

SUSTAINABLE LANDSCAPES

CASE STUDY: BORDEN PARK

COLLECTION 4

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ARCHITECTURE 350: LANDSCAPE ARCHITECTURE THEORY AND PRACTICE



Figure 1: Building stencil upon grass surrounded by tree root. Photograph by author – April 15, 2019.

VIABLE LANDSCAPES: SUSTAINABILITY IN 2019

In architecture, "sustainability" is a term often used when referencing environmentally-aware design. "Sustainable design" often conjures images of greenery, natural materials such as wood and bamboo, and low or zero net energy buildings. However, sustainability also encompasses economic and social components of design, such as accessible financial resources and universal human, labor, and cultural rights (University of Alberta, 2019). The sustainability movement has origins in conservationism, internationalism, capitalism, and social justice which have contributed to the current "sustainable development" movement initiated at the end of the twentieth century (University of Alberta, 2019). In this paper, I will analyze the environmentally sustainable landscape of Borden Park in Edmonton, Alberta, Canada with focus on its natural swimming pool as an element of ecologically sustainable design. Borden Park's landscape can be analyzed using Simon Swaffield's theoretical themes outlined in *Theory of Landscape Architecture: A Reader* regarding landscape meaning and significance and how visual representation can transform the meaning of landscape (Swaffield, 2002). Borden Park is a 20-hectare greenspace located in the community of Virginia Park in Edmonton (L. Bowers, personal communication, March 3, 2019 & City of Edmonton, 2019). It was designed about 100 years ago and is filled with public art, paved walking paths, a flower garden, baseball diamonds, and picnic facilities (City of Edmonton, 2019). The new \$14.4 million natural swimming pool uses no chemicals to disinfect its water and replaced the original pool, built in the 1950s (Snowdon, 2018 & gh3, 2019). The water is treated through sand and granite filters, a nearby filtration pool, and uses algae and aquatic plants such as pond lilies and reed grass to maintain cleanliness and sanitation (Snowdown, 2018 & gh3, 2019). This paper serves to express how the key theories in this course have led me to my sustainable landscape narrative of Borden Park and assert my personal approach to holistic sustainability in my design practice.



Figure 2: Architect's scale ruler representing Swaffield's notion of perceptual measurement. Photograph by author – April 15, 2019.

The interrelationships between landscapes and their inhabitants are vital to a comprehensive understanding of landscape architecture. Swaffield's first landscape theory suggests that meaning and significance within landscape architecture are determined by potential relationships, such as with a bird species or tribal group of humans (Swaffield, 2002). This idea is reflected in the integration of Borden Park's natural swimming pool – a technologically advanced facility nestled in a residential city district. The public city facility made national and international headlines as being Canada's first natural swimming pool, establishing Edmonton as a leader in environmentally sustainable design (Snowdon, 2018). Local resident Val Brandenburg was quoted as saying that the new pool is a major upgrade from the mid-1950s pool that offered nothing more than "concrete and chlorine", stating that she wants to "keep this a secret in our own neighborhood", clearly expressing the newfound value of the community pool and the desire to keep it in an exclusive and private relationship with community members (Snowdon, 2018). Another resident stated that visiting the pool is like visiting the beach due to the sand and its natural designed ecosystem (Snowdon, 2018). The sustainability of the landscape is informed by the pool's use of stone and botanic filters as the first in Canada to treat public bathing water with natural processes, communicating a valuable relationship between the function of a recreational pool facility and nature.



Figure 3: The natural swimming pool at Borden Park. gh3, 2019.

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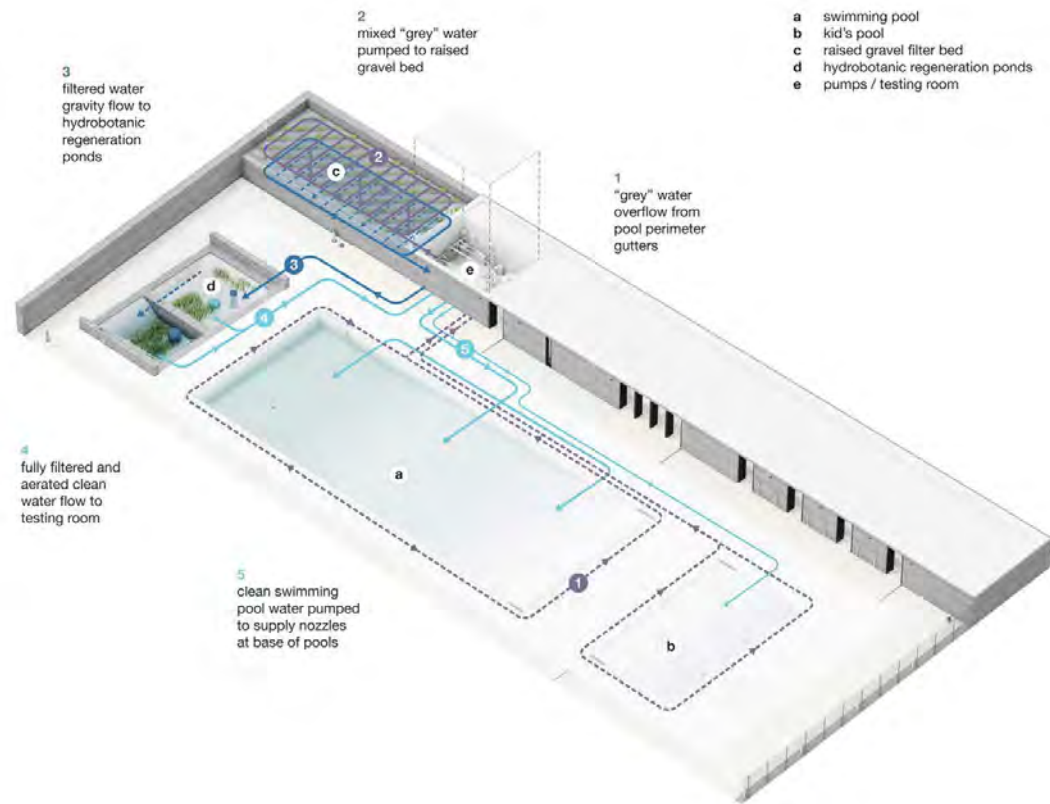


