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The BCSLA offices are located on unceded Coast Salish territories of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and salililwətaʔk (Tsilil-waututh) First Nations.

Sitelines is published twice a year by the British Columbia Society of Landscape Architects and is mailed to all BCSLA members, registered landscape architects, associates and affiliates. 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.

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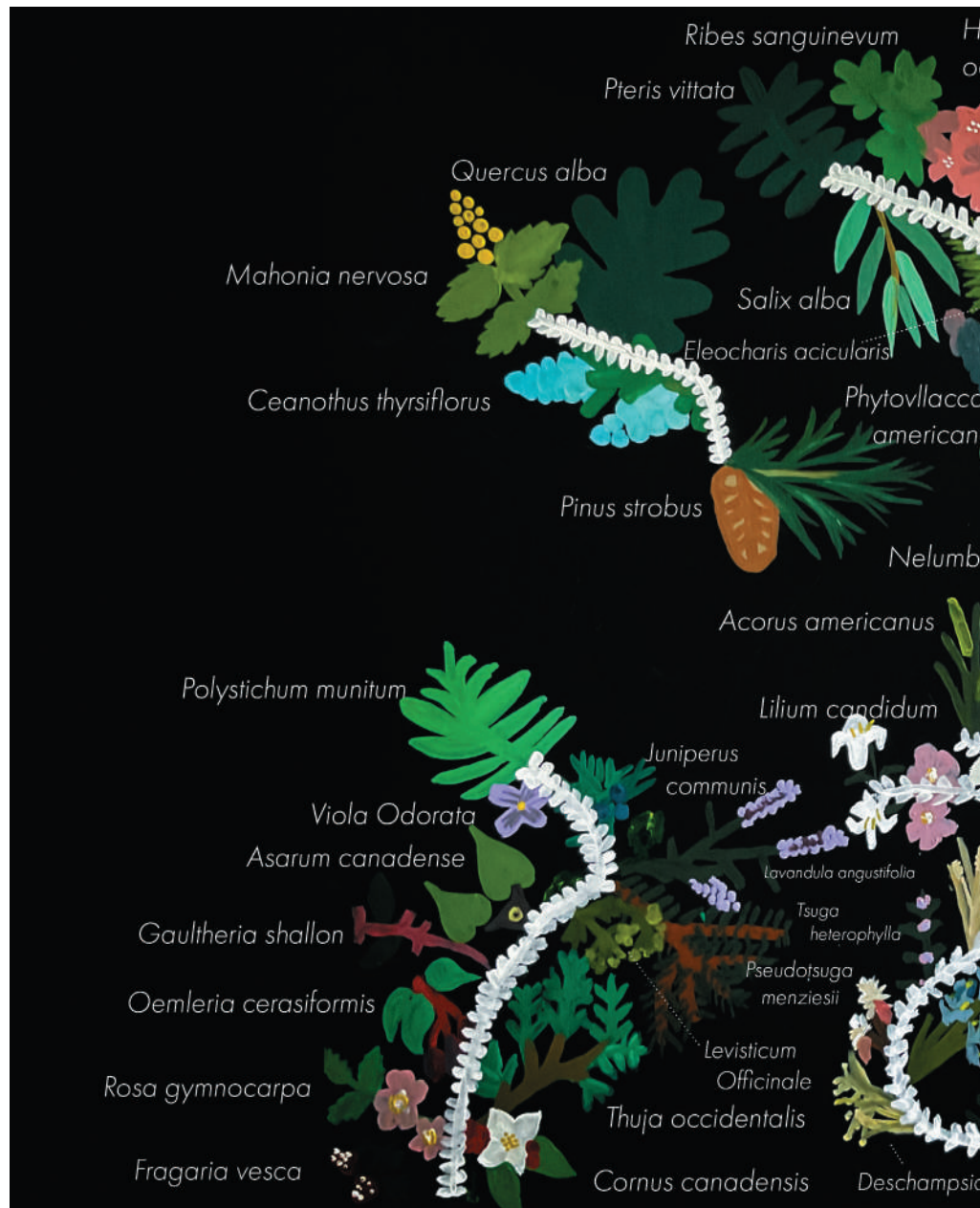
Published by Naylor Association Solutions
1200 Portage Avenue, Suite 200
Winnipeg, MB R3G 0T5
www.naylor.com

Account Manager: Bryan Metcalfe
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Cover Image: Norma Ibarra

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Canadian publication mail agreement #40064978

Published October 2022/BCL-B0222/9120



Métis Planting Design for Inclusive Park

Artist: Robyn Adams

This painting of a planting palette was made for a park design during my first Landscape Architecture Studio Class. Although I painted and designed this art piece myself, it is part of a group project including Ruby Barnard, Bridget Fanying Bi, and Lana Radomsky for a course led by both Stephanie Braconnier and Daniel Roehr with the focus on creating an inclusive park. Our group design effort was to design with decolonization, interculturality and radical healing as design principles. My plant knowledge has extensively grown through making beadwork over many years, and traditionally Métis beadwork patterns include many vivid prairie flowers and plants. The white design between plants is a representation of mouse tracks in snow. My intention is that this design element highlights the connections between plants. Including Indigenous Knowledge into the process of design, from process work like this painting to the final realized design is a way that I can connect my cultural identity into my design in landscape architecture.

Robyn Adams is a multi-disciplinary Red River Métis artist from Winnipeg, Manitoba. Her Métis family is from la Rochelle and St. Pierre Manitoba. She is currently a dual Master of Architecture and Landscape Architecture (MARCLA) student at the University of British Columbia and holds a Bachelor of Fine Arts Honours from the University of Manitoba focusing on sculpture and film photography. In her work she researches Indigenous Knowledge, connecting the environment with architecture and identity through connection to the land, plant medicine, spirituality, and ancestry. She enjoys fishing, medicine picking, travelling, and making things with her hands.



Welcome to the (In)visible issue

in·vis·i·ble
/in'vizəb(ə)l/

adjective

1. unable to be seen; not visible to the eye.

It has been asserted that good design is often invisible. This issue asks, how does design consider those in society often deemed invisible? What are the invisible forces that shape our landscapes? In this issue we explore (in)visibility of design: what is revealed, what is forgotten, and what is overlooked. As we were assembling the issue, it had us thinking about what is just under the surface. Landscape architects and associated professions such as civil engineering, electrical and mechanical trades truly deal with the stuff down there — geotechnologists help us understand where the best places are to build and not build; arborists help us understand the viability of species and the longevity of tree canopies. How things are rooted in society correlates closely with how things are rooted in the ground: the surface is only the beginning of the story.

Originally the Sitelines Board members were thinking that “99 percent invisible” would be the thread that pulled this issue together, but we realized it was going to be more than that. There are the nuts and bolts that physically put the world together, but then there are the nuances that have more to do with social psychology, economics and long-term mitigation strategies for climate. As generalists in this profession, our job is to curate and animate, to translate the nuts and bolts into a humanistic world.

At times the printed page has felt limiting. At its best, a print medium can express a tangible quality that weaves together artwork, writing, and editing to evoke thought and emotion in a way that digital media just can't — but at its worst, it is a narcissistic collection of spent trees and energy that not many read. In order to grow, sometimes we have to move, with more urgency than we did before, and not settle into habit or complacency. This issue will be the last of its kind, as *Sitelines* goes on hiatus in order to explore new strategies that break down barriers between professions and people — fostering a societal and ecological dialogue that inspires as well as informs.

Thank you to all the contributors for their collaboration over the years, as we reimagined what *Sitelines* could be. We have passionately devoted ourselves to this work and are proud of what has been created and shared in our practice and profession.

¹ Inspired by the podcast *99% Invisible*, “a sound-rich, narrative podcast hosted by Roman Mars about all the thought that goes into the things we don't think about — the unnoticed architecture and design that shape our world” (<https://99percentinvisible.org/about/the-show>).

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Norma Ibarra, photographer

Born on Comca'ac (Seri) territory in the city of Hermosillo, Sonora, Mexico, Norma is of Yaqui and European settler ancestry. In 2009, she began reconnecting to her family lineage during the start of a solo journey across Turtle Island and beyond. She grabbed a skateboard at the age of 31 and while finding her balance, she also found the home she was searching for: an ever-growing community of nomads, athletes, and visual storytellers, dedicated to their craft and each other. Today, skateboarding, photography and Indigenous-led groups such as Nations Skate Youth and Takeover Skateboarding have offered Norma ways to connect with her own Indigenous ancestry after generations of displacement.

