WILSON SCHOOL OF DESIGN KPU

Assembly

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Assembly

Assembly

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SRIG — **This icon appears on projects that have received Student Research Innovation Grants through KPU's Office of Research Services.**

WILSON SCHOOL OF DESIGN

KPU

We at Kwantlen Polytechnic University respectfully acknowledge that we live, work and study in a region that overlaps with the unceded traditional and ancestral First Nations territories of the xʷməθkʷəy̓əm (Musqueam), qí cə́ y̓ (Katzie), SEMYOME (Semiahmoo), sc̓ə́ waθən (Tsawwassen), qiqéyt (Qayqayt), and kwikwəƛ̓ə́ m (Kwikwetlem); and with the lands of the qw̓ɑ:nƛ̓ə́ n̓ (Kwantlen First Nation), which gifted its name to this university.

We are delighted to present *Assembly*, the inaugural research journal of the KPU Wilson School of Design. This curated collection of projects, critical essays, reflective musings, and photo essays brings together the varied perspectives of our design community here at Wilson. Research journals play a crucial role in capturing and distributing the intellectual work that often lives behind the scenes of design. *Assembly* is an opportunity to share not just what we make, but how and why we make it.

The Wilson School of Design offers programs that truly reflect the polytechnic nature of KPU: Foundations in Design, Fashion Marketing, Front-End Development for Interactive Applications, Fashion and Technology, Graphic Design for Marketing, Product Design, Interior Design, and Technical Apparel Design. Our diverse range of students is engaged with industry and community through work experience placements, collaborative projects, and applied research and development. In the 2024/25 World Brand Design Society's rankings, Wilson placed second in the Best Design Education Ranking and sixth in the Global Design Education Ranking, highlighting its place as one of the top institutions worldwide in design education.

Showcasing the research, creativity, and inquiry of both students and faculty, this first edition of *Assembly* invites readers to explore the many ways research lives within design: through hands-on practice, critical theory, and visual storytelling. It is a celebration of curiosity, process, and a tribute to the thoughtful, innovative work being done here at the Wilson School of Design. I wish to express my gratitude and congratulations to our faculty leads, Carley Hodgkinson and Erin Ashenhurst, for their vision and guidance, to research assistants Julianna Mayan and Sofia Piercey, and to all the Wilson members who brought this work to life.

Sincerely,

A Goundrey

Andhra Goundrey
Dean of the Wilson School of Design

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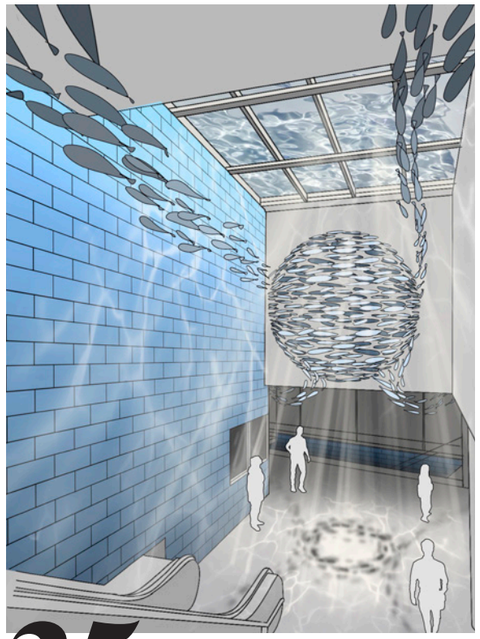

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ecologies

Technical Jacket for Wildlife Photographers

Sebastian Villa Munera

SRIG

Student, Technical Apparel Design

THIS PROJECT ADDRESSES a critical factor in the success of wildlife photographers: technical apparel designed specifically for their unique needs and challenges. These professionals play a vital role in spreading conservationist messages through pictures, often working in remote and demanding environments. For them, environmental protection and functionality are essential. The goal was to develop a garment that supports the functional needs of wildlife photographers and conservationists who rely on photography in their work. This included considerations such as functional storage, balanced weight distribution, quick access to camera gear, low-noise materials, reinforcement at high-stress points, and protection from the elements, helping photographers stay focused on capturing the wild.

An(other) Design Methodology: For islands, by insects

Sue Fairburn Wilson School of Design
Jennifer Cunningham The Design Museum, UK

Islands can be places of inspiration, isolation, and collaboration. Their communities are frequently portrayed as models of self-sufficiency, a belief rooted in their capacity to cope with remoteness and the logistics of land-water boundaries. However, these boundaries are not as rigid as maps suggest, and island knowledge and culture develop through lived experience across both ecological scales and time. Could the complexity of their edges—of existing on the periphery—be integral to the concept of care? Could the act of positioning ourselves on an island, in a literal or metaphorical sense, help us better understand care, relationships, and cohabitation? Positioning oneself in a remote locale presents an opportunity to reflect on the effects of location on our trust in and our understanding of care. In this frame, remote may be a time, an edge, a body, a climate, an island or a planet—all of which prompt us to consider social-ecological structures and relationality. In our work, we explore how to collectively map an island with all of its inhabitants to understand how to negotiate a careful place that supports a lively and unruly ecosystem.

1. THEORETICAL BACKGROUND ON ISLANDS

The world's islands are home to over 730 million people, or about 9% of the global population (Wikipedia, 2025). While islands like Shetland, Vancouver Island, and Vanuatu differ greatly, they share what Jonathan Pugh (2018) calls an "island ontology"—a worldview shaped by the unique conditions of island life. Pugh warns against reducing islands to mere laboratories for modern solutions, prompting the question: Can we view islands as spaces to think with, rather than test sites? Philosopher Edouard Glissant offers a solution to this question in his concept of "archipelago thinking" saying, "...the archipelago as a metaphor for a way of organising the world that facilitates cooperation between different organisms; a coexistence that is not based on power relations but that draws strength from its diversity" (Glissant and Obrist, 2021). This idea is reflected in the work of artist Laurie Brinklow (2013) who understands islands as "a mirror with an emphatic frame," emphasizing their role in reflecting the complexities of relationships. Through her research, Brinklow highlights how islands' geographic isolation and small size offer artists the freedom to experiment, often in politically or socially transformative ways. The island perspective is an ontology in itself that provides a way to consider coexistence without hierarchy and provides the freedom to work in socially transformative ways.

1.1 ON ISLANDS AND IMAGINATION

"An island perspective will differ depending on whether you are seeing the curves and folds from a hang glider, or if like an ant, you are crawling around the circumference of the coastline (Pugh 2018)."

In their paper on Climate Imaginaries, Yusoff and Gabrys (2011) propose that processes of "imagining and enacting future worlds encompass the metaphorical, ethical, material, and imaginative registers through which environmental understanding emerges." Imagination has an anticipatory capacity, described by Di Battista (2017) as a "condition, a frame of mind that prepares someone to do something." We are drawn to the idea that imagination is a way to prepare ourselves and our environment.

Imagination is based on knowledge and not on nothing. Melody Jue (2020) in her pivotal work in media studies established "conceptual displacement" as an experimental methodology that can help us develop different ways of speaking about a change, writing: "Only by physically or imaginatively displacing something (your body, a concept, an idea) underwater can you begin to explore the question of what changes (p 445 Melody Jue, Wild Blue Media). We understand imaginative displacement to enact future worlds and to think with complex, intertwined and co-dependent ecosystems (Fig. 1).

1.2 CARE + MORE-THAN-HUMAN WORLDS / RELATIONALITY

Joan Tronto and Berenice Fisher (1990) define care as "everything that we do to maintain, continue, and repair 'our world'... which includes our bodies, ourselves, and our environment, all of which we seek to interweave in a complex, life sustaining web." Interventions of care are functional, sited, tangible and ongoing, and they are part of a much bigger project (Fig. 2). Where speculative design tends towards provocations, dialogues of care enable design to be accessible and mobile through a humanitarian lens where locals take on an affective agency (Ward 2019). Following Haraway (2016), this 'nonarrogant collaboration' helps us to reveal how the world works and to explore 'dilemmas in' and 'possibilities of' care. By thinking through care, understanding that what the public expects informs the basis for care, we will try to think through fairer systems of living and thriving together.

Figure 1: Background theory collage (image credit, J. Cunningham, 2020).

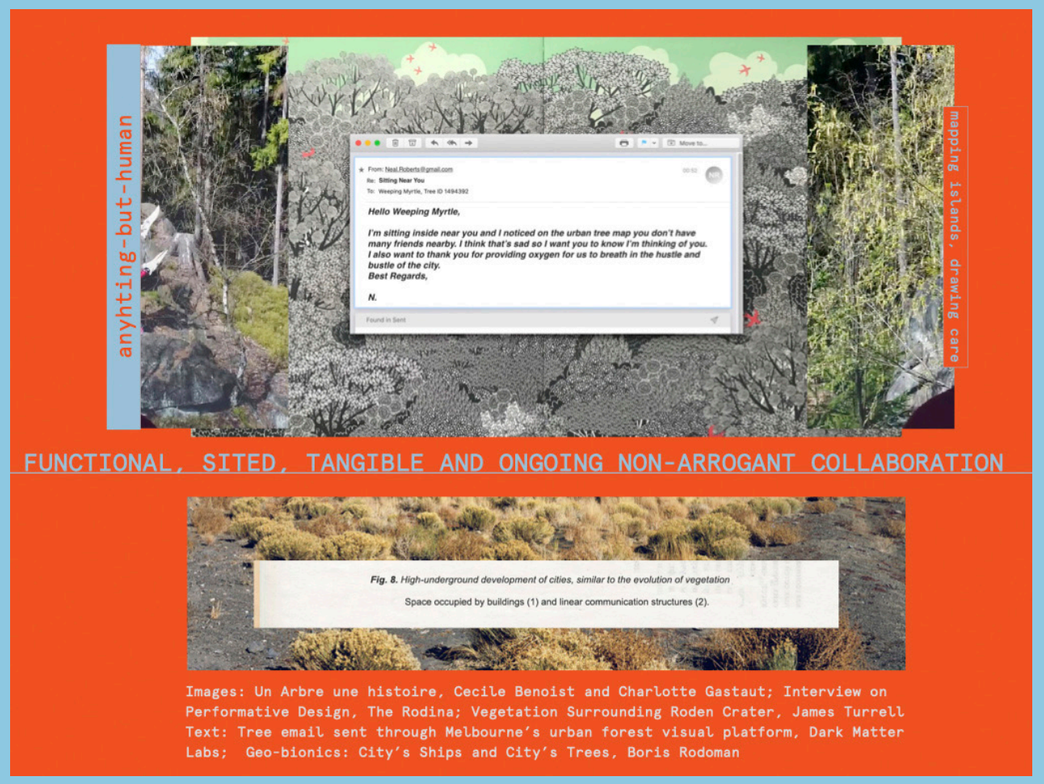

Figure 2: Background theory collage (image credit, J. Cunningham, 2020).

2. DEVELOPMENT OF THE METHODOLOGY: ROLE PLAY/ENVISIONING /MAPPING

Our research on imagination and world-building began with Manguel and Guadalupi's *The Dictionary of Imaginary Places* (1980), which features over 1,200 fictional places and 150 maps. These maps treat fiction as fact, told from the perspective of travellers and chroniclers. In design, maps convey relationships, processes, and stories through mark-making and annotations. In art, maps have been used to portray sites of human interference (Exhausted Geographies, 2024), inspire musical compositions (Lou Sheppard's *Requiems*, 2017–18) and become narratives (Francis Scott's *Eynhallow,* 2023). Through these approaches, maps reveal more than geography—they reflect creative, interpretative worlds.

To begin thinking in terms of islands, we selected a map from *The Dictionary of Imaginary Places* (1980) and wrote about the conditions there: "Fragrant Island, a product of Alfred Jarry's 20th century imagination, retreats upon intrusion. Protecting its biodiversity from unwelcome guests, like a finger prodding an anemone, its remote shore retracts and folds upon itself in worry. An intuitive location, with the knowledge to be wary of those that did not understand its landscape, the land provided its own system of care. With a defensive shore of madrepores, Jarry created a self-safeguarding island which resonates with historically untouched locations on our planet. Fragrant Island could be read as a foreshadowing of ideal interactions with our planet, where we would be told to turn around. The picture of a sensitive island is now an unfamiliar idea, beyond reversal and something of a fantasy" (Cunningham 2020). This exercise marked the beginning of developing our methodology. Visualizing, envisioning and imagining are creative tools and skills that can be cultivated. While, envisioning can be abstract and involves imagining a possible outcome, visualizing calls to mind specific details to create a clear image, like a map. Mapping fictional places helped us explore what we want from our world and how we wish to support each other and the ecosystems around us.

