancouver: the seasonal beauty of our urban forest in also its hues and shapes; the migration of songbirds through our parks in the spring and the arrival of overwintering seaducks in the fall; catching crabs from the Jericho Pier, and hearing tree frogs calling from the Jericho ponds on spring evenings. Vancouver is a city defined by nature. Let's have the ambition to use this as a foundation for how we design our city. **SL**

Nick Page is a professional biologist who works on biodiversity, urban forests, and other sustainability initiatives for the Vancouver Park Board. The views expressed in this article are his own.

HOW NATURE CAN CHANGE the Urban Environment

— Margot Long, MBCSLA, FCSLA
*Margot is one of the founding
principals at PWL Partnership.*



There are so many aspects of my job I love, but one of the most passionate ones for me is bringing nature into our urban environments. More and more scientific research and studies show the increase in people's health and happiness when they connect with nature. *"Research shows that we need nature to nurture our psychological, emotional and spiritual needs. It is also believed that being in nature relieves attention fatigue and increases creativity. Study results demonstrate that there is a cognitive advantage to be realized if we spend time immersed in a natural setting."*² As density increases in our urban environments, it is more important to create natural systems within the urban setting so that people living in these environments can be connected to nature and these natural settings.

Natural landscapes not only serve those who live in urban environments, they provide a wealth of benefits for the flora and fauna, many species of which are endangered and at risk as our cities grow. The BC Conservation Data Centre notes that there are 1,597 species with 329 ecological communities at risk.² As landscape architects, design ethos is critical and important, however, I am not the only one who believes design rooted in a natural systems and inspired by nature is critical to the health of our profession and our cities. "Developing positive experiences in nature at a young age can influence our attitudes and behaviours towards nature as adults," says Broom.³

Two projects that our office had the opportunity to be involved in and I feel best represents PWL's *Inspired by Nature* vision are the Vancouver Convention Centre and the SEFC Olympic Village. These projects had great clients who championed the process and wanted to create unique and legacy projects for Vancouver. They also had good budgets and a time frame that had to be



met. Both projects are LEED® Platinum and at that time almost 10 years ago, pushed the limits of innovation and sustainability.

The Vancouver Convention Centre expansion project created a 6-acre naturalized living roof that fulfilled one of the projects goals to extend the green character from Stanley Park and Harbour Green Park into the project and extend the natural environment into the urban downtown fabric. The living roof is modeled after a Vancouver Island native grassland with the same environmental conditions. The roof is not publicly accessible, so flora and fauna have claimed it their own and ground nesting birds, such as the White-crowned Sparrows not found in other areas of the urban core, contribute to this important ecosystem. UBC Entomologists track the wide variety of insects also not normally found in the downtown core yet are critically important and beneficial to our environment. Native and non-native bees collect nectar from the wild flowers.

If you ever get the opportunity to access the roof, take it. Once up there you feel like you are in an entirely different environment and landscape. The north shore mountains and forest faces you on the north, to the west is Stanley Park, to the east in the Vancouver Port and on the south is a wall of towers. Even though you are on the edge of the city, you feel like you are immersed in nature.

The other project that captures a strong connection to nature is the Olympic Village that was built for the 2010 Winter Olympics. The project was built for the Olympics yet was envisioned as a complete sustainable community for residents of Vancouver before it was planned as an Olympic legacy. Similar to the Vancouver Convention Centre all aspects of the project are integrally connected. Different though is the public connection this project has with nature. Nature embraces this project and can be found throughout the community.



Facing Top: The living roof on the Vancouver Convention Centre.
Facing Bottom: Coal Harbour Left: Habitat Island at SEFC
Right top: Hinge Park Wetland Right bottom: Hinge Park Beaver
All images courtesy of author.



Habitat Island was created to provide the habitat compensation for filling in ocean that was decked over for 60 years. The island is a park landscape different than other parks in Vancouver. The aquatic habitat and sea life is a huge part of the connection to nature on this project. On the island there are glimpses of nature that can be found in true wilderness, which is part of the intrigue and attraction. The naturalized foreshore and aquatic habitat extends into the village itself creating important ecosystems and biodiversity.