Norma's passion is to photograph the lesser-known stories of skaters and change-makers around the globe. Her photos tell stories of skaters as diverse, proud community builders, simultaneously challenging and independently broadening the definition of "skateboarder." Through intentional relationships with the land, community, and her own history, Norma documents a profound youth-driven lens around inclusion, representation, equity, resilience and belonging.

Norma Ibarra is a multidisciplinary artist and storyteller. See more of her work at www.normaibarra.com.



Eclectic edges Boulevard gardens of East Vancouver

By Saba Farmand

Much like the landscapes we work on, the general public does not always appreciate the design efforts and the stories that go into creating a boulevard garden. We may stop to recognize these spaces, promote them and then learn who is responsible for each creation. In this way we can appreciate the unique and individual nature of such local passion projects.

What began from a love for going on walks and taking photos with my phone led to a project on Instagram documenting boulevard gardens in my neighbourhood. My project defines a boulevard garden as any sort of garden installation that a member of the public installs on the boulevard between the road and the sidewalk.

This online and real-world environmental education and nature awareness project has helped to build and foster community, raise funds for an important local non-profit, and inspire more boulevard gardens to be created, while increasing the profile of landscape architecture.

Two years into this project, my Instagram account, @eastvan_blvd_gardens, had a few thousand followers, including a local community group. That group asked me to host a Boulevard Garden Walking Tour, which was a





success. Since then, I have hosted multiple other sold-out tours. The tours are by donation, and all funds raised go directly to the Mount Pleasant Neighbourhood House, an important non-profit that does amazing work with at-risk youth, recent immigrants and refugees. For the most recent tours, a corporate sponsor approached me and offered to match the donations received.

The tours really set this project off. A couple local celebrities and influencers attended and promoted the tours, which led to a spike in followers and even some attention in the national media.¹ People have told me the tour was a “powerful experience.” Others have mentioned that the tours made them laugh, cry, and feel inspired.

A memorable moment from my tour was meeting a follower of my Instagram page, Barbara, who is responsible for a story I share at one of the stops. This story is about a murder that occurred in the neighbourhood more than 40 years ago. Barbara told me this story as a comment under my Instagram post of the boulevard garden where the murder occurred. Barbara grew up next door, and during the tour she went on to share many interesting stories about the neighbourhood through the years. She said Mount Pleasant was a “rough part of town” back then and she and her family dealt with many police incidents and often did not feel safe. But despite its reputation, she says she still loves the neighbourhood. Positive initiatives like the Boulevard Gardens and tour make returning an extra special experience.

The tours demonstrate how boulevard gardening can help increase the environmental, social and economic sustainability of our communities. This is demonstrated through various stories and environmental education lessons I share at some of the favourite boulevard gardens in my neighbourhood. I also offer some personal commentary and insights from a landscape architect’s perspective. This one, for example, gets a lot of *aha*-s from the crowd: One of my favourite things about boulevard gardens is that they are each unique. They are often a bit rough around the edges, eclectic, and very reflective of their surrounding communities — which is quite different from typical open spaces or gardens that are open to the public. That is why, for me, it’s not so much about photographing only the beautiful boulevard gardens, but more about documenting each and every one to showcase the many

individual personalities and the different effects on the surrounding streetscapes.

These tours have brought together neighbours from all walks of life. Through shared movement, conversation and connection, there have been transformative and impactful community dialogues on public space, nature, and the importance of landscape architecture in public and community life.

So, what’s next for @eastvan_blvd_gardens? A current goal is to continue my series of posts that introduces the people behind the boulevard gardens and finding boulevard gardeners representative of our diverse city and the neighbourhood of East Vancouver. This is important to me, not only as a visible minority myself, but also as the curator of this Instagram project that is based in a neighbourhood which has historically had a large Chinese, Southeast Asian, and South Asian population. This coupled with the so-called nature gap² is my current focus as well as an overarching goal of my project: to help promote the profession of landscape architecture and an appreciation for nature to the general population and a more diverse audience.

1. In addition to being on the cover of the April 27th, 2022 printed edition of the *Globe and Mail* and the main story on its website for an entire day (www.theglobeandmail.com/canada/british-columbia/article-boulevard-gardens-east-vancouver-photos-tour/), @eastvan_blvd_gardens was also a guest on CBC’s *On the Coast* (www.cbc.ca/listen/live-radio/1-46-on-the-coast/clip/15907949-earth-day-walking-tours-east-vancouvers-boulevard-gardens), Global News’ *Morning Show* and featured in Scout.
2. Research shows that people of colour are far less likely to engage in nature-based outdoor activities, with historic discrimination being a large underlying factor. See <https://cnr.ncsu.edu/news/2020/12/nature-gap-why-outdoor-spaces-lack-diversity-and-inclusion/>.



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Maplewood Park, West Fargo, ND. Friendship swing.
Photo: Landscape Structures.

Beyond the checkmark

Designing playgrounds with accessibility in mind

By Jill Moore

Thirty-two years ago, the Americans with Disabilities Act (ADA) established the precedent for integrating disability into design, with adaptations for the children's play space being added throughout the years, and in 2019, those precedents became law in Canada. While these design standards have proved absolutely critical in creating accessibility, they only laid the standards for those specifically with mobility diagnoses. Per the US Department of Education, in the 14.3% of students with disabilities with written accommodation plans, only 1% of that user group actually has an orthopedic diagnosis — the target of accessible design laws. This has challenged the

outdoor play industry to provide a successful play experience for a broader range of invisible disabilities.

As a disabled person using a wheelchair full time, the greatest relief in the conversation of play has been that people are finally realizing that throwing a ramp into a design doesn't suddenly check a box and make the play experience fun or meaningful for disability. In the past five years in this industry, it's been fascinating to see not only how design has grown and developed around disability but also how community mindsets have expanded. A giant push has come to design beyond the bare minimum design standards — to strive for knowledge

on how to create meaningful play for invisible disabilities. How do we create diverse sensory spaces for those on the autism spectrum or with sensory processing diagnoses? How do we integrate wayfinding and context clues for blind/low vision users or Deaf/hard of hearing individuals? How do we meaningfully create invitation and a sense of place for those that traditional accessible design hasn't considered?

Take blind and low vision users as an example of a user group that was given a blanket solution, and that solution became the standard of designing for this demographic. For a long time, it was customary to add braille to our signage, and



Sensory play at Cooke School, Michigan.



Sandpipe Playground, NY. Blue Steps great example of color contrast.

a box was checked that due diligence had been done for blind users. However, current research released by the National Federation of the Blind suggests that as assistive technology continues to develop, only 8.5% of blind/low vision users can actually read braille. With braille no longer being a reliable tool for the target user group, designers are utilizing other parts of the sensory experience such as colour, texture and sound to make the design inclusive.

A fairly common diagnosis for visual disabilities is being able to see light and colour but having no depth perception. For example, if a mother and her child with a visual disability were walking on pavement and encountered a patch in the asphalt that was a darker color, the child would walk around it, not knowing if it was a hole in the ground. Designers can accommodate for that by adding colour contrast to changes in elevation such as steps or play elements that contrast to the colouring of the surfacing. Adding music and auditory cues into a playscape assists with our wayfinding. If we hear a chime being played on the playground, and we know where that chime is, it's going to help us know where we are in relation to the sound. A fantastic example of auditory usage that I recently encountered is at the Franklin Delano Roosevelt Memorial in Washington,

DC. As you progress through the monument, you encounter many elements designed to be a tactile and auditory experience. Many of the exhibits placed throughout the memorial utilize tactile cues for an inclusive experience. For example, when telling the story of how FDR designed his own wheelchair, a small bronze statue is affixed to the pedestal next to the text for users to touch and feel what that design "looked" like. A small button is surrounded by textured cues that a user can press to start an audio of what's said at the exhibit. Anyone experiencing the memorial can receive the exact same information, whether they're sighted or not.