Fiction was the glue of our methodology, both in the imagined lands and the roles participants took on. We began by developing a series of roles people could inhabit, following writing by Elvia Wilk (2022), the methods used by London-based design studio Superflux and Deepa Iyer's (2018) 'ecosystem roles.' Wilk, in *Death by Landscape* (2022), describes scenarios and role-playing as methods for experience and collaboration. These design tools help test ideas, practice concepts, and develop skills. In their work, Superflux make extensive use of scenarios, narratives, role play and embodiment, supporting that these modes foster connections, reasoning, and decision-making. Where Iyer's (2018) proposition of 'ecosystem roles' outlines the different roles people normally assume in social change movements. This was a practical example including the qualities and approaches of positions and roles such as Weavers, Healers and Builders that led us to wonder who and how we would incorporate the position of different actors in our shared living world into the role-playing exercise. Combining the knowledge of Wilk, Superflux and Iyer, we came up with Cartographer (Geography), Insect Architect (Ecology), Community Engagement Officer (Administration), Ethnographer (People), and Writer ("Fictioner").

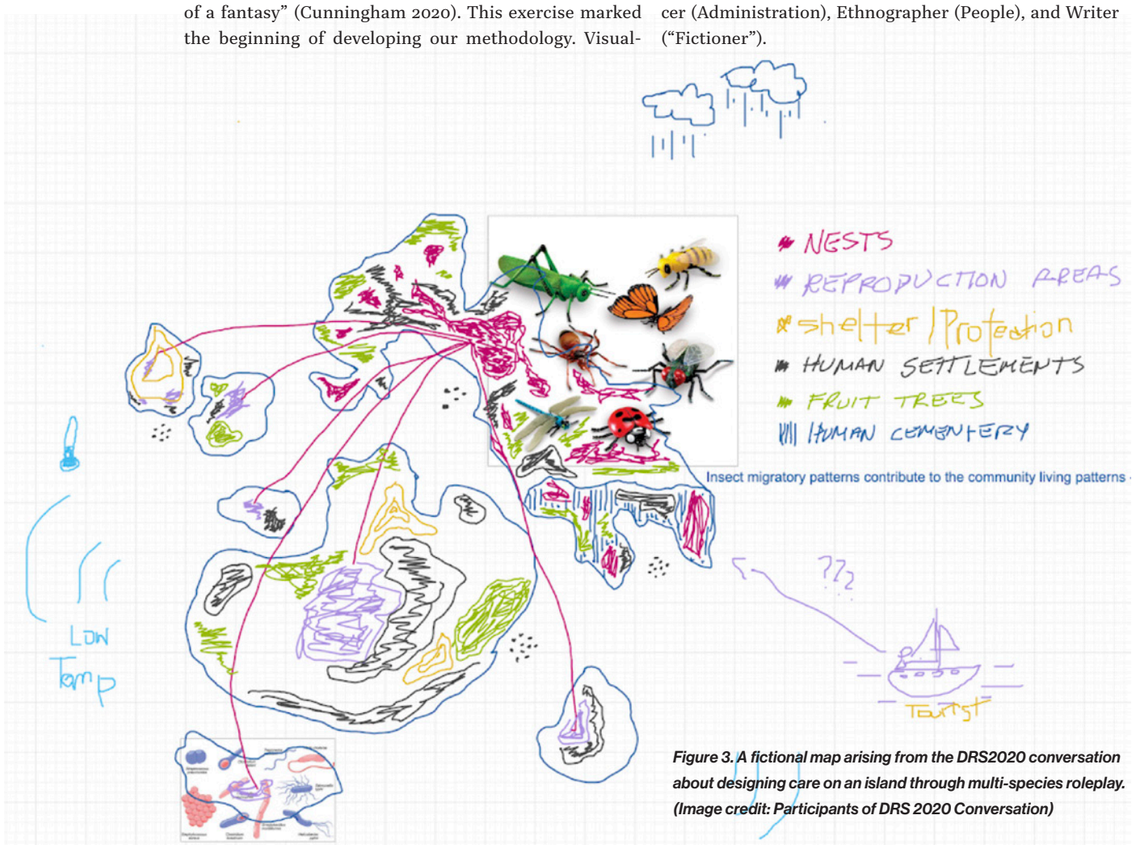

Figure 3. A fictional map arising from the DRS2020 conversation about designing care on an island through multi-species roleplay. (Image credit: Participants of DRS 2020 Conversation)

3. ON PILOTING THE METHODOLOGY: ON PROCESS AND OUTCOME

We piloted our methodologies twice: first at the Design Research Society (DRS2020) congress, originally scheduled for Australia in August 2020 but re-formatted as a remote event due to COVID-19. We adapted our workshop from an in-person, paper-based cartographic exercise to a digital format. The second pilot was part of the Uroboros Art and Design Festival's online event, *Designing in Troubling Times* (May 2021). Both sessions used the same scenarios, role play, and visioning-through-mapping methods. The following section outlines our process and outcomes through a series of questions.

What was our role at the start of the workshop?

As convenors, our role was to mediate the activity by providing guidance and parameters for thinking. We began by sharing theories of care and thought experiments. This was followed by a warm-up where participants were asked to draw and share thoughts on the first island that came to mind. From this point, the route of the conversation was affected by the collaboration framework shown in Fig. 2.

What discussions, activities and experiences took place?

Participants chose a role in relation to the systems of social and ecological governance they wish to embed in place. Roles offered were Cartographer (Geography), Insect Architect (Ecology), Community Engagement Officer (Administration), Ethnographer (People), Writer ("Fictioner"). The cartographer was a fundamental role, where other positions were more flexible. With roles assumed, we then provided a few scenario cards (Island Test Sites of Care) that we had prepared for the workshop. The group was asked to select which island they would like to inhabit together and then familiarised themselves with the island through the starting parameters (e.g. DRS2020 participants chose Island 19, an archipelago with a population of 21,500 described as *"adaptable, wild, unfamiliar and uncomfortable").*

What was our role as the workshop evolved?

As facilitators, we remained available, chiming in when it seemed like the group needed something to provoke their thinking, although the conversation flowed quite freely as the island took shape. Reflecting on our aims, we posed questions such as: *1. How do the qualities of the other islands shape the care of the north islands (where they settled)? 2. Where might the humans live, and are they affected by the other creatures inhabiting the islands? 3. Are there visitors from elsewhere, i.e. is there trade, tourism, or is the island wholly self-sufficient? We concluded by asking participants: How are you perceiving care?*

What outcomes/insights emerged?

The workshop outcomes included co-created maps and accompanying conversations, which explored care in a fictional island setting, considering geography, ecology, death, design, and social structure. Transcripts were collected during the workshops, with a YouTube recording of Uroboros 2021 available for review and transcription. However, DRS2020 was not recorded, so notes were only captured by the convenors. The excerpts provide a sense of the dialogue that emerged from role-playing: ... *they* [the humans] *can't live there because of the wild insects—maybe part of the local governance includes the protection of the insects... it is cold and unpleasant but cave structures give shelter....floating things would be the places that they* [humans] *live as sometimes it is easier for them to create their living conditions on water than settling into difficult environments on the land...very tough winds...give shelter for humans but don't disrupt the insect habitats.*

OUTCOMES/// REFLECTIONS /// INSIGHTS

Post-workshop, we reflected on what was observed, overheard, and what emerged through the co-created map (Fig.3). Below are the key insights, highlights and surprising elements:

- **During the warm-up, one participant chose not to reveal themself (camera off) but instead described their island—an example of 'spoken cartography' that was surprisingly engaging.**
- **One participant shifted from a 'person-perspective' to an 'insect-perspective,' thus the map emerged from an on-the-ground lived stance, yet with a flying insect perspective.**
- **Visual details were described by multiple participants, but drawn on the map by one—which was an emotive process to watch; it was like multiple heads and one set of hands.**
- **The loose image of the island cluster on Island 19 directly contributed to the form of the visualised island cluster imagined by participants and the shapes of care the group discussed.**
- **Use of cartographic mark-making worked well, not only for the distribution of services and needs, but also for the coding (legend) aspect.**
- **Weather affected the island's inhabitants in different ways—with insects clarifying that humans need protection.**
- **The group didn't speak as *'what could be'* they described it *'as it was,'* they were inhabitants chronicling their locale, as opposed to onlookers/dreamers.**
- **The map served as an informant, as it provoked questions about proximity and relationship to surroundings *(e.g. What else was happening nearby? Whom else may be nearby?)***

During the workshops, we observed how the map evolved as participants' interpretations of care shaped the form, features, and vitality of the fictional islands. After each session, we reflected on the insights that emerged and how they aligned with our initial intentions. This research essay has offered an opportunity to revisit the role-playing methodology and the process of collective mapping for world-building, all within the context of our background research on care.

4. DISCUSSION ON A DESIGN METHODOLOGY, FOR ISLANDS, BY INSECTS

We sought to explore: *How socio-ecological structures might impose and foster an understanding of care?* We took great joy in witnessing the growth of a shared vision of care through an experience where participants were conceptually displaced (Jue 2020) by an imaginary/fictional island. This required participants to quickly learn the island context; the setting, the conditions, to envision the socio-geography, including the land mass, the coastal features, the weather patterns, and the ecosystem.

In the five years since we developed and delivered these workshops, there has been growing awareness and attention to the deep damage of colonialism and the essential task of decolonising design (Tunstall, 2023), which includes the map as a colonial technology. This requires more space than we can dedicate to it here, but like Exhausted Geographies (2023), if we pursue map making work again, we will offer a counter-mapping exercise to consider what a place is (obscured, censored, repressed) and what it could be (visible, witnessed, relatable).

These workshops, held during the COVID-19 pandemic, influenced the tools and formats for collaboration, potentially shaping discussions on care and community. Acknowledging that context, we focus on the following insights as notable to discuss: the shape of the island, the use of oral mapping, on role-play and the shift from a human to an insect-perspective, and how sticking-points informed a collective narrative of care.

We observed how the profile of the islands in the information cards was seen to inform the shape of the island drawn by participants. While this may seem to have inhibited imagination, we found it to be effective to help them focus less on the high-level landmass, as they were observed to quickly zoom-in on the island-edges and draw detailed interactions as specific sites around the edges, or to create additional islands, creating an 'archipelago of care.' This is consistent with Pugh and colleagues (2018), who emphasize the complex, fractal nature of island edges as crucial elements of island-ontology.

Initially, roles were designed to cover various disciplinary perspectives, but participants quickly dismantled this siloed approach. They offered first-person, embodied perspectives on care, making role-playing more prominent than we expected. Wilk (2022) writes on empathy, roleplay and the relational aspects and suggests that role-playing can balance power dynamics and shift perspectives. We observed that by adopting different roles, participants re-envisioned the island's form and features, shifting from land-based to other-than-ecological decision-making.

In the exercise, participants voiced the needs of the island's inhabitants, often through non-human perspectives. For instance, insects noted that humans needed shelter from the weather, indicating a multi-species entanglement (Haraway, 2016). Sticking points, such as weather, which can challenge our imagination, were reframed by asking *'who does it benefit, who else might benefit?'* In these moments, it was seen to grow care by drawing attention to different sites and enabling equalities in care. The experience shifted our understanding of how to engage people, collectively, in designing care, as the entanglements arising from a multi-species perspective were incredibly central to the outcome.

While our initial objective was creative research, the experience has left us considering the multi-species role-play aspect of the work. As a methodology, we see potential for its use in design education, as educators seek to engage students in imagining a care-filled world, encouraging improvisation and imagination. We encourage educators to let go of control as facilitator/architect of care so that roles adopted by participants enable improvisation and imagination. The shift to a remote, digital format allowed us to test the method with a distributed group from various locales, cultures, and time zones, opening possibilities for Collaborative Online Learning (COIL). This approach could also be expanded into a platform or project, or adapted as an interactive exhibition design, where perhaps the question posed could be: *How might this be applied at a planetary scale? Or how might it support community engagement if one defined community boundaries as 'islandish'?*

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Figure 4. Fictional island prompts

Human Factors Evaluation of an iSUP Pump

Johanna Jucutan Student, Product Design

Stand-up paddleboarding (SUP) has grown rapidly in popularity, offering participants an accessible and versatile water sport (Outdoor Foundation, 2019a).