The man-made wetland cleanses the storm water from the village streets and continually recycles the water through planted terraces. When water reaches a certain height, it overflows into the creek at the inlet by Habitat Island. Since the project has been built, water quality in the creek has improved and herring and oysters have been found in waters after decades of being absent. The wetland has become the recent

home of a beaver family, which has caused some significant tree damage to the park and wetland yet has truly transformed the wetland into a significant nature experience for the flora and fauna. Nick Page, at the Vancouver Parks Board has confirmed the beavers can keep their home for the time being, as an experiment to see if the furry residents to this naturalized landscape can integrate with the built community and its residents.

I have toured many people around the Olympic Village and the comments I hear most are about people's attraction and love for nature in an urban environment. If we can design projects that connect people to nature while at the same time improve and increase the environmental integrity of our urban environment, our projects can slowly make a difference. **SL**

(1) <https://academic.oup.com/heapro/article/21/1/45/646436/Healthy-nature-healthy-people-contact-with-nature>

(2) Report of the British Columbia Task Force on Species at Risk, January 31, 2011. Includes species, sub-species, populations or variants, as reported by the BC CDC; includes all species (1,207 plant and 390 animals) on the BC CDC red and blue lists (accessed October 2010)

(3) Research by Catherine Broom, assist. prof. in the Faculty of Education at UBC Okanagan, shows that 87 per cent of study respondents who played outside as children expressed a continued love of nature as young adults. Of that group, 84 per cent said taking care of the environment was a priority

CSLA Fellows

— Margot Long, MBCSLA, FCSLA

This edition is profiling the BCSLA's two new CSLA Fellows. I asked each of them a few questions to help with the profile. I think you will find each of these inspiring and interesting.

PROFILE OF Bruce Hemstock

the New CSLA Fellow

Bruce, tell me a bit about your background. Where you grew up and where you went to school and how you ended up in Vancouver?

I grew up in Edmonton and the Toronto area experiencing strong influences from the west and southern Ontario. I started off my post-secondary education at the University of Guelph. I did not get into landscape architecture, so I went forward horticultural thinking I would re-apply after one year. It was a good idea at the time but in the end it fell apart and finished my first year at Guelph and decided to work for a couple of years. I landed a job at a garden centre/ nursery north of Toronto where I met a summer student who was studying landscape architecture technology at Ryerson Polytechnical Institute. I applied, got in, loved every minute of my Ryerson experience. Leaving Ryerson was exciting I managed to find work in the middle of a recession in Toronto and started my career. I had always thought that furthering my education would be an important step in my career so after two years at Hough Stansbury off I went to the University of Oregon where I completed a bachelor and a master's in landscape architecture. The U Of Oregon was another eye opening experience as it related to landscape design, theory and exposure to architecture and allied arts really showed me how small my world really was. Going to school in the states created an opportunity through my student visa to also work for an extended period of time. Boston was booming, it looked like an interesting city so off I went with my wife in tow. We lived and worked in Boston and Cambridge for over five years. An amazing experience. The office I worked in had projects all over New England so I saw a lot of the north east and worked on a lot of different projects of various scale and complexity.

US immigration is not an easy department to navigate so we elected to return to Canada. We had visited Vancouver for three days during

Expo 86. We recalled it was a beautiful city with very little snow and no humidity in the summer so off we went landing in Vancouver in 1992. The rest is history.

Can you tell us the story behind your own Green Roof?

The Vancouver Convention Centre had just opened, and I had learned a lot about green roof technology and implementation. What I was lacking was the ability to watch a green roof grow, mature, change, etc. We had just bought a 1922 heritage house in New Westminster and were busy renovating. The house needed a garage, the garage needed a roof, here was a perfect opportunity to put my Convention Centre experience to good use. I wanted to figure out how to scale down the design, reduce the cost yet still have a roof that matched the character of the house with an 8/12 pitch. I spent a lot of time sketching and re sketching to come up with a way to hold the growing medium on the roof without putting any holes in the membrane. I figured I could build a frame out of pressure treated wood with a galvanized metal connector plate to join the two frames together and just lay this over the peak of the roof so it supported itself. The idea worked, and my steep sloping garage roof is now covered with a mixture of grasses, sedum, lots of volunteer plants that blew in from my garden and more insects that I could ever have imagined.