The same principle of increasing usability to our other sensory experiences also applies to our Deaf and hard of hearing users. Although residual hearing varies, many Deaf and hard of hearing people are reliant on vision and tactile sensory experiences, while Deaf/Blind people are most reliant on tactile experience and even olfactory experience, alongside residual hearing and vision. Gallaudet University in Washington, DC is a school specifically for the Deaf and hard of hearing community. During the past decade, they have begun to examine how to design for the sensory experience of those who don't hear. With what started with building redesign titled DeafSpace, the conversation has expanded to the outdoor

landscape as well, thus formulating guidelines for DeafSpace. One of the principles in DeafSpace is listed as "sensory reach." Without being able to rely on auditory cues, Deaf people are reliant on what they can see going on around them and may not be able to remain aware of happenings behind them. Designing areas with wide visual range, or an area to "read" their surroundings, provides more situational and environmental awareness. Additionally, providing spaces that have a degree of enclosure at one or two sides can enhance spatial awareness and comfort.

Another factor is considering mobility and proximity, such as the width of pathways and sidewalks. Per the ADA, standard compliant sidewalk design dictates width be at minimum three feet. Deaf individuals benefit from a wider distance (six to eight feet minimum, and 10 feet minimum recommended for high traffic sidewalks) to maintain clear communication if they're signing to one another, a parameter hearing people may often disregard. Lighting and the colouration of the playground also factor in reducing eye strain and maintaining clear visual communication. Lastly, we evaluate playground designs to ensure at least one slide in the scape isn't made of plastic. Plastic generates static, which can discharge medical devices such as cochlear implants. These implants are



Providence Playscape at Riverfront Park, Spokane, WA, showcasing all-ages accessible free-standing motion play.

common for those who are hard of hearing, and a static discharge is a costly fix. A roller slide, or a slide made of stainless steel or concrete, allows the user to seek out the best fit for them.

Good design for disability should never be a call out. In my lived experience as a disabled person, the designs I applaud are the designs that remain seamless. The World Health Organization defines disability as the complex interaction between a person's body and the society in which he/she lives. This is to say that my disability is going to be seamlessly integrated into my daily life until I encounter poor design. An example for my very visible disability is trying to maintain a conversation with someone in a poorly designed environment. I was at a brand-new hotel, having a conversation with a potential customer. As we moved towards our destination, we were faced with two small steps down to the street. Instead of a gradual slope, my route of access forced me to go back through the building and around to go down a narrow ramp that wouldn't fit two people, thus ending my conversation. Seamless design would have been a gradual slope out of the building that we could have both used in parallel.

The same premise goes for invisible disabilities. A well-designed space is never going to call out any of its users for needing

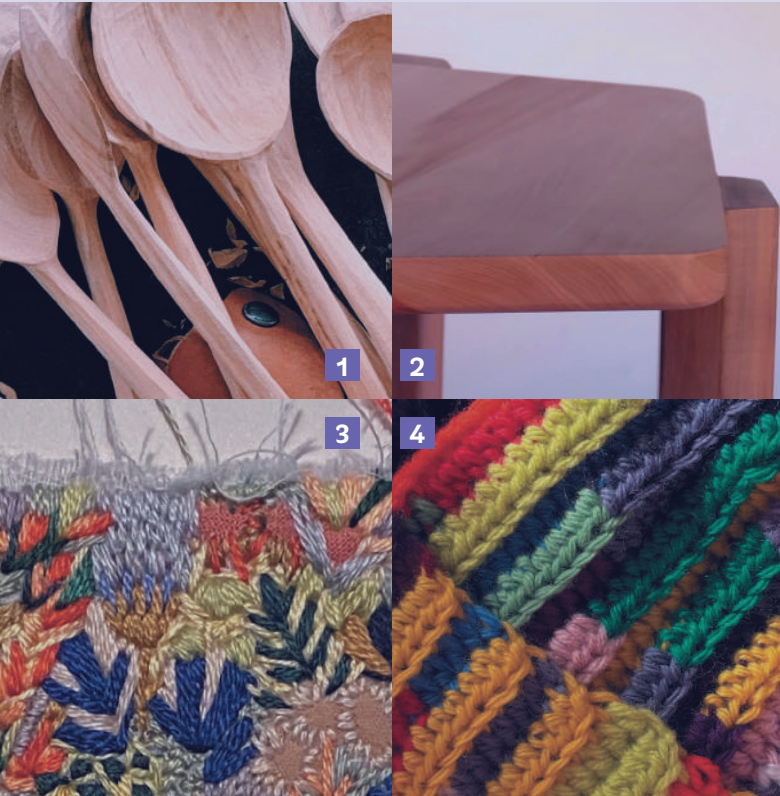
a different degree of support. A well-designed space does not isolate individuals based on needs; it doesn't highlight differences in needs, and it doesn't add undue complexity or additional effort to utilize its intentional features. I've been to a play space that relegated disabled users to a specific portion of the playground. The wheelchair-swing (which often only fits one user in a wheelchair and can't be propelled

independently) was placed next to the sensory wall, and a small fort space was plopped in the middle of this playground that was very other. If any child needed the support of a quiet space, or a sensory experience, or an activity they didn't have to transfer onto, they'd have to head to this "designated" portion of the playground where disability was both stigmatized and placed on display instead of being seamlessly integrated into the play experience. Too often, inclusion gets the reputation that it's all about designing for disabilities, when in reality it's designing for abilities too. Apple's iPhone has become an icon of good design. If you search, you find that the iPhone is jam packed with accessibility features for all sorts of diagnoses. It's not advertised as a "disability friendly phone;" it's just known as an example of exceptional design. An inclusive space is no exception to this rule. Seamless Universal Design considerations take our designed spaces from accessible and minimally usable, to iconic and welcoming places that encourage all to participate. Belonging, vitality, engagement – all of these become a byproduct of thoughtfully integrated design.

Jill Moore, Inclusive Play Specialist, Landscape Structures, works with the LSI team in adding user voice within product development, as well as inclusive design practices.



Maplewood Park, West Fargo, ND.



My own thing: side hustles

Landscape architects and designers are often skilled in a specialized subject or field unique to their industry, but sometimes the humdrum of the 9 to 5 is not enough. So, what fuels those creative fires?

Those with creative and artistic spirits often have passions that go beyond the everyday; they begin to explore unique projects and media that allow them to push the boundaries of their skills and curiosities. Sometimes they are just a creative outlet, or sometimes these develop into something much more like a business.

The idea of a side hustle is nothing new, but they are often not talked about, and we really have no idea what pure talent is around us. We are surrounded by amazingly skilled designers, artists, woodworkers, tinkerers and so much more. And so, we sought to showcase some of the unique talents around us and provide just a small glimpse of what some of our fellow designers are doing as their side hustles.

—Sitelines Editorial Advisory Board

1 Alix Tier

Alix Tier (she/her) is a landscape designer. [@atelier.spoon](#)

What is your side hustle and how did you get started?

Atelier Spoon was born from a love of nature, wandering and working with my hands to create functional objects. It started in 2020 with some old carving knives my dad sent me and some spare pandemic time. Soon I was scouring the nearby forest for some downed trees, and a few days later, with some sore hands, I had my first wooden spoon. I haven't left home without my tools since.



What is special to you about your personal practice?

The process of working with my hands to shape an object while being informed by the past life of the wood I use is a very special part of Atelier Spoon. All the wood I use has an origin story and sharing that with those who purchase a spoon or other object is a very fulfilling and exciting part of my practice.

How do you balance this self-expression with other aspects in your life?

Carving for me is about feeling good, connecting to spaces around me, and getting into a groove. Although I often wish I scheduled time to make, it doesn't usually work that way. However, I rarely leave home without my tools and rarely come home without a few



new objects. I don't have any formal training, but I grew up in my dad's shop and have learned a lot about wood and working with my hands from him.

How has technology influenced your practice outside of your regular job?

Technology has allowed me to share my work with a larger network of people and to connect with other makers in the community. Although a large part of my practice is about working with my hands and taking a break from technology, Atelier Spoon would not exist without it. Technology challenges me to continually try new approaches and techniques and test out new ways of making through trial and error.

What advice would you give to those who want to pursue a side hustle but may be hesitant?

Take time to let yourself explore and be creative without too much attention to the result. Take small steps and ease yourself into it – those hesitations will slowly disappear as you become more comfortable in your practice and sharing it with others. It's scary to put your creative side out there, but in the end it's worth it and you'll be proud of yourself for getting out of your comfort zone to pursue something new. ■



What is special to you about your personal practice?