A key part of the sport's appeal is the use of inflatable stand-up paddleboards (iSUPs), which provide the convenience of portability and easy storage compared to traditional hard boards (Aqua Bound, 2017).

This paper presents a human factors analysis of the design and usability of iSUP pumps, focusing on their effectiveness across different design criteria. Factors such as physical effort, stability during operation, and environmental challenges like wind, or uneven surfaces can impact the ease of use and overall user satisfaction.

Following this evaluation, this paper will assess whether the basic pump typically included in most recreational inflatable paddleboard kits meets users' needs and explore possible improvements.

BACKGROUND AND LITERARY REVIEW

According to Tsai et al. (2020), "SUP has become the world's fastest-growing water leisure activity," with participants engaging in it for outdoor recreation, fitness, and sightseeing. The sport is widely recognized as an effective full-body workout, with many sources highlighting the long-term benefits, such as improved muscle strength, associated with regular participation.

These paddleboarders primarily use single-action pumps included with their paddleboard kit, which inflates the board on the downward stroke, making them simple to use but slower to fully inflate the board. In contrast, double-action pumps inflate on both the upward and downward strokes, offering faster inflation but requiring more physical effort, particularly as the board reaches higher pressure. For those who more frequently use iSUPs or prefer the ease may also use electric paddleboard pumps of varying automation (*Paddleboard pumps the ultimate guide to choosing and using them*, 2024).

Throughout this paper, I will focus on iSUP users in the context of the Pacific Northwest, where paddleboarding is particularly popular during the warmer summer months. Paddleboarding is a low-barrier activity, attracting recreational users who engage in the sport infrequently to somewhat frequently. These recreational paddlers often opt for the standard, manual pumps that come with their iSUP kits until they break rather than investing in more expensive electric or battery-powered pumps. My analysis will concentrate on this demographic—those who use their boards only a handful of times throughout the summer and rely on the basic pump provided with their purchase.

While the activity of paddleboarding itself is enjoyable, the inflation process can be physically demanding and is influenced by the environmental conditions where the pump is used, the ergonomics of the pump design, and the body posture required to operate the pump efficiently.

These users are typically looking for a balance between ease of use and performance, and their first interaction with the board often involves setting it up with an iSUP pump in outdoor locations that can pose significant challenges. In a lake or coastal setting, recreational boaters can move freely across the water while also having access to the entire shoreline. This allows them to reach areas that are otherwise difficult to access by foot or vehicle (Baker et al., 2021). For example, inflating an iSUP on soft sand at a beach can lead to the pump sinking or sand getting into the pump shaft as it extends. On uneven or rocky terrain, stabilizing the pump becomes more difficult, leading the user to get into bad stance or posture in order to operate the pump.

These standard kit pumps often lack features that make inflation quick, comfortable, and suitable for diverse users and environments. Key issues include physical effort, user posture, stability on uneven surfaces, and ease of use across different terrains and outdoor conditions. The problem to be solved is how to improve the design of basic iSUP pumps to address these challenges, ensuring a better user experience for recreational paddleboarders with varying physical abilities who paddle a few times per summer.

The rapid growth of stand-up paddleboarding has sparked interest in the ergonomics and usability of iSUP equipment. Tsai et al. (2020) conducted a study on muscle activation during paddleboarding, highlighting the importance of core and lower body strength in maintaining balance and control during the activity. This research is relevant to the inflation process as well, where improper posture or excessive physical exertion could lead to discomfort or injury before paddling even begins. Tsai et al. (2020) emphasize that "activities like SUP" require full-body engagement, yet the act of inflating a board using a pump tends to isolate certain muscle groups, leading to potential muscle strain, particularly in the arms and shoulders.

The ergonomics of pump design have not been extensively studied, but related research on manual tool usage suggests that handle design and positioning are critical to reducing strain (Popp et al. 2016). Studies on manual tools emphasize the need for ergonomically shaped handles that conform to the natural grip of the user's hand (Harih, Dolsakm 2013). For instance, handles that are cylindrical or elliptical in shape with appropriate diameter allow for a firm grip without causing excessive tension in the wrist or forearm muscles (Popp et al. 2016). Similarly, grip design should "consider the hand action when holding the grip" (Wang, Cai, 2017) and should be sufficient to accommodate users with varying hand sizes comfortably, as improper sizing could lead to grip fatigue.

Positioning is also a key factor in the efficient use of paddleboard pumps. Current practice often sees users crouching or bending forward in awkward postures to apply downward pressure on the pump handle. The ideal position for operating such a pump involves the user standing upright and using their body weight to push down (*Pushing and Pulling*, retrieved 2024). This allows for better distribution of force and reduces strain on the lower back and shoulders. Additionally, the skinny design of the base of the pumps and foot placement on uneven or soft surfaces can exacerbate this issue, making it harder for users to maintain balance and apply consistent pressure to the pump. Another important factor in the ergonomics of iSUP pump use is the length of the pump shaft and the height of the user. Pumps with short shafts require users to bend further over the pump to operate it, which can cause lower back strain, especially when pumping a board to higher pressures.

DESIGN CRITERIA

When designing a paddleboard pump, several key design criteria should be considered to ensure that the pump is both effective and user-friendly. These criteria aim to enhance the usability, ergonomics, efficiency, and durability of the pump while accommodating a variety of environments and user needs. Below are the main design criteria for a paddleboard pump:

01 ERGONOMICS OF THE HANDLE

- The handle should be designed with elliptical or cylindrical shapes that fit comfortably in the user's hands to prevent fatigue and strain during extended use.
- Handles should be wide enough to accommodate grip distance to allow users to apply force evenly across the hand.

02 PUMP HEIGHT AND SHAFT LENGTH

- The pump should be tall enough to allow users to maintain an upright posture while inflating the paddleboard, reducing strain on the lower back and shoulders.
- Shaft length should accommodate users of different heights, allowing them to pump without hunching over or straining to reach the handle.

03 PHYSICAL EFFORT AND EFFICIENCY

- The pump should minimize the physical effort required for inflation, especially for users who may be inflating boards to higher pressures (e.g., 15 PSI or more).

04 PORTABILITY AND WEIGHT

- Since portability is one of the primary benefits of an iSUP, the pump should be lightweight and compact, making it easy to carry along with the board.

05 DURABILITY AND MATERIAL

- The pump and hose should be constructed from durable materials that can withstand regular use in harsh outdoor environments.
- Corrosion-resistant materials should be considered for parts exposed to saltwater or humidity, ensuring the pump remains functional over time.

06 USER FEEDBACK INTEGRATION

- Pumps should have clear, easy-to-read pressure gauges to help users monitor the inflation process and ensure the board reaches the recommended PSI.

07 EASE OF MAINTENANCE

- The pump should be easy to disassemble and clean, especially in environments where sand or dirt could clog the mechanism.

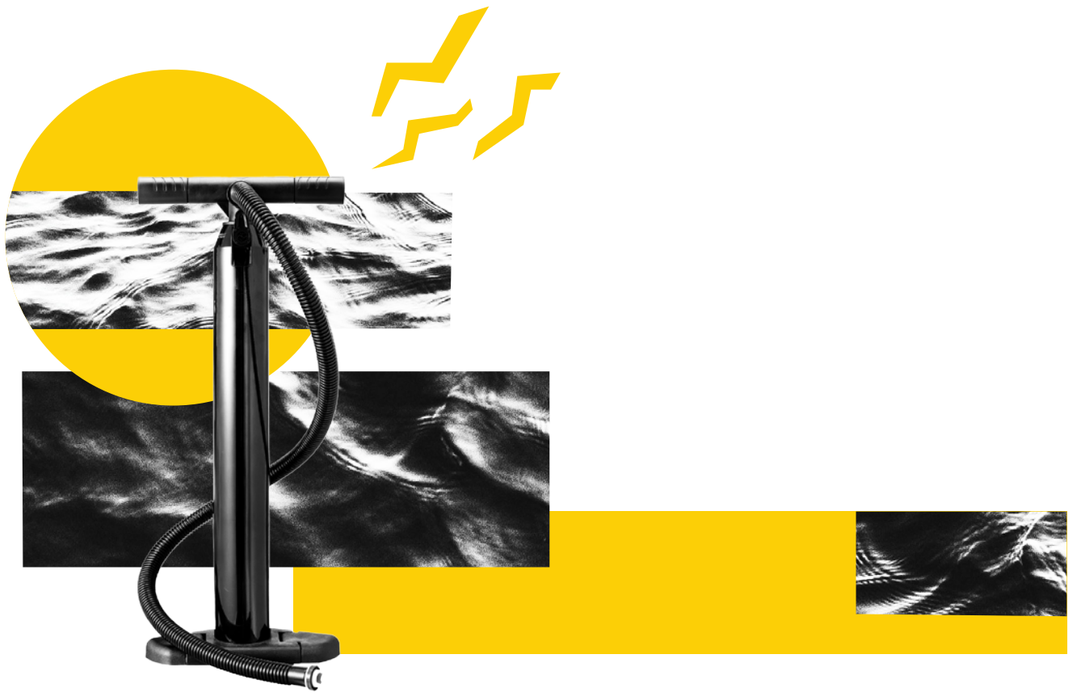
08 FOOT PLACEMENT AND STABILITY

- The pump should include foot braces or designated areas for foot placement to improve stability, particularly on uneven or soft ground. The width of the pump's base plays a crucial role in maintaining stability during inflation, especially when used on uneven or soft surfaces.

DESIGN CRITIQUE

Criteria	*Current Design*	*Critique/Results*
ERGONOMICS OF THE HANDLE	The handle is T-shape, with shaping to direct the hand in an outward position and is typically a plain, cylindrical design.	Currently for most it does not cause hand fatigue, but for some who have a wider grip and hold the edges of the handle, causes a point of pressure. Handle should potentially point knuckles downwards for less flexion in wrists.
PUMP HEIGHT AND SHAFT LENGTH	The pump is too short for many users, forcing them to bend over and causing back strain during inflation.	The pump shaft should be taller to accommodate for people's heights. The current design leads to poor posture, resulting in discomfort and potential injury.
PHYSICAL EFFORT AND EFFICIENCY	The single-action pump inflates the board on the downward stroke only but is relatively easy to push up and down.	Process is slow, and while the pumping is easy, there is not a lot of feedback given to the user that they are doing the action correctly. Gets fatiguing after a long time.
PORTABILITY AND WEIGHT	The pump is lightweight and fairly compact, hose detaches making it easier to store.	Some people did not detach the hose after use, and pump was lightweight, but would fall over during the action of pumping.
DURABILITY AND MATERIAL	The pump is made from cheap plastic that is prone to breaking, particularly the hose.	The hose often pinches during packing, leading to damage. Longterm users tend to need to replace this first.

Criteria	*Current Design*	*Critique/Results*
USER FEEDBACK INTEGRATION	Plastic pressure gauge to show PSI.	Users would not look at the PSI as there is no movement in the gauge to start, until almost halfway to completing task. Users with doubt, and went off the feeling of effort exerted, not visual PSI gauge.
EASE OF MAINTENANCE	The pump is 2 pieces, the pump and the hose.	Within the pump shaft there is room for sand to get in, causing wear and tear inside where you cannot access—leading to product damage.
FOOT PLACEMENT AND STABILITY	The base is skinny and a cm tall.	The current base design makes it difficult for users to stabilize the pump on soft or rocky surfaces. The height of the base also put the user's foot in an uncomfortable position, with a lot of ankle flexion.



CONCLUSION AND RECOMMENDATIONS

The current design of basic single-action paddleboard pumps, while functional, leaves much room for improvement in terms of ergonomics, efficiency, and user experience. The analysis highlights several key areas where the pump design falls short, specifically regarding body positioning, durability of the pump, and feedback on task completion.

The human factors analysis of iSUP pumps reveals several areas for improvement in terms of ergonomics and usability. A taller pump could reduce the physical strain on users so that they do not need to bend down unnecessarily. Additionally, incorporating a larger/wider foot brace or stabilizing base into the pump design could help users maintain balance and ensure consistent pressure application, even on soft or rocky terrain. Incorporating dual-action pump mechanisms that allow users to switch between single and double-action modes could improve both efficiency and reduce the effort required to inflate the board. User feedback could also be integrated better with a more visible or digital pressure gauge. However, all things considered, this may reduce the portability of a basic kit item.