Figure 4: Water filtration and circulation diagram of the natural swimming pool at Borden Park. gh3, 2019.



Figures 5 & 6: Borden Park public art with opposing factual and fictional implications, questioning the phenomenological and experiential qualities of sustainable landscapes. Photographs by author – April 15, 2019.



Figure 7: Literal framing of the Borden Park landscape.
Photograph by author – April 15, 2019.

Perception and understanding of landscape can be manipulated and articulated through different media and experiential modalities. Swaffield asserts that the ways in which a landscape are represented in plan sketches, images, and text ultimately transform its meaning (Swaffield, 2002). While I was researching and studying for this project, I realized the cyclical nature of creating meaning through representation, as my different sources impacted my perception and understanding of the intention and reality of Borden Park's landscape, which would ultimately be overturned and represented in another fashion in this paper and through my videography and photography. The architecture firm that designed the natural swimming pool, gh3, communicates its technicalities through a labelled diagram highlighting the water circulation which transforms its meaning from a globally influential sustainable landscape to a complex technological system of tremendous ingenuity and multidisciplinary collaboration (gh3, 2019). Even the images shared by journalists, visitors, and gh3 vary in their representation of the same landscape due to personal preference, technical equipment, and the intended message, which ultimately influences the reader or viewer. This speaks to the responsibility of the landscape architect and other designers to collaboratively design and equally represent ecological and human-designed systems to inform and respond to landscape.



Figure 8: Borden Park public art sculpture reflected in puddle.
Photograph by author – April 15, 2019.

My understanding and approach to sustainable design have changed dramatically since beginning this course. Never again will I associate “sustainability” with just the environment or clichés of “green” architecture. In this course, I have been influenced most profoundly by the works of Ann Whiston Spirn, Ian McHarg, and John T. Lyle. Spirn highlights the language of landscape as the silent communication of nature, which influenced my choice not to narrate my video with words but complement the imagery with music to reflect how humanity and landscape should harmonize (Spirn, 1998). Ian McHarg’s “ecological method” of defining landscape through interactions between physical and biological processes acknowledges the complexity, diversity, and symbiosis in landscape architecture and the corresponding lifecycles of each (McHarg, 1967). To express McHarg’s theory, I placed a stencil of skyscrapers along a tree root with blades of grass sticking out from the laser-cut shapes to represent the imposition of construction on nature. I brought Lyle’s ideas for designing human ecosystems into my project by recording my experience moving throughout the landscape and circulating on designed pathways and natural ground to establish order and design for energy and material flow (Lyle, 1985). Lyle expresses scale as vital to designing human ecosystems because each ecosystem is a subsystem of a larger system with linkages between units of measurement, which I chose to literally represent in a photograph of a scale ruler resting against a tree trunk (Lyle, 1985). I used personal approach, lenses, patterns, colors, angles, and units of measurement in a literal manner in my video and photography to assert Swaffield’s theories, but architects must reach beyond literality when designing landscapes to establish sustainable landscapes, communicating the multiple meanings of “sustainability”. This assignment in itself exemplifies Swaffield’s assertions that representation of landscape alters its meaning (Swaffield, 2002).

I have adopted Borden Park and its natural swimming pool as my local precedent study, inspiration, and influence for sustainability in landscape architecture. Through text, videography, and photography, I have perceived and articulated my perception and understanding of Borden Park's landscape elements. Before presenting the visual components of this project, I manipulated their graphics in Adobe computer programs. My textual representation of my interpretation and understanding of the landscape was also manipulated in Microsoft Word; a process intentionally hidden from public view. This course of visual processing, interpretation, graphic manipulation, and representation reflects design methodology in landscape architecture. What this project does not account for is the critical evaluation of the unsustainable components of landscape, which must be analyzed before deeming a landscape "sustainable." I have asserted this view in my video presentation through its simplicity and text, calling the viewer to action to explore, try different approaches, look at the same path in different ways, or try a new path with the aforementioned ideas in mind. After studying landscape theory and realizing the tremendous responsibility of creating holistically sustainable landscapes, I value collaborative design through several new lenses.



Figure 9: A look back at the landscape reveals footprints, but they are not always temporary.
Photograph by author – April 15, 2019.

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