Materially, it's a tactile way to respect one of the gifts that trees provide – wood. Personally, it engages with traditional practices of my ancestors, and experientially it connects the natural places that inspire me with my life at home. All the money I've made has gone into buying more tools or lumber. There is value for me in simply living among the objects.

How do you balance this self-expression with other aspects in your life?

My day job involves a lot of computer time working on complex, long-term projects — I love what I do, but I find building something by hand restorative. The access to the cooperative workshop I am a part of sets a schedule by virtue of sharing space. I am constantly sketching ideas for the next session. I read a lot of books and am grateful that building and furniture making was always present growing up.

How has technology influenced your practice outside of your regular job?

I am interested in the sort of magic or medicine of analog technology. I'm not judgmental of people exploring 3D printing or CNC, but I know it's not for me. I need a break from the screen and am interested in how certain hand or power tools facilitate physical connections with the natural world or act as extensions of the body to illustrate thought and expression.

What advice would you give to those who want to pursue a side hustle but may be hesitant?

A source of creativity for me is drawing connections between different interests — hiking, woodworking, design — even concepts like decolonizing can apply to learning European ancestral craft practices or seeking reciprocity in acquiring and using local materials. I try to be generous with my inspiration, process, and work and am continually humbled and encouraged by the communities of people on their own journeys. ■



2 Jordan Lypkie

Jordan Lypkie (he/him), settler on Musqueam, Squamish, and Tsleil-Waututh territories, is a planner with the Vancouver Board of Parks and Recreation. @jordanlypkie

What is your side hustle and how did you get started?

I design and build furniture under a project I'm calling *Objects of Encounter*. I have always enjoyed working with my hands, and both sides of my family have traditions of woodworking. In architecture school, I found solace in building wooden models. After graduating, I wanted to explore the craft more widely.





3 Sophie MacNeill

Sophie MacNeill (she/her) is a landscape architect, artist and teacher. [@sophie.macneill](#)

What is your side hustle and how did you get started?

I consider the act of stitching and related textile arts to be more of a creative practice than a side hustle. While I've often stitched to mend and make things, it wasn't until I was out of grad school and overwhelmed with the stress of being new to a demanding profession that I turned to stitching as a dedicated practice.

What is special to you about your personal practice?

While the extra money is nice, the real value for me is the process and practice of slowing down and working with my hands.



How do you balance this self-expression with other aspects in your life?

Unless I'm working on a commission, I don't keep a strict schedule for stitching. When I get the impulse to create, it's absorbing but very hard to drum up if uninspired. During the summer I typically don't stitch much because tending my garden keeps my hungry hands well fed. But I know once the weather cools, I'll return to my needle and thread.

How has technology influenced your practice outside of your regular job?

My first impulse is to say that it's been the absence of technology and the return to slow, handcrafting that's really influenced my work. But I think technology has informed my practice in the way it allows me to connect with other stitchers and artists from around the world. That's been a really positive experience.

What advice would you give to those who want to pursue a side hustle but may be hesitant?

I would encourage them to follow their curiosity and compulsions wherever they may lead. It doesn't have to be all or nothing — there is no wrong way to explore a personal creative practice, unless it's causing you stress! ■



4 Tatum Lawlor

Tatum Lawlor (she/her), is a landscape architect + public realm planner. [@tatummakesstuff](#)

What is your side hustle and how did you get started?

I've been side hustling fibre craft things since I was about 12, when I

sold kid-sized shorts made from bandanas and a pattern I found in a Martha Stewart magazine at a neighbourhood arts market. I've been learning knitting, crocheting, cross-stitch, embroidery and sewing and selling the things I make ever since! Right now, my side hustle is selling one-of-a-kind garments, such as upcycled quilt coats and knit and crochet toques.

What is special to you about your personal practice?

It's the perpetual learning and creative problem solving that I love most. I also find the repetitive action and close focus of crafts such as knitting and crocheting meditative. Though, the extra money to put towards my student loan is also great.

How do you balance this self-expression with other aspects in your life?

I used to be pretty ambitious and strict with trying to make deadlines for myself but I've recently decided to leave that behind. We have enough deadlines as it is! I try to let my creativity lead and only take on projects I really feel inspired to do.



How has technology influenced your practice outside of your regular job?

This is why I can never seem to settle on one craft and why I honestly never want to box myself into making and selling one type of thing. Access to people sharing and teaching their skills online is so abundant — I'm constantly seeing new types of garments I want to make and new skills I'd like to try. I haven't explored quilting much yet — I think that might be next!

What advice would you give to those who want to pursue a side hustle but may be hesitant?

As soon as I made the main focus of my side hustle creative expression and not just making money and trying to market a specific item over and over, it became so much more fun, and I felt a lot less pressure to perform. At the end of the day, it's your precious time and creativity. Do whatever you want with it! ■



Vancouver meadows

By Jack Tupper

The areas where habitats overlap are commonly the points with the richest ecosystem, as these tiny worlds and their inhabitants collide and overlap like a Venn diagram. For example, it has been shown that peri-urban landscapes, the space between urban and rural contexts, have the greatest diversity of invertebrates due to the intricate array of landscape typologies.' This diversity is an exciting prospect for our urban realms, as it can be hypothesized that if we strive to incorporate a similar patchwork of landscapes typologies within our cities, we can also strive for a similar diversity of species. So, where can this hypothesis be put into action easily? Lawns.



Our cities are covered in these vast blankets of monocultural landscapes; in certain areas they are perfect for humans to lounge upon, but the extent at which they are applied quickly surpasses human function and extends into “what else are we supposed to do with this space?”

This degradation of natural landscape to suit alternative functions has been associated as one of the major causes of wild bee loss² and could provide the greatest improvement to our ecological health, if we begin to tear away at its applications. The simple transition of a lawn to alternative forms could have immediate positive rewards on our urban ecology. Furthermore, a diverse landscape has been shown to have positive effects upon the health of humans, with increased diversity in landscapes reducing stress levels and increasing recovery times.^{3,4}

The Vancouver Park Board has approximately 1,500 hectares of publicly accessible park space, just under half of which (700 hectares) is manicured lawn and planting beds. A vast area comparative in size to the entire downtown peninsula, on top of which, the Parks Board then maintains around 20 linear kilometres of lawn boulevards and medians, such as King Edward, 16th Avenue and the Cambie Corridor. All of these areas, unsurprisingly, need a vast fleet of crews to maintain them.

In the spring of 2020, the pandemic caused a hiring freeze on all seasonal staff and so the team of maintenance crews needed to maintain Vancouver’s lawns was suddenly unavailable. In response, a targeted strategy was developed for the remaining crews to focus their mowing on areas of high demand. This left 14 hectares of lawn to grow into naturalized meadows, which were to become the first official study sites for the Parks Board’s Naturalized Meadow Strategy.

It has been shown that wildflower meadows have significant impacts on beneficial species diversity and abundance.⁵ Could a similar strategy focusing on turf-transitioned meadows have similar effects? To understand exactly what these meadows offered the city, a research project was developed by Park Board staff that aimed on repeating research set up in 2015. Across the summers of 2020 and 2021, each naturalized meadow was assessed for varying aspects: pollinator abundance and diversity, floral abundance and diversity, soil moisture content and ambient temperature.

Encouragingly, the data collected showed that the simple act of reducing mowing within Vancouver’s parks allowed seed and existing established species commonly found in lawns to establish and flower. These species, such as Sealheal (*Prunella vulgaris*), Hawkweed (*Hieracium canadense*) and Yarrow (*Achillea millefolium*), among others, subsequently encouraged an array of pollinators into our parks, and both invertebrate species abundance and diversity were found to increase with the presence of meadows. The adjacent comparison lawns were found to support far fewer species of insect, with non-pollinating flies



and wasps being the primary (Fig. 4). Jens Johnson, a UBC PhD researcher, found that in “traditional” Vancouver parks just two bumblebee species were commonly found, but in the parks that grew naturalized meadows, bumblebee diversity rose to five or six differing species, one of which, *Bombus nevadensis*, was particularly uncommon within Vancouver and was never detected in parks without meadows.⁶

Similarly, as found in previous research,⁷ the long grasses limited solar and wind exposure at ground level and the soils were found to retain more moisture through the summer season and remain around 1.2 degrees cooler than adjacent lawns — all crucial when considering not only human comfort and health, but also the impacts drought may have on urban tree health and vegetation.