By considering these factors and drawing on related literature in ergonomics and human factors, iSUP pumps can be redesigned to improve usability, reduce physical strain, and ensure efficient inflation even for beginner paddleboarders.

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From the Soil

Xinrui Ju Student, Interior Design

Interior design and architecture, as extraction-heavy fields, wield substantial influence over ecological footprints by choosing what materials we use. Yet, we have no personal connections to the materials as they are extracted from their raw form, processed, and put into our homes, without us ever considering their origins.

As we begin to question the origins of our food and the sources of our clothing, it's rare to pause and wonder about the concrete beneath our feet. Where did it come from? More likely than not, it came from somewhere on Indigenous land—perhaps a hill with its own name and story, maybe even a place that someone once called home and still misses.

I first questioned, "Where did the concrete come from?" when I was a child. It was because of the hills I miss, which slowly disappeared. Near my grandparents' home in Northern China, the once untouched hills, my favorite place to explore, were gradually carved away by mining companies for concrete. Growing up in an urbanizing city, I began to see their essence in the high-rises and roads shaping China's fast-developing cities.

As someone pursuing interior design, responsible for selecting and transforming the earth's "gifts" into materials for homes, infrastructure, and cities, I wonder: When we take from the earth, what is lost in the process, and who bears the consequences? How do we make people care?

I had the opportunity to research material extraction for my 3rd-year project—a climate change exhibition for Science World. I had learnt that design goes beyond presenting sustainable alternatives; it challenges the unchecked growth of cities that ignores environmental costs. We can design homes, but also educational exhibitions, sustainable infrastructure, and spaces like SkyTrain stations and hospitals. As designers, we should take initiative to educate people about climate change and the "gifts" the Earth provides.

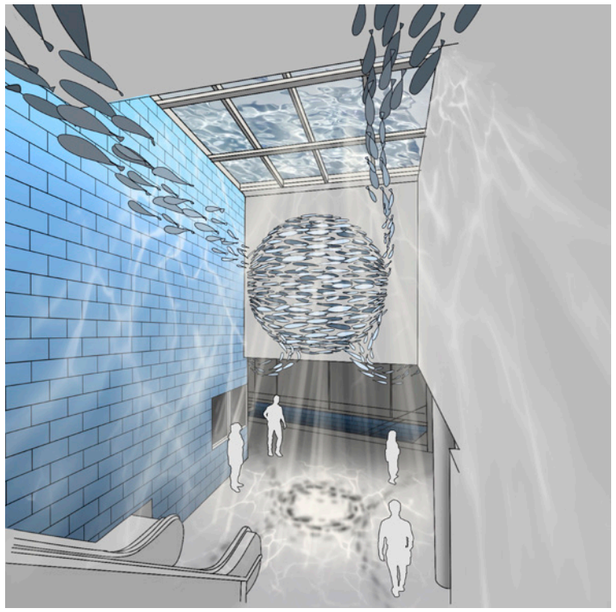
I was lucky to have lived and experienced the rural land, ran barefooted on the soil and can truly appreciate the beauty of the rustic, untouched dirt paths and humble homes. The climate crisis on Earth from urbanization affects me on a personal level. If we continue designing without acknowledging the land that sustains us, we risk creating spaces that are cold and lack meaning. By designing with mindfulness and respect for the "gifts" the Earth offers, people will not only appreciate the spaces they inhabit but also develop a deeper connection to them. Homes, workplaces, and public spaces can become places of meaning, where people feel grounded and connected to the earth, fostering a sense of respect, comfort, and care in the environments they experience every day. Connecting people to the soil, which is the foundation of our lives, from nourishing plants to nesting our homes and preserving our memories across time.

The Deep Dive

Olympic Village station remodel

Mia Givon Student, Interior Design

INSPIRED BY THE BROADWAY extension of the Millennium Line, I developed a design enhancing the Olympic Village Station on the Canada Line by establishing a sense of identity that reflects its surroundings and highlights the area's commitment to sustainable urban development. The redesign creates an immersive underwater experience, mirroring the train's journey beneath False Creek. As passengers descend to the platform, they'll feel as if they're diving underwater alongside a gradient of blue ceramic tiles and aquatic-themed art by local artists. A rippled acrylic skylight refracts sunbeams, imitating sunlight filtering through water. Fish installations and salmon-pink accessibility signage serve as wayfinding elements. This design reflects the ecological transformation of False Creek with the creation of Habitat Island and the implementation of sustainable urban development practices that have revitalized the area's marine biodiversity.



Perspective from street level, looking towards concourse

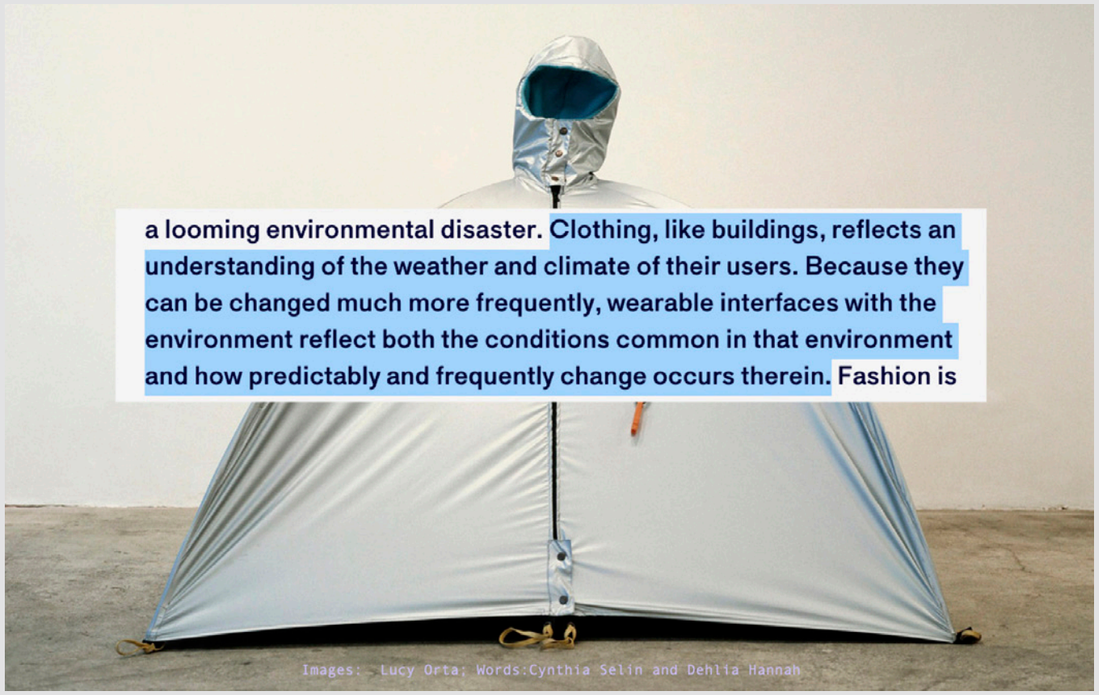
Collaging our Climate

Wearable design transforms climate data into lived, shared, and caring experiences

Jennifer Cunningham The Design Museum, UK
Sue Fairburn Wilson School of Design

BACKGROUND

Unseasonal Fashion: A Manifesto (Hannah and Selin, 2016) led us to ask how these wearable layers could become a method of sharing the experience of climate change—could what we wear communicate?



In her outline and notes for 'The Parable of the Sower' (Durkin 2017), Octavia Butler predicted our current climate reality over three decades before it happened. The story, published in 1993, is set in present-day California. For decades, climate scientists have been speaking out about the repercussions of planetary warming and in January of 2025 we watched in horror as wildfires ravaged Los Angeles mirroring the conditions that Butler had written in the margins of an idea from 1989: "more heat & dust & thirst & stench & misery & fire."

Fact and fiction became reality.

Although preceding the term, Butler's work is an example of speculative fabulation (Haraway 2016), a "mode of attention, a theory of history, and a practice of worlding", that was able to forecast the current state of climate collapse and in doing so aligned with the 'science fact' of climate scientists. Knowing the conditions of the far future hasn't always led to preparation for those realities. The aftermath of the fires in Pasadena led to countless GoFundMe pages for people who lost everything, and yet, what became clear was how support was best found in community. Teenagers arranged free stores for their peers to shop in, designers made open-sourced air quality monitors, and citizens rallied to provide clean water and food for their neighbours. Community suddenly appeared, and in doing so, shifted a hope that had been expressed into a reality. A climate disaster gave citizens the "capacity to imagine that something else is possible in the present" (Beier 2017). Our work, a slow project which began in 2017, has been trying out different ways to connect citizens to one another via weather conditions as a way to prepare, to care, and to connect with one another. In 2018 and 2019 we authored two papers together, the first, titled Climate Anticipation Personal Environment (Fairburn et al 2018) outlined our proposal for garments that could anticipate climate change, and the second *Climate Anticipation: Working towards a design proposal for urban resilience and care* (Cunningham and Fairburn 2019) looked at what this proposal could mean in-situ, when focused on care in community.

When we first presented this work, we understood weather as our experience of atmospheric events that show up in our everyday as rainstorms, thunder and lightning shows, as a spreading wildfire, a light breeze through an open window and hot sunrays beating down on the pavement. Whereas climate has a durational aspect, it is the sum of weather over a certain period of time. Climate is a lived abstraction made fantastical due to increases in extreme weather events around the globe, impacted by our warming planet, and made sublime through media. In order to think about climate without such abstraction, we have been working with weather, understanding it as a localised experience of climate. Thinking of weather allows the nuances of location to influence how we think of our changing climate and aligns with what anthropologist Anna Tsing (2012, 2025) calls the 'art of noticing': a sensory practice that encourages us to see and feel what is happening and revealed in the present.

Sensing environments can connect the individual with their community. If, as Yasaman Sheri (2019) writes, "empathy is an extension of sensing and understanding", then our work proposes fibres as the starting point of this extension. Just as environmental information is exchanged in the cloud, as a data conversation via satellites, we began to question how that could be done at a much more intimate scale on the ground—between material, people and their surroundings. Following the work of Delhia Hannah and Cynthia Selin on anticipatory aesthetics (2016, 2018), we began to look more closely at how "contemporary fashion is a sensitive indicator and rich site for the critical exposition of our increasingly turbulent seasons." *Could garments notice, sense and share information about the weather that would help other wearers? And how might that layer between us and the environment not only consider our own wellbeing but serve as an interface that allows citizens to understand their body in relation to others?*

As design researchers and educators, our work on building climate resilience through wearables is unfinished. Our prior research questioned sensing our world through our wardrobe, the exchange of environmental information in real time and how to build climate resilience with care-first design methods. What follows is the documentation of a workshop we hosted in the summer of 2020 during an annual festival for artistic and design research inquiries into more-than-human ecologies and relations. Our workshop, 'Collaging Climate Wearables', was a series of exercises in making, collaging and assembling an understanding of local weather conditions onto the body. Participants undertook individual and collective tasks that cumulatively looked at how they sensed the world and what they would integrate into their wardrobe to protect, care, anticipate and communicate climate realities with one another. By undertaking this work, we are making a commitment to atmospheric consciousness, and we invite others to make that commitment as well.

Try to imagine two strangers passing on the street, in a park, in a store — the fibres of what you are wearing seek out others despite the need to remain physically distant. Consider the connection of fibres, of people, of garments. Only active in public, the materials reach and grip, exchanging data through fleeting proximity. Once passive passersby share a tangible exchange of information, leading to awareness, and offering care. The communication parallels the level of intentionality on a spaceship. Just as information is exchanged in the cloud, as a conversation between satellites, climate anticipating garments enable it at a much more intimate scale on the ground — between material, people and their surroundings.