Since you were elected under the Built Work Category for the CSLA, Can you comment on what projects that you have worked on have been the most rewarding? I know it is difficult but pick a couple and explain why?

All of the large park projects that PWL has been part of all had their challenges but were great to be part of. Marine Gateway at Marine and Cambie continues to make me smile every

time I go there or drive by, it is a wonderful space that if you look close enough tells a nice story. The two projects that were most rewarding are Westminster Pier Park in New Westminster and the Vancouver Convention Centre.

Westminster Pier Park captures everything that I think is important in the practice of landscape architecture. It could only fit in the City of New Westminster. It tells so many stories about the city, its people, heritage, culture and water front that every time you visit you can potentially learn something different. It is always full of people, birds and insects so it works on many different fronts. I will never forget the email I received from a woman who took her grandma to visit the park. They walked along the memory band and stopped at the photo panels on the seat steps. Her grandma looked at the images and began to cry. Her memories of growing up in New West came flooding back to her, she recognized many names, dates and places, this park had done more than just provide a place to have a nice walk along the water.

The Vancouver Convention Centre has been the most challenging project of my career. The scale of the project, interface with the city parks, streets and waterfront were very complex. The sustainability initiatives coupled with the budget constraints required lots of out of the box thinking. The green roof; its scale, the plants, technical challenges were quite significant. This was a time in North America when this type of extensive green roof was just an idea to many of us. In the end the research, collaboration and stubbornness won the day and not only is the roof successful, but the entire project seems to buzz with excitement on most days. Through my experience with the VCC green roof I got to see a huge urban project become a haven for insects and birds. I have spoken to hundreds of people from all over the world at conferences, VCC open houses, VIP receptions and symposiums, via email, phone calls and interviews. All of the knowledge and experiences were shared with whoever asked. It was our way of giving back to landscape architecture.

What do you like most about your job.

This may sound corny but I really do feel like the work that I have been involved with at PWL and the firms in my past made a difference. I walk around Vancouver and see projects that I had a hand in, watch how people seem to enjoy themselves and feel good that maybe I had something to do with that happiness. I love to share my



experience and knowledge. It is really fun to help a colleague solve a problem.

What change have you seen in the profession since you started?

Technology, has in my mind been the biggest game changer. Not only the speed with which work happens but the availability of information and the way in which we communicate and convey our ideas. Technology has made the world seem like a small place where everyone is just around the corner.

Do you have any advice to landscape architects in BC that want to make a difference in the profession?

Everything that you do no matter how big or small, simple or complex will have an impact. Treat all of the opportunities that come your way with great respect and they in turn will reward you.

In a few words, what inspires you?

I am inspired by people who are excited about what they do. **SL**

PROFILE OF Kim Perry

the New CSLA Fellow

Kim, tell me a bit about your background. Where you grew up and where you went to school and how you ended up in Vancouver?

I grew up in eastern Washington state in the desert – lots of sage brush and sand with wide open landscapes, big winds and not many trees. My parents signed me up for drawing classes after they noticed I might have some abilities. After graduation from WSU, I moved to Edmonton working for Butler Krebes Associates. In October of the third year the temperature dropped to minus 30 and I decided it was time to move to the coast. That was when I met Don Vaughan, who became my mentor as he was with many others who passed through that firm.

I've heard that you have some important routines and traditions. Can you tell us about them?

I guess I do. To stay sane, since 1978, I've always left at lunch for exercise – either running or swimming. Forming and running a firm is challenging and demanding while also being rewarding. I wanted to create a fun work environment and to surround myself with talented people. We have lots of lunches out and special events. I've been really lucky to have had the chance to work with people who have allowed me to remain focused on design while they take care of the details. It's a gift they have given me and I appreciate it more than they know.

Since you were elected under the Built Work Category for the CSLA, Can you comment on what projects that you have worked on have been the most rewarding? I know it is

difficult but pick a couple and explain why?

There were times in my mid-career when I wondered if I could carry on doing this. This was brought on by frustrations resulting from the daily grind of private practice. I eventually arrived at the point where my goal was to get the most out of each project within the ever-changing constraints that were placed upon it. It was a simple thing, but liberating for me.

I figured out that the best projects come from good supportive clients. I'm proud of our work in the mixed-use neighborhoods at UBC. We were in on the ground floor and carried forward the early ideas into complete communities. Imperial Landing in Steveston and Garrison Crossing in Chilliwack are projects that I still like to visit.