The data collected across 2020 and 2021 showed clear support for transitioning areas of lawn to meadows if we want to sustain and support beneficial species. However, for all the research and expertise can highlight the positive effects these meadows may offer our urban realms, if there is a lack of public support and political will, they are often threatened to be mown down and removed from our focus.

As landscape architects, planners and ecologists hired by the Vancouver Park Board and other municipalities, we are tasked with the role of furthering the value of our parks and their standards to ensure they exceed demand. However, when new approaches, such



as converting lawn to meadow, conflict with the culturally understood nuances of what an urban park should be, our expertise is soon questioned, and we become inundated with criticism. An ecologically rich meadow can become politicized and embody the “failing standards of our municipal governments.” Never more so than in an election year, such as 2022. But, in foresight of these criticisms, a series of simple strategies were initiated to try and counter these perspectives.

In 1995, Joan Nasauwer wrote “Messy Ecosystems: Orderly Frames,” in which the concept of Cues for Care was explored, and this article became foundational in the development of Vancouver’s meadow project. To some, a meadow holds positive connotations, such as memories of the rich rural landscapes from childhood homes. To

others, a meadow is a forgotten piece of land reminiscent of recessions or disregarded space. Either way, with a few simple cues for care, meadows can be exhibited as intentional space.

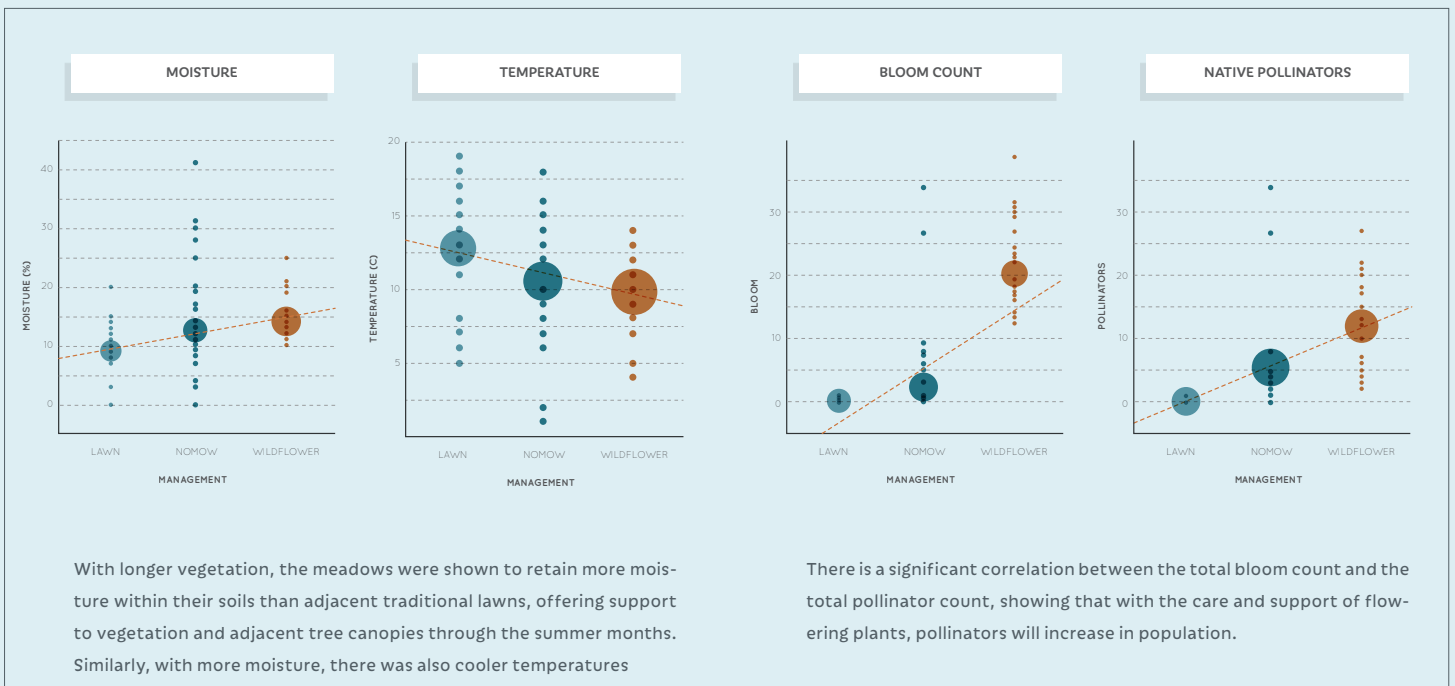
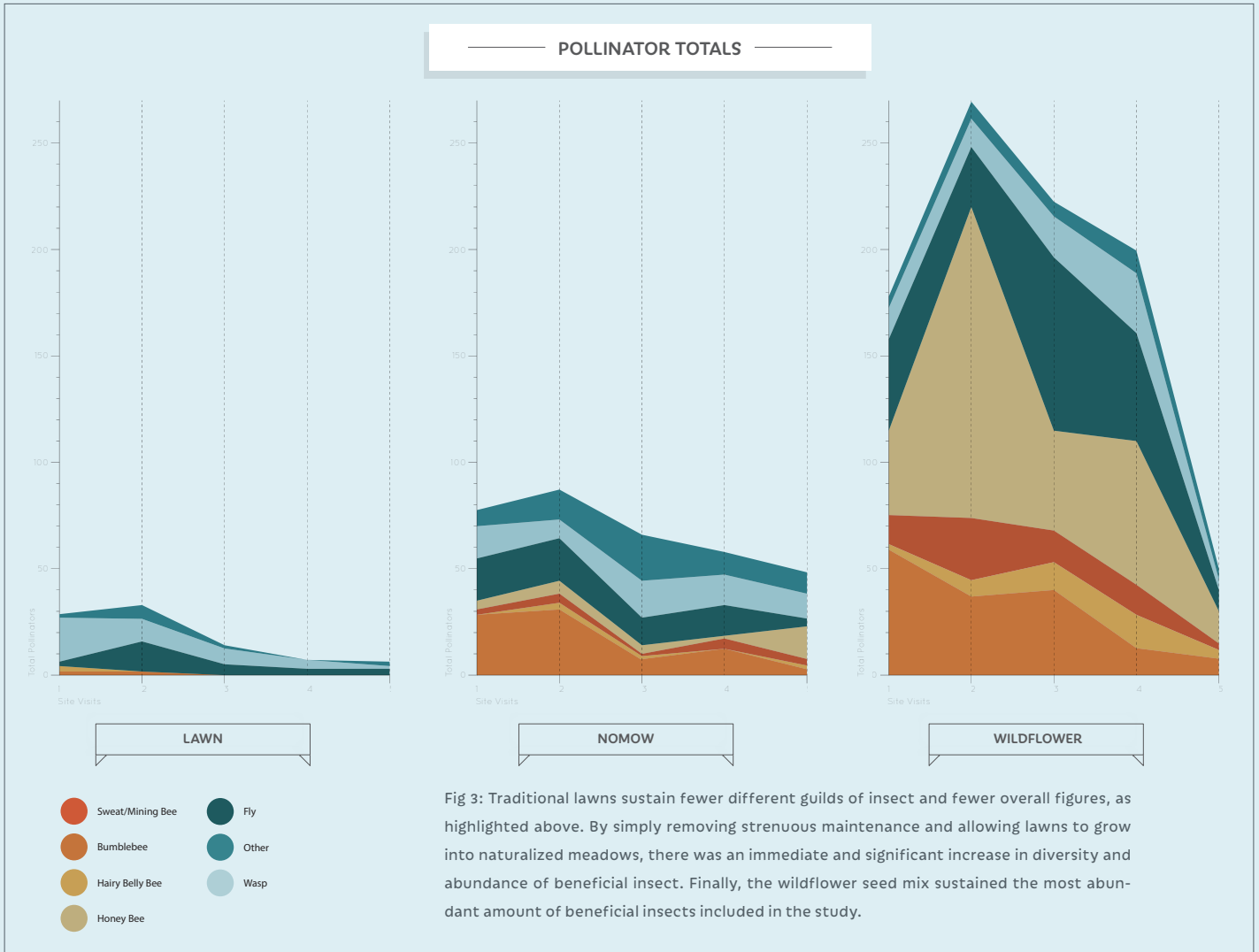
To start, every site has clean and defined boundaries, mown on the same schedule as standard park lawns. These mown boundaries begin to frame the meadows and exhibit them as intentionally maintained patchworks within our parks. Mown trails then guide more hesitant residents through the meadows on clear footpaths, often opening out into wider picnic areas that are immersed within long grass. At all major entry points, information signs display that these are intentional spaces and explain some of the key benefits and provide contact details for those involved.