Images: Anouk Beckers, A Garment to Unravel; Grga Basic & Francesca Berardi, We Can, C4SR

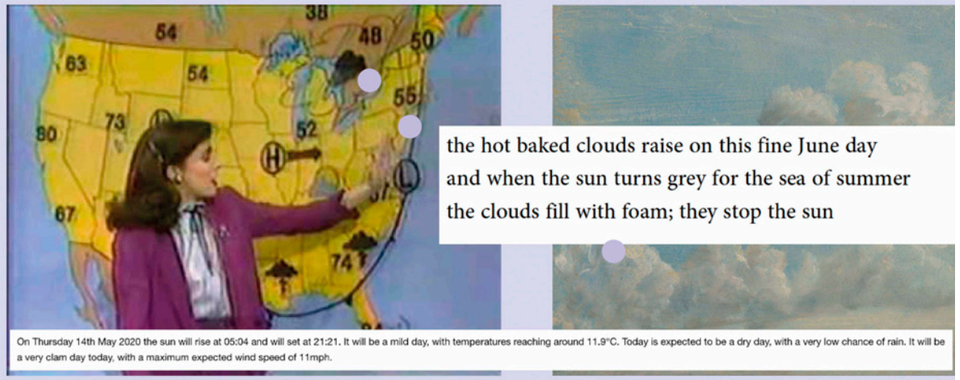
NARRATIVE PIECE (TOP)

We wrote this work of fiction to imagine how garments could communicate citizen to citizen, alerting and protecting people from looming environmental conditions. We used this as a starting point when developing the Collaging Climate Wearables workshop.

WORKSHOP POSITIONING (BOTTOM)

We developed a number of collages when imagining what possible climate-anticipating wearables could be, thinking of them as a way of expressing, monitoring and sense-making climate with society. This led us to develop a series of five creative prompts grounded in collaging, which structured the 'Collaging Climate Wearables' workshops.

-prompt 1-
COLLECTIVE CLIMATE REPORTS

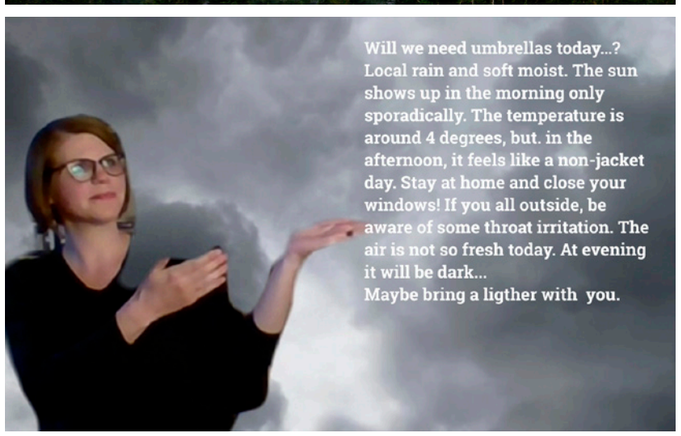


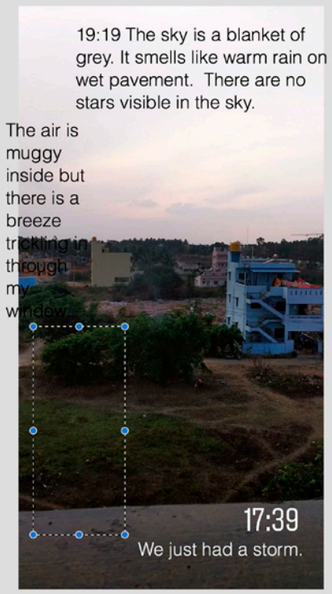
the hot baked clouds raise on this fine June day
and when the sun turns grey for the sea of summer
the clouds fill with foam; they stop the sun

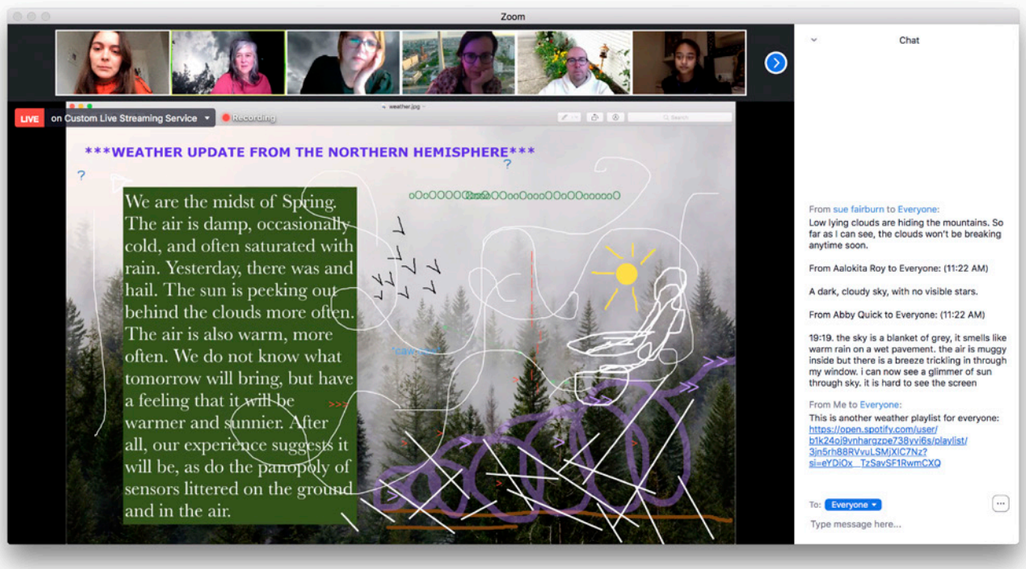
Poem: Charlotte Geater, snack room; Painting: John Constable, Clouds

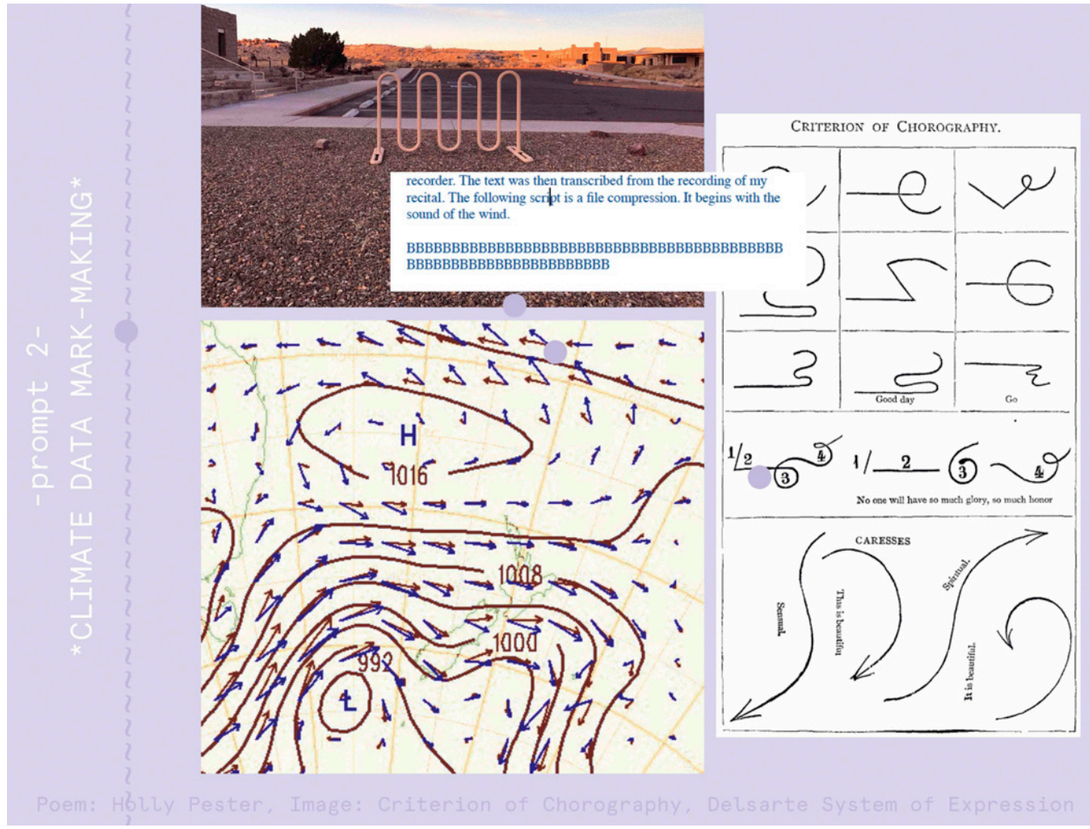
Prompt 1
COLLECTIVE CLIMATE REPORTS

Participants presented local weather reports in their own style. With a view out of their window, participants from India, Canada, Sweden, Poland, Scotland, Germany and Spain began by sharing their nuanced experiences of weather from where they were sitting.








-prompt 2-
CLIMATE DATA MARK-MAKING
recorder. The text was then transcribed from the recording of my recital. The following script is a file compression. It begins with the sound of the wind.
BBBB

-prompt 3-
OBJECT-BODY-WEATHER ASSOCIATION

PROTECTION, CARE, ANTICIPATION,

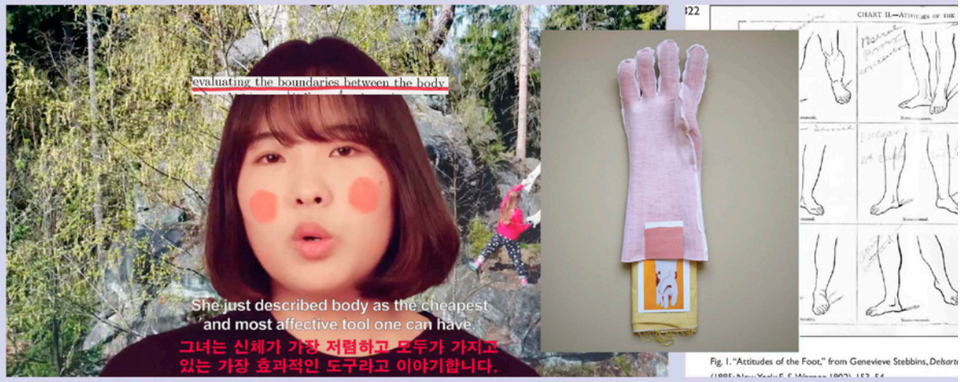


Fig. 1."Attitudes of the Foot," from Genevieve Stebbins, *Delsart*

RISK, SURVIVAL and COMMUNICATION

Images: The Rodina, Studio Daniel Costa, Delsarte System of Expression

Prompt 3
OBJECT-BODY-WEATHER ASSOCIATION

Prompt 3 invited participants to consider a climate-sensitive wearable in a domestic object they brought to the workshop. We explored what people may seek in an object: protection, care, anticipation and survival; noting that there may be other things inherent in material quality, sensory or emotional connection that would guide why they chose that object. Before everyone presented, we asked them:
How does that object help you make sense?

-prompt 4-
COLLAGING CLIMATE WEARABLE

Images: NASA, Wang & Söderström, Lundén Architecture Company, NASA, Lucy Hardcastle, Anton Alvarez, Popalini and Jezando; Quote: Hannah & Selin

Prompt 4
COLLAGING CLIMATE WEARABLES

The collective climate forecasts, expressing climate data and sense-oriented object stories, were all building up to this prompt. We asked: What would they want to know and communicate to others through something that could be worn on the body?

PROMPT 4 EXAMPLES

Design researcher Marie Louise Juul Sondergaard had learned that air pollution affects the regularity of menstrual cycles and used this prompt to suggest a climate wearable that drew from the properties of nature—moss as absorbent and as something that can offset emissions—and from masks as a type of wearable protection from air pollution. Arts educator Monika Huynhová used their weather forecast to influence their collage, expanding the idea of what an umbrella could look like and what other signals it could propose.

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topographies

Big Pictures Lab

Exploring visual culture in the built environment

Erin Ashenhurst Faculty, Graphic Design for Marketing

The aurora borealis swims between the treetops of Harbour Green Park on the edge of Vancouver's Coal Harbour neighbourhood. Beams of bright blue and green are projected through artificial particulate clouds generated by machines installed at the park's periphery. The resulting effect is a suspended, nebulous field—an inverted ocean of dynamic light. It is November, and the park plays host to dozens of onlookers, bundled in jackets, gazing upward in awe. We are quiet for a crowd, hushed by a shared sense of reverence for what feels like magic. The cinematic quality of the moment is heightened by an ambient soundscape composed by Guillaume Desbois. This is *Borealis*, an installation by international artist Dan Archer presented as part of Vancouver's 2024 Lumière Festival. The work orchestrates an unexpected opportunity for delight—a familiar public space transformed, a group of strangers immersed in a collective dream.