What do you like most about your job.

I'm partly retired now, but the thing that keeps me coming back for more is getting the chance to collaborate with people whose talent I respect. Within the office environment, this includes my partners, office managers/administrators and landscape architects. Each day is totally different from the one before. I also participate in many charrettes. This allows me to work with other talented people who bring a fresh perspective to the task at hand. I really enjoy being a part of the synergy that occurs when experts from many disciplines build ideas together.

What change have you seen in the profession since you started?

The obvious one is the advent of computers which has totally changed the way we work. I think offices used to be more social places



because we weren't all focused on the screen. The design process is also different. It's more difficult to collaborate around a table. I'd like to think there's still a place for pens and sketch paper, but who knows? I think there may now be more opportunities for technical innovation in design development

Do you have any advice to landscape architects in BC that want to make a difference in the profession?

I'm so impressed with the students and early practitioners of landscape architecture. Through my teaching, charrettes (which often include students) and working with people in our firm, it's clear that they are receiving excellent educations and have the confidence to make a difference in the world. Over my 40+ years in practice, I've been able to take advantage of the broad definition of our profession by changing course several times. I don't think it's possible to be conversant in all areas defined under the umbrella of landscape architecture so in a career I encourage those who might feel that they are in a rut to explore other topics and become "experts" in that area.

In a few words, what inspires you?

What inspires me is my family, my friends and colleagues, music, exercise, art, travel, good design and moments of solitude.

Parting comment.

Following is an excerpt from an article I wrote for Sitalines a couple of years ago. I still believe it to be true:

I have a final observation and a concluding comment. The demands of our working lives as Landscape Architects are significant. Many hours are dedicated to developing our knowledge base and skill sets, and also to fulfilling the requirements of the day-to-day activities demanded by our careers. I see a trend toward ever expanding emphasis placed on certification, professional development and enforcement. My wish for the future would be that we might spend less time putting up obstacles and policing our activities and more time supporting one another, encouraging/nurturing those entering our ranks and celebrating our accomplishments. **SL**

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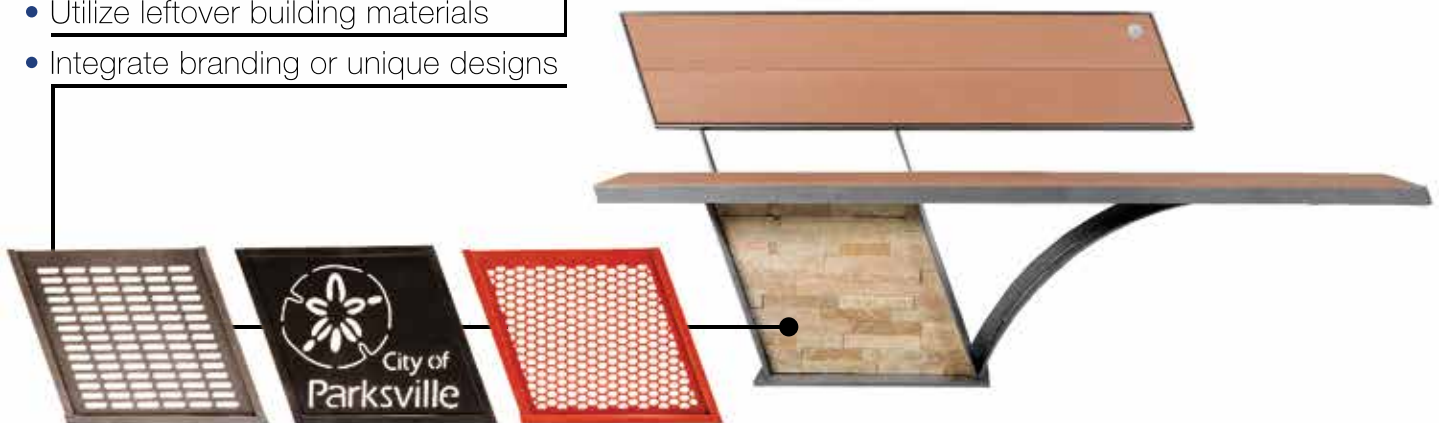
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