But perhaps the largest puzzle within the meadow’s initiative is encouraging diversity in the floral community. One of the more common criticisms heard from residents and political figures is that these are not wildflower meadows but forgotten spaces. The lack of floral diversity is inaccessible to those who are not biocentric, but it has been found most are accepting of meadows if they are medium height and full of colour,⁸ perhaps because they are identifiable as a wildflower meadow.

Naturally, within the first two years of meadow management, native species of flora will establish themselves and the adjacent grass species will balance out through careful maintenance.⁹ However, if municipalities bolster this transition by introducing hardy, native annuals and perennials, then the transition to a meadow aesthetic can be streamlined and more inclusive. As such, each year staff experiment with new native and beneficial perennial varieties to encourage bloom diversity and positive feedback. Thousands of native hardy plants, chosen for their known pollinator partnerships, are now grown and distributed throughout the meadow network in the hopes that, once established, they will become the colourful landscapes people expect.

Moving forward, as we continue to maintain and expand these meadow areas through Vancouver, our understanding and expertise will similarly evolve. Working with our maintenance crews and the public, the next steps will be looking to create self-sustaining naturalized meadows that require even less effort to diversify floral species. Over time, these naturalized meadows will grow and mature with age, eventually supporting native species to flourish within our city. Just one piece of our city’s future ecological patchwork.

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Example of sheltered doorway with security gate, motion lighting and video surveillance signage.

The objective of this study was to investigate how environmental and structural changes to a trans outdoor work environment impacted sex workers in Vancouver, Canada. The issue of changes to the work area arose during qualitative interviews with 33 trans sex workers. In response, ethnographic walks that incorporated photography were undertaken with trans sex workers. Changes to the work environment were found to increase vulnerabilities to client violence, displace trans sex workers, and affect policing practices. Within a criminalized context, construction and gentrification enhanced vulnerabilities to violence and harassment from police and residents.

Gentrification — a global urban strategy tied to the development and accumulation of wealth that transforms neighbourhoods to suit new residents^{1,2} — is under way in the study setting. New businesses have opened in the neighbourhood and there is residential development, including condominiums, in an otherwise industrial area. Certain residents and businesses routinely called the police and/or verbally harassed sex workers, as described in this field-notes excerpt:

Scarlett discussed how she has complaints from the café on that block because they don't like that traffic comes down to the area for sex work and not for their business. She felt frustrated by this response since she has been working there for over 15 years and is a business owner herself in her line of work. Sex workers

Urban space morphology: Walking with sex workers

As professionals engaged in the practice of improving human lives through specific spatial ordering, Sitelines consistently seeks to include underrepresented perspectives, which is why we have chosen to include this journal excerpt from Sexualities. Sex workers are classified by both the Vancouver Police Department and the City of Vancouver as a vulnerable population where First Nations and Indigenous people are overrepresented; the mandate is to “focus on balancing the needs of the community and the safety of the sex workers” (VPD Sex Work Enforcement Guidelines, 2013); construction and development can affect diverse communities and often displaces less visible populations. This may not be a social problem landscape architects can alone change, but awareness and sensitivity opens the door to consideration. The practice of sex work is made more difficult by spatial changes in the urban environment, and this often displaces people and creates more dangerous working conditions. Using ethnographic qualitative methods in sociology, criminology and population and public health, this article is valuable in thinking about inclusivity in landscape architecture and urban design in terms of participatory design and public engagement.

—Sitelines Editorial Advisory Board

Excerpted from “The impact of construction and gentrification on an outdoor trans sex work environment: Violence, displacement and policing” by Tara Lyons, Andrea Krüsi, Leslie Pierre, Will Small and Kate Shannon, originally published in *Sexualities* (2017) Vol. 20 (8), 881–903. Reproduced with permission.

are a part of the neighbourhood as workers and many also live in the area; however they are framed as outside, or not belonging, to the neighbourhood.

When discussing how certain residents were hostile Scarlett commented, “Well, why did you move here?” She highlighted how gentrification involved the arrival of new residents and businesses who disapprove of sex work(ers) despite the presence of an established sex work environment.

Physically altering buildings was another way that businesses attempted to disrupt sex work activity. Over the course of the study it was reported, and we observed, that increasing numbers of businesses were installing gates to the front of their buildings. In an ethnographic

walk, we came across a covered entrance to a business with a new gate installed. Phoebe (Indigenous, 39 years old) said sex workers used that space to get out of the rain and to do their makeup, whereas now the gate was locked at night.

Participants actively fostered relationships with neighbours and businesses as a way to negotiate structural vulnerability. Scarlett explained that a key part of her work was establishing good relations with businesses as a way to prevent calls to the police. She also described efforts to establish positive relationships with new businesses because she felt there was a risk that new businesses would not interact with her amicably. Thus, gentrification and shifts in the neighbourhood made more work for Scarlett. Similarly, Phoebe said sex workers try to be quiet and respectful of the residents.

The displacement of trans sex workers was a central theme running through the findings. Construction activity, policing practices, and gentrification all worked to displace sex workers and clients. As a result participants attempted to relocate and/or to service clients farther down the railway tracks. It was reported, and we observed, that there were fewer trans sex workers in the area during and after the construction. It was unclear however, where trans sex workers had been displaced to.

Across many settings, efforts to “design out crime” and urban planning can often recreate power and class differentials, whereby marginalized individuals are excluded from public spaces.^{3,4} Social cohesion among sex workers has been found to support the negotiation of condom use with clients^{5,6,7} and thus environmental and structural

changes that fracture sex workers’ relationships exacerbate structural vulnerabilities. Policing practices continue to be instrumental in processes of gentrification as demonstrated in our study. For example, making complaints against sex workers is a common tactic used by residents and businesses to remove sex workers from an area.⁸

Environmental and structural changes in a context of cis- and heteronormativity, criminalization, and colonialism increased the structural vulnerability of trans sex workers, particularly Indigenous trans sex workers. As such, our study underscores the need for greater attention to structural vulnerability when planning construction, residential development in areas where individuals disproportionately impacted by social and structural inequities live and work.

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Ecology and espionage: Remembering in the landscape of the Vancouver Wireless Station

By Hannah Baird

East of Ladner, BC, nestled between farms and the Boundary Bay Airport is a copse of trees housing the North Forty Park Reserve. This off-leash dog park has tree-lined paths and fields of tall grasses for dogs and walkers to enjoy, but as one traverses the park, one begins to notice faded road markings on the path, stairs buried in the brambles, and flora found in gardens. These are the relics of the Vancouver Wireless Station – a 40-hectare, gated military camp for those in the Canadian Royal Signal Corp and their families. The Vancouver Wireless Station (VWS) was a self-sufficient town, complete with its own school, sports teams, clubs, church, playground, and grocery store.¹ It was a town where people raised families, while also gathering intelligence on Soviet transmissions during the Cold War.² This history of military activity and domestic lives may be hidden in the trees, but remains in the ruins left on site, and recently in signage installed by the Delta Heritage Society. There

is value to leaving human history in the landscape while it renaturalises, as a palimpsest, or the entwined histories will be forgotten. This land holds tales of family and community, but also a cautionary one of the damage our lifestyles cause, and militant involvement – forgetting means a loss of the good, and lessons not learned from the bad.