Such encounters represent the potential of public art and creative interventions in urban environments. These projects provoke, inspire, and positively disrupt the routines of everyday city life. Motivated by this ethos, *Big Pictures Lab* was established in 2022 by Wilson School of Design faculty members Carley Hodgkinson and Erin Ashenhurst. The lab was created to foster opportunities for exchange, collaboration, and research among artists, designers, curators, students, and scholars interested in exploring the role of visual culture in the built environment.

Supported by funding from KPU's Teaching and Learning Innovation Fund, the inaugural *Big Pictures: Murals, Billboards & Urban Interventions* conference was hosted over three days at the Wilson School of Design in May of 2023. Keynote presentations included artist Elizabeth Zvonar, who spoke on her large-scale billboard works produced for the Capture Photography Festival; muralist Sandeep Johal, known for her Indo-folk-inspired, feminine aesthetic visible on walls and shrouding all around the Lower Mainland; and mixed-media artist Brandon Gabriel of the Kwantlen First Nation, whose designs appear in public installations including the environmental lighting at KPU's Langley campus.

In addition to these keynotes, a day of panels featured the work of twelve presenters, including practitioners and curators of public art, local and international academics, and artists working in a variety of media. Participants came from the KPU community, the Metro-Vancouver area, Toronto, San Francisco, and the Southern United States. The day culminated in a panel led by curators from the Vancouver Mural Festival. To broaden accessibility, the conference also accepted video submissions, which were screened during the event and hosted online. These included contributions from artists based in Canada, the United States, the Philippines, and Eastern Europe. On the final day, participants joined a walking tour of Vancouver's Mount Pleasant neighbourhood to examine murals produced over the years by the Vancouver Mural Festival. Led by Alasdair Butcher of Vancouver DeTours, the tour provided space to reflect on the connection between the presented research and the murals encountered in situ.

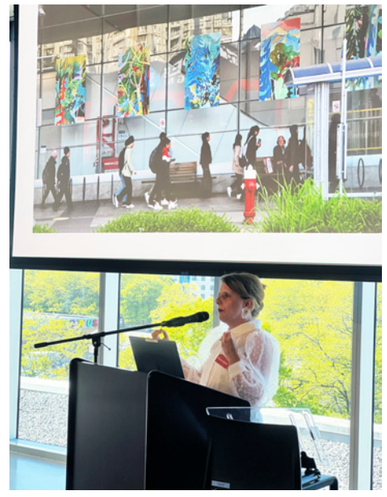
***

On the top floor of the Wilson School of Design, a small group gestures exuberantly—waving arms, inventing dances, and laughing. Each person holds a smartphone and watches the large screen where animated mushrooms appear to grow and transform. This is *Glowshrooms*, an interactive installation developed by Amesh Narsing and the team at Hololabs. Facilitated through an app, players appear on the screen as mushrooms within a shared augmented environment. Each mushroom's growth is linked to physical movement—prompting both amusement and spirited competition. This playful moment occurs during the happy hour of the second *Big Pictures* conference in 2024.

Earlier that day, Narsing presented alongside artist Kemi Craig and Connor Tice, project manager for the City of Victoria, on an immersive piece created by Craig as part of the Winter Arts Festival. After the full day of panels, this second conference culminated with a keynote session focused on public art and design along the Canada Line SkyTrain—projects made possible by the City of Richmond. Keynote panellists included City of Richmond's public art curator Biliana Velkova, Richmond Art Gallery director Shaun Dacey, curator Maria Filipina Palad, and artist Cherry Archer, who discussed installations and large-scale photographic works found in SkyTrain stations linking KPU's Richmond campus to downtown Vancouver. Among the works discussed was Kayla Bough's 2022 photo series *Objects Given to My Mom Because She Is Asian*. I remember encountering this piece installed on the exterior glass wall of Lansdowne Station, a curious point of cultural reflection between the train ride home and the gray expense of the mall parking lot.

On the second day, conference attendees convened for a walking tour of Minoru Park and an exhibition at the Richmond Art Gallery facilitated by Valkova and Dacey. Artist Germaine Koh, who presented on a panel the day prior, joined the tour to demonstrate her collaborative work with Gordon Hicks, *Errant Rain Cloud*. A sculptural installation suspended above the Aquatic Centre pool, the comical cloud form collects condensation from the environment and releases it like rain. As droplets fell inside the building, a swimmer below lifted his face to the rain—an unexpected convergence of public space and poetic experience. These moments of connection, wonder, and reflection are central to the mission of *Big Pictures Lab*.

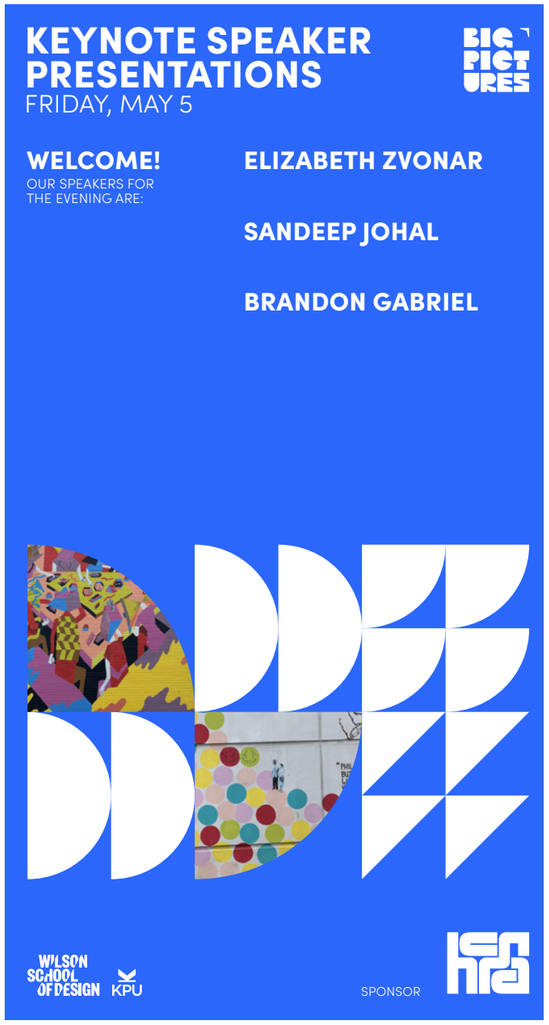
In March 2025, the Lab partnered again with the City of Richmond to relaunch the City's *Lulu Series* speaker program. Josée Drouin-Brisebois, Director of National Engagement at the National Gallery of Canada, delivered a talk on creating accessible art experiences and supporting creative practices outside traditional gallery settings. Looking ahead, *Big Pictures Lab* intends to continue cultivating spaces for dialogue and collaboration, with future initiatives aimed at publishing, community engagement, and design education. As the lab evolves, its goal remains steadfast: to spark and support moments of delight and discovery in our everyday urban spaces.



IMAGES FROM THE 2023 (FACING, TOP) AND 2024 (FACING, LOWER AND ABOVE) CONFERENCES
PHOTO CREDITS:
ELIAS LEMKE + CODY GARCIA
- https://wordpress.kpu.ca/bigpictureslab
@bigpictures_yvr

ASSEMBLY ISSUE 01

BIG PICTURES MURALS BILLBOARDS AND URBAN INTERVENTIONS



2023 BIG PICTURES CONFERENCE
BRANDING + ASSETS
ELIAS LEMKE, RESEARCH ASSISTANT
2024 GRAPHIC DESIGN FOR MARKETING ALUMNI
~ logo, custom typeface, conference posters

2024 BIG PICTURES CONFERENCE
BRANDING + ASSETS
CODY GARCIA, RESEARCH ASSISTANT
2025 GRAPHIC DESIGN FOR MARKETING ALUMNI
~ conference posters, updated logo

Breaking the Walls

A speculative design for GraMural Scape in Strathcona

Iryna Karaush Faculty, Product Design

Imagining placemaking interventions at the intersection of murals, graffiti, and public space

CONTRASTING VIEWS OF TWO FACADES: HASTINGS STREET AND BACK ALLEY
I. KARAUSH, 2024
~ Figure 1

Walking in Strathcona, one of Vancouver's oldest neighbourhoods, reveals a vibrant streetscape where murals guide visitors through a blend of old and new, public and private spaces. This buoyant dialogue, crafted by artists, is contrasted by the graffiti of back alleys—where art sometimes shifts from playful to rebellious, transforming calligraphy into bold, cautionary signs.

These two contrasting narratives—front-facing murals and back-alley graffiti—exist side by side but occupy different spheres of public engagement. How can back-alley graffiti be made visible from the front façade? How can back-alley artists' voices reach the casual observer? And how can placemaking be reimagined to serve everyone? (Fig.1)

LOOKING BACK—HISTORICAL CONTEXT

To understand the dynamic and dichotomous visual narrative of Strathcona's streetscape, it is important to first examine the area's history. Strathcona emerged in the late 19th century as an industrial hub with worker housing, primarily built for immigrant communities. Officially named in the 1960s, the neighborhood underwent significant rezoning as housing demand grew, reducing residential areas in favor of expanding industrial zones. The mid-20th-century urban redevelopment push—particularly from the 1950s to the 1980s—aimed to replace so-called "slums" with clean, modern industrial districts. Hypothetically, these efforts were influenced by Le Corbusier's modernist planning concepts, such as Le Voisin (Le Corbusier, 1967) and The Radiant City (Le Corbusier,1967), which prioritized large-scale industrial efficiency over human-centered urban life. However, economic constraints prevented these ambitious plans from fully materializing, leaving a legacy of environmental degradation and social displacement.

Despite these shifts, Strathcona's residents adapted, forming self-sustained, multicultural communities characterized by both economic hardship and local resilience. The urban landscape became fragmented, with flamboyant Victorian-style homes symbolizing affluence, while some areas adhered to a more austere "barrack economy" model, with industrial structures repurposed into low-cost housing. These disparities exacerbated the social divide, as pressures of gentrification marginalized economically disadvantaged residents, turning back-alley spaces into contested urban zones.

Ironically, the rise of placemaking, championed by urban thinkers like Jane Jacobs and William H. Whyte, coincided with Strathcona's rezoning and social upheaval. In *The Death and Life of Great American Cities*, Jacobs advocated for walkable neighbourhoods and "eyes on the street" to enhance community safety. Whyte expanded on this, identifying key elements for social interaction in public spaces. Their vision of human-centred, dynamic environments contrasted sharply with the top-down, industrial-driven urban policies shaping Strathcona at the time.

The contested history of Strathcona highlights the ongoing tension between large-scale urban planning and grassroots urbanism. While industrial redevelopment aimed at economic growth, it often displaced marginalized communities, complicating the realization of placemaking. Until the early 2000s (EastVangelist, 2020), public space remained an eclectic mosaic, shaped by diverse social forces rather than intentional design. As land values increased, new retailers and housing developments reshaped the area, accelerating gentrification and redefining public spaces. The continued dynamic between the old and new could be seen in the contrasting facades of the oldest convenience store and the new build retail space (Fig.2).

In contrast to industrial Le Corbusier-inspired modernism, Jacobs and Whyte's principles of placemaking underscored the importance of community-driven urbanism, which emphasized inclusivity and the power of public space to foster social connections—principles that later influenced Strathcona's street art scene.

Strathcona's history reveals a complex relationship between top-down urban planning and grassroots movements. While modernist planning often overlooked marginalized communities, Jacobs and Whyte's ideas paved the way for more inclusive, community-driven approaches, which would influence the evolution of Strathcona's street art.

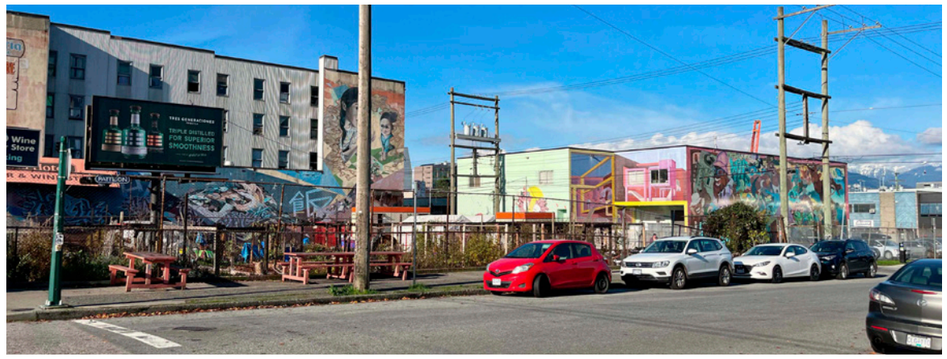
PUBLIC SPACE AND VISUAL NARRATIVE: THE EMERGENCE OF GRAFFITI AND MURALS IN STRATHCONA, VANCOUVER

Graffiti in Strathcona has deep roots in Vancouver's underground art scene. Emerging in the late 20th century, it became a form of unsanctioned expression tied to youth culture, hip-hop movements, and resistance to urban redevelopment. As Ferrell (2015) notes, "Graffiti art in the urban landscape of Vancouver reflects a cultural movement in which marginalized youth used the city as their canvas for resistance."

Strathcona, historically home to working-class and immigrant communities, embraced graffiti as a challenge to authority, a way to reclaim space, and an assertion of cultural identity. Zukin (2010) describes graffiti as "a direct challenge to authority and an act of subversion in cities where the right to use public space has been commodified."

Over time, graffiti and murals have helped shape Strathcona's evolving identity. As the neighborhood gentrified, street art continued to serve as both a creative

STRATHCONA'S MURALS
I. KARAUSH, 2024
~ Figure 3



outlet and a statement of resistance, reflecting the socio-political changes in Vancouver.

In the 1990s and early 2000s, graffiti was largely seen as vandalism, prompting policies like the Graffiti Management Program (2002). Despite these efforts, graffiti persisted in Strathcona as a countercultural expression and resistance to urban redevelopment. As Henry Chalfant argues, "Graffiti speaks to the impulse of people to claim public space as their own, to make a mark that asserts their identity, even if it challenges authority" (Chalfant, 2016). This defiance reflects broader tensions over who controls public space.

As graffiti faced crackdowns, murals gained prominence through city-led beautification efforts and community-driven initiatives. The Vancouver Mural Festival (2016–2025) helped legitimize street art, introducing large-scale murals celebrating cultural heritage, social justice, and urban storytelling (Fig.3). However, as murals became more common, debates arose about their role in gentrification. While some saw murals as enriching the community, others viewed them as sanitizing the raw, rebellious nature of graffiti.

Zukin (2010) notes that "Murals, especially in gentrifying neighbourhoods, serve as both an emblem of cultural identity and a vehicle for the commodification of public space." This shift raised concerns that murals, often commissioned by businesses or city programs, reinforced commercial interests, potentially displacing marginalized communities and creating a curated visual identity (Kozelj, 2022).

Strathcona's street art scene reveals a conflict between sanctioned and unsanctioned expression. While murals are celebrated for revitalizing neighbourhoods, graffiti remains a contested form of subversion. Unlike murals, graffiti resists institutional control, challenging urban aesthetics shaped by commercial interests (Ferrell, 1996).

Some artists blur these boundaries by incorporating graffiti techniques into murals or creating community storytelling and institutional influence, participatory art that disrupts traditional distinctions between legality and illegality (Chmielewska, 2007). These hybrid forms reflect the evolving nature of urban art, navigating tensions between.

CURRENT LANDSCAPE AND SPECULATIVE POSSIBILITIES

Strathcona's walls serve as a living archive of the neighbourhood's cultural shifts, highlighting the coexistence and conflict between murals and graffiti. Murals often align with official beautification and economic revitalization narratives, while graffiti remains an unfiltered voice of dissent.

As Strathcona continues to evolve, speculative design offers a framework for imagining alternative futures—futures that challenge traditional urban hierarchies and reimagine public spaces as fluid, participatory environments. Dunne and Raby (2013) explain that speculative design is "a means of speculating about how things could be—imagining possible futures instead of predicting a single outcome." This approach allows us to reconsider the rigid dichotomy between sanctioned and unsanctioned art, fostering a more inclusive, dynamic visual ecosystem where creative expression can thrive beyond institutional constraints.

SPECULATIVE DESIGN SCENARIOS

The following speculative design scenarios envision innovative ways to bridge the gap between sanctioned and unsanctioned art in Strathcona, offering fresh perspectives on urban space and community engagement.

CHANGING STRATHCONA
I. KARAUSH, 2024 (LEFT);
DIONYSIOS (N.D.) (RIGHT)
~ Figure 2

SCENARIO 1
UNDER THE RADAR – SEEING WITHOUT BEING SEEN

This speculative design connects hidden back alleys with vibrant front streets through observation. By safely navigating under the radar, individuals can explore urban spaces without direct exposure. What if one could observe without being noticed? Mirrored reflections or augmented reality could reveal the dynamic graffiti and overlooked beauty of alleys, sparking curiosity and redefining perception. This approach transforms how we engage with urban landscapes, fostering awareness and appreciation of unseen spaces while ensuring safe exploration. Through speculative tools, the act of seeing becomes a bridge between the overlooked and the known. (Fig.4)

SCENARIO 2
REVERSE EYE SPY – BRIDGING FRONT AND BACK THROUGH PLAYFUL PERSPECTIVES

Inspired by Jacob's "eyes on the street," this speculative device enhances vision beyond barriers, revealing hidden urban spaces. By throwing an "eyeball" over a wall, users gain new perspectives, transforming fear of the unknown into curiosity. This tool challenges conventional observation, reshaping interactions with public and private spaces. It raises ethical questions about privacy while expanding perception, making the city an interactive landscape of discovery. Through playful engagement, the act of looking becomes an exploration, redefining our relationship with the urban environment. (Fig.5)

SCENARIO 3
CARPLAY – EXPLORING THE UNFAMILIAR

Imagine a remote-controlled toy car designed to explore unfamiliar neighbourhoods, offering users a chance to experience and interact with spaces from a distance. This playful method bridges the gap between the known and the unknown, redefining how we connect with different urban environments and communities. It allows users to explore areas they might not typically venture into, using the toy car as both a vehicle for discovery and a metaphor for new ways of relating to the urban landscape. This speculative scenario creates an accessible form of exploration that encourages learning through play. (Fig.6)

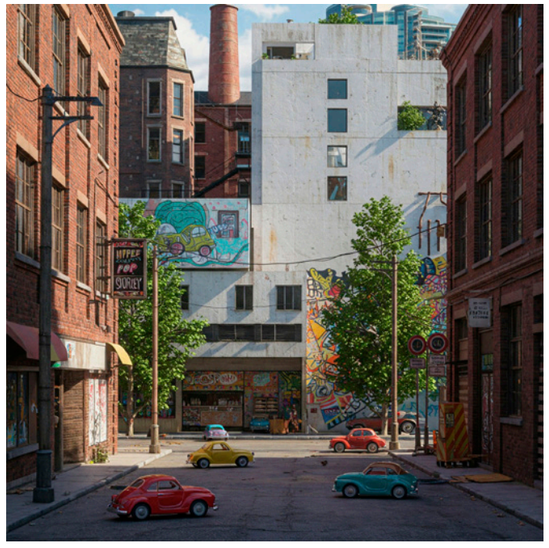
SCENARIO 4
INCLUSION – LIGHT AT THE END OF THE TUNNEL

Tunnels, often seen as dark or transitional spaces, are reimagined as vibrant corridors of inclusivity, where street art—such as murals and graffiti—tells the unique story of Strathcona. Public benches are placed throughout these tunnels, inviting conversation and interaction. This scenario envisions transforming tunnels into spaces of shared experience, connection, and cultural expression. Rather than being neglected or overlooked, these spaces become integral parts of the urban fabric, fostering a sense of community through art and shared storytelling. (Fig.7)

SCENARIO 5
TOUCHING LAYERS OF CONNECTION

This scenario proposes that touching a graffiti-covered wall could reveal hidden layers of community artwork, unlocking a deeper interaction with the neighbourhood. As individuals engage with the physical space, they uncover a narrative that evolves over time, allowing people to contribute to and influence the story of the area. This approach emphasizes the importance of tactile, personal interaction with urban art and fosters a sense of ownership and participation within the community. By revealing these layers, the city becomes a dynamic, living canvas, shaped by the people who inhabit it.

These speculative scenarios present imaginative ways to rethink how we interact with urban spaces and unsanctioned art, fostering connection, curiosity, and a deeper engagement with the places we live.



SPECULATIVE DESIGN SCENARIOS
GEMINI (AI-GENERATED), 2025

~ clockwise from top left

~ Figure 4
UNDER THE RADAR

~ Figure 5
REVERSE EYE SPY

~ Figure 6
CARPLAY

~ Figure 7
INCLUSION

CONCLUSION: A SPECULATIVE DESIGN FOR GRAMURAL SCAPE IN STRATHCONA

This exploration of Strathcona's murals and graffiti reveals how these urban art forms, while distinct, both serve as powerful expressions of identity and resistance. Through speculative design, the future of these walls can be reimagined, transforming public space into a dynamic, participatory environment that celebrates diverse artistic voices and empowers marginalized communities. This transformation aligns with the principles of placemaking, where the design and use of space are shaped by the people who interact with it, fostering a sense of belonging, identity, and community.

Henri Lefebvre, in *The Production of Space* (1974), argues that "space is a social product," and that its meaning is shaped by the interactions and relationships within it. Placemaking emphasizes that space is not just a physical container but a social construct. In Strathcona, the production of space through murals and graffiti is a testament to the community's ongoing negotiation of identity, culture, and social interaction. Through speculative design, these spaces can be reconfigured as open canvases for community-driven narratives, bridging the gap between public art and communal engagement.

Building on these theoretical foundations, we propose that Strathcona's walls, as both canvases and pathways, offer a unique opportunity to explore the interplay between individual action and collective space. As De Certeau suggests, walking—and by extension, experiencing the city's art—is an act of claiming ownership (De Certeau, 1980). This aligns with Lefebvre's concept of space as a social product (Lefebvre, 1974), where the community actively shapes its environment. In Strathcona, this shaping takes the form of murals and graffiti, each a testament to the lived experience and ongoing negotiation of identity.

In breaking these walls, we don't just reshape the physical landscape; we also reshape our connection to it. By fostering a participatory approach to placemaking, Strathcona's urban spaces can become more than just a backdrop—they can be active, evolving expressions of community culture, inclusivity, and creativity, where every voice, every story, and every surface plays an essential role in the transformation of the city.

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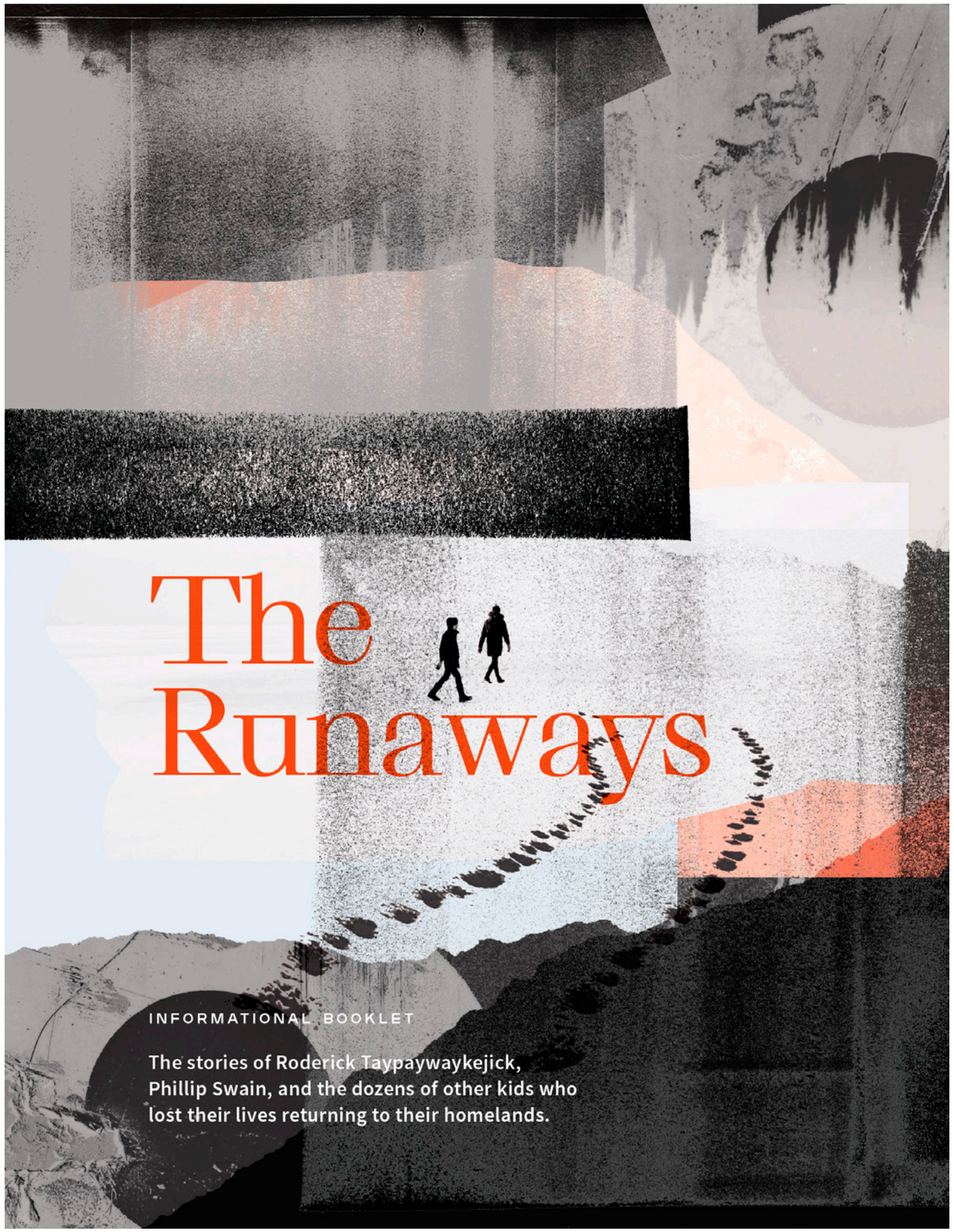
Designing for Truth