The Canadian military acquired the land in 1941 to train pilots.³ After the war, the land was transferred to the Canadian Royal Corps of Signals and reopened in 1949 with some of the “most sophisticated signals intelligence equipment in the world at the time.”⁴ Single men lived in dorms or small houses, and married couples got their own home with a garden. Sidewalks and streetlights were added in 1950, and roads in 1951 with speed restrictions to keep children safe as they roamed the town. 1950 also saw the opening of the school, originally with one teacher instructing grades one to three in one room, before expanding to

teach up to grade six, with more teachers, a military funded kindergarten, and an active PTA. The community had a sizable sports field that hosted women’s hockey and men’s softball. They had various social clubs and the mess hall hosted parties and events. The VWS could boast as much social life as any other small, suburban town. This tight-knit community of less than 300 was welcoming, making families like the Shiu’s, a Chinese-Canadian family, feel welcome despite cultural differences. Margret Shiu recalled in 2015 to a local history project that they ate Chinese food every night, met kind people and friends, and felt integrated into the community.⁵ A teacher at the school, Jean Brown, said to the Delta Optimist in 2012, “The army was wonderful as far as the school was concerned” and how “you felt very secure on the base” not having to worry about children running off, or people getting in.⁶

Children did have to be mindful in their play of sleeping and working adults, though, as



Fig. 1. Margret Shiu’s 3 children and another child posing on a sidewalk (Margaret Shiu, *Children on the sidewalk*, circa 1950s)



Fig. 2. View east from one of the paths in the North Forty Park



Fig. 3. View from road to the main gate of the Vancouver Wireless Station (Jim Troyanek, *Main gate to Vancouver Wireless Station*, circa 1960s)



Fig. 4. View of entrance to North Forty Park Reserve

Martha Shiu, Margret’s daughter, recounts, since the station operated 24 hours.⁷

This community was insular, but it was far from isolated. There was a morning and evening shuttle into Ladner village for shopping and a monthly one to the Woodwards in New Westminster. They also had weekly visits from Mr. Ho of Ladner to sell fish to the residents. Former resident Bill

Rodgers, in the same interview as Brown, said, “Everybody got married with someone from Ladner,” including himself.

The largest legacy of the town is the approximately 2,000 trees and shrubs planted.⁸ These include, but are not limited to, blossoming cherries and plums, grand oaks, willows, and what may be abandoned Christmas trees, as well as shrubs and plants,

like the invasion of daffodils, hyacinth, and lily-of-the-valley, the striking Japanese quince, and even lawn-quality grasses all spreading wildly. These species were left to go feral – reclaimed walls and paths, creating what, at first glance, looks like a natural landscape.

The station closed in 1971, when the installation of power lines to Ladner disrupted the signals, so operations were relocated to Masset, B.C,



Fig. 5. Scenes from the North Forty Park Reserve showcasing non-native species and infrastructural ruins



have created a space that captures the sense of loss for a community that no longer exists while neither glorifying nor hiding the military involvement. The addition of signage to tell the story of the town adds to this, with pictures and facts to narrate the place as both town and army camp.

This site can be classified somewhere between a novel landscape, where alteration by humans has caused ecological systems to change,¹⁰ and a hybrid landscape, where human cultivation and wild processes exist together.¹¹ As noted by historian and designer, Sara Jacobs, “past uses that created the conditions for novelty in the first place have at best been overlooked, or at worst, ignored or even exonerated” in design on novel landscapes.¹² The VWS was left unmanaged for decades, and is full of introduced and naturalised species. Many people prior to the transformation to the park were unaware that this land was anything but natural. Nature has reclaimed this site, but it was humans who planted the species, and use the park. The human elements of landscape show how “ecology is always political, always historical and always social”, even when the plantings grow to obscure the ruins.¹³ For better or worse, this site has a history steeped in war, family, ecological alteration, (and is stolen land of the Coast Salish People, though this is not addressed in more detail in this paper), and this history should not be dissociated from the landscape.

By leaving the remains on site, visitors can see the ghosts of what once was, the effects of introduced species to the ecosystem, and



both a sense of temporality of our built environment, as well as the lasting effects of our lives on the land. In the choice to leave this landscape to grow and decay, the history is kept alive. Intervention to remove the ruins or to remove non-native species would provide nominal benefit to the environment, but erase the past from memory. The lives lived there and the military history could be forgotten, and the ‘wild’ landscape assumed to have always been. Humans are irrevocably entwined with the landscape, and our presence affects the land as much as the land shapes our lives and memories.

Winner of the BCSLA's Philip Tattersfield Essay Competition 2022.

and all 120 buildings, save for the signals operation building at the airport, were taken away. 112 were sent to four First Nations bands, and some were repurposed locally.⁹ All that remains is concrete and metal infrastructure, and the sanitation hill. It is a ghost town consumed by the trees they planted. The site lay vacant until 2009 when it was added to Delta's Heritage Register and repurposed as a dog park with plaques to share the history.

History can be hard to preserve without monumentalizing or altering the landscape further – how should one memorialise the community and service without glorifying the military? The ruins left in the North Forty landscape, although not consciously designed,

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Promoting urban biodiversity by understanding “environment”

By Kevin Brown. Artwork by Gustavo Manzano.

Human populations are growing globally and increasingly concentrated in urban areas. Populations of many wild species are declining. Maintaining and enhancing native biodiversity, natural infrastructure,

and healthy ecosystems in cities can also add to regional biodiversity, create urban environments that are healthier for human and non-human residents, and mitigate local impacts of climate change.

Characterizing urban biodiversity

We should know how much biodiversity we have when attempting to enhance it. But knowing that in the urban landscape is

difficult. We are biased toward what we can see; many species may remain unknown to us unless we employ emerging technologies that extend our sensory perceptions.¹ Given the difficulties of counting numbers of all keystone species, we may instead focus on numbers of few desirable or “charismatic” animal species. Or we may infer *potential* biodiversity from the presence of indicators; for example, certain visible features of the physical environment or indicator plant species. Indicators are often applied in classifying and managing “natural” landscapes. However, the urban landscape is a collection of novel ecosystems with highly fragmented and often small natural areas, disrupted soils, introduced species, and altered thermal and hydrological regimes. Hence, indicators developed to infer biodiversity in natural landscapes may be poor predictors of biodiversity in urban landscapes. Much biodiversity in our urban environments is largely invisible to us.

What is environment in the context of urban biodiversity?

Environment is often used as a general term, for example “the air, water, or land in or on which plants animals and humans live,”² but it’s useful to consider environment as organism-specific, in other words, from the perspective of the individual organism.

From that perspective, *environment* can mean the specific combination of energy (described by temperature, light and sound), substances (for example, the abundance of mineral nutrients, water, gases) and other organisms (for example, symbionts, mutualists, predators, prey) that directly impact the organism’s survival and reproduction. Environment can also mean that which a given organism senses, its *Umwelt*.³ The two perspectives complement each other. Some aspects of urban environment may be undesirable for both humans and other organisms; others may be desirable (or at least acceptable) to humans but detrimental to other organisms. The *Umwelt* perspective recognizes that other organisms can sense and respond to stimuli that humans cannot sense and are oblivious to.⁴

Our municipal biodiversity policies would, ideally, recognize how environmental requirements and *Umwelt* differ between humans and other organisms that utilize urban

areas. However, we know relatively little about how native biota perceive and respond to characteristics of urban environments. Retaining large areas of connected “natural” habitat, combined with deep observation and experiential knowledge can largely compensate for not understanding how different species perceive their environment and what they require, but this is often not possible or sufficient in heavily urbanized settings.

Urban temperature

Temperature, light, and sound are aspects of environment that profoundly affect humans and other organisms, differ in how they affect and are perceived by different organisms, and differ between urban and more natural surrounding landscapes. One example of species difference in temperature perception and response is between poikilotherms (“cold-blooded”) animals (insects, fish, amphibians, and reptiles) and homeotherms (“warm-blooded”) animals (birds and mammals). Managing body heat is critical for maintaining metabolism and detecting heat may be critical for locating prey. Heat is associated with infrared radiation. Humans, as a rule, cannot see in the infrared spectrum nor are we sensitive at detecting body heat from other organisms. However, appropriate technology allows us to “see” heat; that technology can be useful in characterizing urban biodiversity.

Cities typically have higher daily maximum and minimum temperatures (the urban heat island effect) than do adjacent rural areas, differences exacerbated by microsites in the city and by climate change. Extreme high day and night temperatures can impact urban biodiversity by, among other things, differentially affecting the abundance and diversity of insects, including native bees,^{5,6} damaging pollen⁷ and impacting tree health and survival, for example, by increasing water stress and driving insect pest outbreaks.⁸ Municipalities can lessen the urban heat island effect by minimizing the amount of impervious (and especially, dark) surfaces that absorb and re-radiate heat and by appropriately increasing canopy cover by tolerant tree species, which cool by both shading and through transpiration.

Urban light

Artificial lighting at night is ubiquitous in urban areas, considered essential for public safety and is aesthetically desirable (except to star gazers!). The right amount and type of light is critical to other organisms. Daylength

is a cue for seasonal and lifecycle processes in plants and animals; photosynthesis is driven by the intensity of light in roughly the same spectral range as that visible to humans.

Many organisms sense light spectra that humans either don’t or barely detect. Most other animals, notably pollinators, detect and rely on light in the UV spectrum,⁹ and plants detect both red and far-red wavelengths; among other effects, the red: far red ratio can influence timing of germination and tree crown form. Humans barely (or don’t) detect UV and far-red wavelengths.

Urban light detectable and widely utilized by humans impacts the behaviour and survival of many species that have adapted to natural and predictable light regimes. (Indeed, artificial light has long been used to attract and trap “nuisance” insects and deter unwanted mammals.) For example, the spectra used in artificial light can impact other organisms. As Yong states, “Red can disrupt migrating birds but is better for bats and insects. Yellow doesn’t bother insects and turtles but can disrupt salamanders... Blue and white [lights] are worst of all.”¹⁰

Extended daylengths from stationary lighting can accelerate the timing of budburst in perennial plants, increasing the potential for frost damage or exposure to fungal pathogens and insect herbivores. Urban lighting alters insect behaviour; around stationary lights, some species retreat, while others perch underneath, may be stunned, or circle until claimed by injury, exhaustion or predation.¹¹ Artificial light at night may depress the activity of night-time insect pollinators.¹² Impacts on insects and other animals vary with species, light intensity, spectral distribution, direction, flicker rate, time of day and structure of surrounding surfaces.^{13,14}

Excessive urban light can impact bird populations by decreasing insect populations; more dramatically, well-lit buildings disorient migrating birds and kill many through a combination of exhaustion and direct collisions.¹⁵ Low levels of urban light decrease the activity of urban mammals and effects may penetrate deeply into larger green spaces.¹⁶ The impact of urban light (and likely, urban sound) does not end with a natural area border delineated on a map.

While night-time lighting in the city can impact urban biodiversity, the effects can be minimized by, for example, using outdoor lighting appropriate to what animals perceive and are adapted to, developing “bird-friendly” building design requirements for multi-story buildings, and minimizing visible light from buildings during bird migration periods.

Urban sound

Urban sound is also ubiquitous but its temporal distribution is different than that of urban artificial light. Some urban sounds are annoying or even unhealthy for humans; however, intensities and frequencies of other sounds considered tolerable or even desirable by humans may impact the behaviour and survival of other urban animals without our being aware.

Urban noise, typically associated with traffic, machinery, and industrial processes, impacts animals that communicate through calls and

songs. Birds may be strongly affected. For example, urban noise may cause birds to change the frequencies, intensities, complexity, and timing of songs which, in turn, affect mating success¹⁷ and may affect the ability of resident and migratory birds to detect prey and predators. Similarly, traffic noise can impact the behaviour of insects, amphibians, reptiles, and mammals.¹⁸ Urban noise may also interfere with our use of acoustic techniques to quantify the abundance and diversity of sound-producing animals. Exposure to urban noise can be minimized by promoting or discouraging different modes of transportation, particularly in relation to biodiversity hotspots, and through appropriate use of vegetation or artificial barriers to scatter or reflect sound.

Humans do not detect sound waves in the infrasound or ultrasonic range, but many species found in cities (insects, rodents, and bats) sense, and in some instances,

communicate at ultrasonic wavelengths.¹⁹ It is unclear whether urban sources of either affect the behaviour of urban animals.

In a nutshell:

- Urban biodiversity is largely invisible to humans and remains difficult to quantify
- Enhancing urban biodiversity requires environments appropriate to the desired organisms.
- Humans and non-human biota vary in their environmental requirements and how they sense environment. What is suitable for humans may be detrimental to desirable urban biota. This should be recognized in municipal biodiversity and urban development initiatives.

Kevin Brown, MSc, PhD, PAg, CSE, is a self-employed consulting forest ecologist in Saanich BC and Certified Senior Ecologist through the Ecological Society of America.

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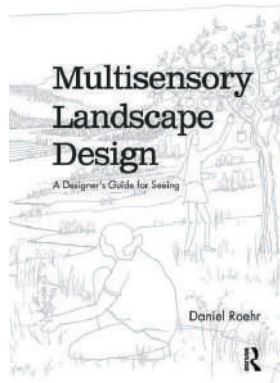


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Multisensory Landscape Design: A Designer's Guide for Seeing

(Routledge May 2022) by Daniel Roehr Associate Professor (SALA UBC) is an inspiring book for design students, instructors, or anyone who is interested in multisensory design. The book advocates multisensory literacy as “a renewed definition of seeing” in which designers should use all five senses (sight, touch, sound, smell, and taste) to interpret landscapes and not be limited to visually seeing. Throughout the book theories are explained clearly with expressive graphics followed by recommended reads. It demonstrates why and how to use the senses to understand the site, from observation to perception. The art of landscape is the diverse and dynamic experience that creates different physical and emotional connections between users and the space. To design an inclusive and intriguing sensual experience, it is essential that landscape designers place themselves into the space, feel it, then enhance it with empathy. For example, close your eyes and imagine how visually impaired people would feel about the environment. There are exercises and examples of students' work in chapter 4 where one will find uncommon yet interesting approaches for site analysis and creative design communication techniques using analog and digital media. This book offers a strong foundational resource for multisensory landscape design and an enhanced vision for design education.

Reviewed by Vicky Cen



A documentary film that explores the lives and livelihoods of unhoused extreme-sport enthusiasts in North Vancouver

An oldie but a goodie! Originally released in 2008, this documentary was recently shown at The Polygon Gallery's Deckchair Cinema evening in North Vancouver (hurray for public space programming!). Filmmaker Murray Siple follows a group of local unhoused men who have combined the work of bottle-collecting with the extreme sport of riding shopping carts down the insanely steep hills of North Vancouver. The film is funny, exhilarating and deeply generous, offering viewers a rare perspective into lives, livelihoods, and landscapes we too often ignore.

www.nfb.ca/film/carts_of_darkness



A podcast about women in the design and construction industry throughout history and today

An inspiring and unique podcast showcasing powerful and skilled women in the design, business, and construction industries. The show host, Stefanie Olson, a licensed general contractor, highlights and interviews women who rise to the challenges found in industries that are often male-dominated. These conversations are authentic and encouraging and shed light on the struggles and celebrations of these amazing women.

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Thank you!

The Sitelines Editorial Advisory Board extends our thanks to all our past writers, artists, illustrators, photographers and interview subjects who have contributed to the magazine.



Karen Lai (she/her), featured on a hike through Pacific Spirit Park, is a trained facilitator who leads honest and authentic conversations about inclusion. She was born in BC to parents who immigrated from China and Hong Kong, and identifies as having a disability since birth, Cerebral Palsy, a neurological disability affecting her speech, balance, coordination, dexterity, and mobility. Because of this, she currently uses a walker to navigate the world as her legs experience chronic pain as she moves. This allows her more support and gives her a chance to sit when she is tired or exhausted. Karen completed her Master of Arts in Human Kinetics with a thesis focusing on social inclusion; she found that inclusion is messy and complex. Each of us brings so many layers of identity into every space we occupy or into every conversation we have with one another — so how do we make space for everyone to be heard, valued, supported, and belonged? She encourages and facilitates organic conversations in order to shift perspectives and encourage curiosity about one another with learning outcomes that can in turn shift society and shed a light toward deepening our collective knowledge. Learn more about Karen and her work at inclusionaccessibility.com. Karen feels very grateful to be doing her work on the stolen lands of the xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish) and səliłəilwataʔɬ (Tseil-Waututh) Nations, which is central to the work of inclusion.

Photo by Alia Youssef, a Vancouver-based portrait and documentary photographer interested in complicating representations of marginalized groups and national narratives, as well as highlighting underrepresented stories and histories. Alia's photo of Karen was originally part of a Narwhal Magazine feature and can be viewed in full here: thenarwhal.ca/bipoc-outdoor-adventure

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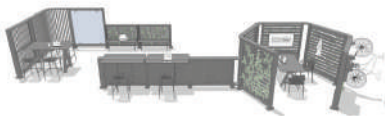
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