Harnessing the power of design to shed light on Canada's residential school history

Michael Cober Faculty, Graphic Design for Marketing

THE RUNAWAYS
THE STORY OF PHILLIP SWAIN
+ RODERICK TAYPAYWAYKEJICK
~ LIAM KENNEDY, 2019
~ Figure 1 (facing)



For over 160 years Canada's residential school system operated throughout Canada. The stories of abuse—emotional, physical, spiritual, and sexual, permeate every school and church throughout Canada that participated in their operation. Often defined as a cultural genocide, this dark chapter of Canada's history is often dismissed as an exaggeration, or in recent years, denied by those who are not convinced by the evidence that exists or the testimony of survivors. It is from this context that Graphic Design for Marketing students are tasked with designing an artifact about Canada's residential school system that can be rationalized as an infographic.

The project aims to show students that graphic design is a powerful tool for education, storytelling, and raising awareness about critical issues—not just a tool to sell more sneakers. The brief is simple: present your content and information in a way that is accessible, compelling, and suitable for public display.

Over the past five years, students have demonstrated remarkable creativity, producing varied and impactful solutions that highlight the versatility of design in communicating complex narratives. While the project is deeply rewarding, it is also emotionally challenging. Students often report the emotional toll of engaging with such a difficult topic but overwhelmingly value the learning and growth they gain from the process. Many describe it as their most rewarding project—simultaneously their best, worst, favourite, and most hated assignment. Ultimately, this project underscores the potential of graphic design to inform, educate, and inspire empathy while addressing serious subject matter.

THE RUNAWAYS

The Boys' Early Life

Phillip Swain grew up on the outskirts of Grassy Narrows, where his dad, Isaac Kabestra, was still working as a guide for tourists and checking his trap lines for beaver and mink.

If the Department of Indian Affairs came calling, parents had little choice but to surrender their children to residential schools. The alternative was potential jail time. Phillip (11) and his older brother Clifford (13) were shipped off to St. Mary's in the fall of 1969.

A year later a new student joined them at the Kenora residence: Roderick Taypaywaykejick (known as Keesick, for short, as many in his family are).

Grassy Narrows has long been a heartbreaking place, a reserve so ravaged that it's difficult to diagnose the beginning of its breakdown. Many point to the mid-1960s, when Ottawa convinced the band to relocate from its ancestral land into prefab houses so close together—and linked to a Kenora-bound road—that it forever disrupted the community's roots as hunters and gatherers. Alcohol flowed into the reserve, and premature deaths, many by suicide, became all too common. A visiting sociologist once described Grassy Narrows as "more deeply damaged than any community I had ever seen. Or heard about. Or even imagined."

Then came word, in 1970, that the surrounding river was contaminated, poisoned with mercury dumped upstream by a pulp and paper mill. Don't eat the fish, residents were warned. Don't even swim. What was left of the old ways—trapping, guiding, commercial fishing—was decimated. Welfare rates skyrocketed, ushering in an era of despair and dependency that continues to this day.

Swain and Taypaywaykejick grew up around this upheaval, but it paled in comparison to the trauma they experienced and ultimately fled at St Mary's.

Grassy Narrows has long been a heartbreaking place, a reserve so ravaged that it's difficult to diagnose the beginning of its breakdown.

MERCURY POISONING RATES

90%

of the population in Grassy Narrows still experiences symptoms of mercury poisoning.

THE RUNAWAYS

THE RUNAWAYS

Time at St. Mary's

Like other residential schools across the country, survivors of St. Mary's experienced horrific trauma. "They would strap you on the hands," says Simon Fobister, the current Grassy Narrows chief, who went to St. Mary's with Roderick and Phillip. "A lot of kids would pull their hands out at the last second because they didn't want to feel the pain."

By 1970, St. Mary's was more residence than school. Most of the children, except those in early primary grades, were being bused to local classrooms in Kenora, then returned to campus for supper and bedtime. Roderick and Bean attended Mount Carmel, a row-shuttered elementary school in the downtown core. So did Clifford.

On Friday, Nov. 27, 1970, over lunch hour, Roderick and Bean snuck away from Mount Carmel's playground and walked toward the local Indian Affairs office, a short distance away. There, they spoke to a guidance counsellor named Clark Day, pleading for permission to go home. Roderick was especially persistent; multiple times, he had pestered Father Lebleu with the same request.

The guidance counsellor convinced both boys to return to school, and when they left his office he assumed that's where they went. Testifying at the coroner's inquest a few weeks later, Day said he never thought to offer the pair a ride because it was typical to see students downtown at lunch. The boys never arrived back at Mount Carmel—or St. Mary's.

"At afternoon recess time, I didn't see him," Clifford recalls. "I was worried." By supper, when his brother didn't surface in the meal line, he was frantic. He and Phillip ate dinner together every night, like clockwork. "I tried to tell people, the counsellors and the sisters, but nobody listened," he recalls. "Nobody listened."

St. Mary's was more residence than school. Most of the children, except those in early primary grades, were being bused to local classrooms in Kenora, then returned to campus for supper and bedtime.

~ Figures 2 & 3, Liam Kennedy

FOR THE CHILDREN, THEN AND NOW

AN EXHIBIT TO HONOUR SURVIVORS AND THE MEMORY OF THOSE WHO DID NOT MAKE IT HOME BY GIVING THEM A VOICE.
~ CALI MARTIN, 2023, ***Figure 4***

REMEMBERING TO REMEMBER

A COLLECTION OF SMALL WOODEN CARDS, HELD IN A BENTWOOD BOX. EACH IS ENGRAVED WITH DEEPLY PERSONAL ANECDOTES AND QUOTES, AS WELL AS STATISTICS, OR IMAGES THAT DOCUMENT MEMORIES AND EXPERIENCES OF RESIDENTIAL SCHOOL SURVIVORS.
~ MANESHA DULAY, 2022, ***Figure 5 (above)***

THE RESPONSIBILITY OF EVERY CANADIAN

A PROPOSED GOVERNMENT PRINT PACKAGE INTENDED FOR NEW CANADIAN IMMIGRANTS AND NEWCOMERS TO EDUCATE THEM ABOUT THE LEGACY OF THE RESIDENTIAL SCHOOL SYSTEM.
~ CODY GARCIA, 2024, ***Figure 6 (facing)***

A Strange Land We Call Home

Veronika Kansaka

Student, Graphic Design for Marketing

THIS PROJECT IS DEDICATED to the journey of the Koryo-saram, ethnic Koreans on Sakhalin Island, Russia, who were torn from their homeland as forced labourers and left stranded in an alien landscape.

Their story is one of profound loss—of home, culture, and identity—yet also of remarkable resilience. Through generations, they built a new sense of belonging in a strange land we, their descendants, now call home.

The logo design is inspired by the Korean Dojang (personal seal), representing the Koryo-saram's unique identity within the Korean community. Raw photography shows the authentic faces behind the story, while blurred images act as metaphors of the experience of living between cultures, and the constant search for a sense of belonging.

Wunderkammers Reimagined

Learning management systems as curiosity-driven learning space

Ernest Van Der Merwe, PhD Wilson School of Design

The concept of a "Wunderkammer," or "Kunstkammer"—translated from German as "rooms of marvel/wonder" or "cabinets of curiosities"—refers to collections of diverse and fascinating objects that sparked curiosity and wonder (Auricchio, 2002, p. 50). Originating in Europe in the 14th century and peaking in the 16th and 17th centuries, these spaces encouraged imagination, exploration, and learning (Brzezińska-Winkiel, 2020, p. 345; Mauriès, 2011, p. 98). Wunderkammers invited viewers to explore knowledge beyond traditional boundaries, fostering curiosity and intellectual engagement by offering a curated array of artifacts and curiosities.

In today's educational landscape, Learning Management Systems can be reimagined as digital counterparts to these Renaissance Wunderkammers. Often seen merely as tools for managing digital content, these platforms hold untapped potential to become spaces for curiosity-driven learning, exploration, and intellectual engagement. Rather than simply presenting information in a linear format, LMS platforms can invite students to discover, explore, and create their learning paths—much like the serendipitous discoveries fostered by the original cabinets of curiosities.

Definitions of LMS provide a foundational understanding of these systems' technical capabilities, but their potential transcends this functionality. For example, Prasad (2020) defines an LMS as "a software application that helps with the management of digital training content," while Fry (2022) elaborates that an LMS "helps you create, manage, organize, and deliver online learning materials to learners" as mentioned by Lang (2023, p. 174). These definitions highlight the utility of LMS platforms in educational settings. However, they also suggest an opportunity for reimagining these systems as dynamic spaces for intellectual exploration, much like the curated collections of a Wunderkammer.

By rethinking LMS platforms as modern-day "Wunderkammers," educators can transform them into environments designed to stimulate curiosity, exploration, and intellectual engagement. These spaces encourage users to explore topics and resources freely, moving away from rigid, linear presentations of information. Instead of merely uploading content, instructors can curate resources that reflect diverse perspectives and encourage self-directed discovery. Practical examples, such as customizable modules and multimedia resources, illustrate how LMS platforms can become interactive, exploratory learning environments that cater to students' interests and foster deeper engagement.

Faculty training is key to realizing the full potential of these digital Wunderkammers. Onboarding programs that encourage educators to think creatively about LMS design can transform these platforms into dynamic learning environments that support personalized learning paths. By integrating principles of curiosity, exploration, and intellectual engagement, LMS platforms can evolve into virtual hubs of wonder and discovery, motivating students to approach their educational journeys with greater autonomy and enthusiasm.

THE RELEVANCE OF WUNDERKAMMERS IN REIMAGINING LMS

The concept of digital Wunderkammers is not entirely novel, as demonstrated by Terras (2011), who examined how digitization projects shared on social media platforms can enhance the accessibility and appeal of resources. Additionally, this article adds to the growing body of research on the relationship between Wunderkammers and modern creative and cultural practices, a field that remains in its nascent stages (Bowry, 2015, p. 2).

The idea of reimagining LMS as digital Wunderkammers resonated with my role as Associate Dean. Acting as a bridge between Teaching and Learning, I supported the onboarding of new faculty members at the Wilson School of Design at Kwantlen Polytechnic University (KPU). Between 2023 and 2024, I assisted with faculty integration of LMS into their teaching practices and observed a strong link between innovative LMS use and high student engagement during class visits. Instructors who viewed Moodle not just as a content repository but as a dynamic, curiosity-driven space fostered greater student interest and participation. These experiences highlight the potential of LMS platforms to act as modern Wunderkammers—spaces for active learning, exploration, and meaningful engagement.

INSTRUCTORS AS MODERN-DAY CURATORS AND CREATORS

The foundations of many of today's most renowned museum collections were established by cabinets of curiosities, which served as predecessors to the modern museum (Wallentine, 2023). The British Museum is a prime example that owes much of its establishment to Sir Hans Sloane's (1660–1753) collection, which significantly contributed to the creation of the museum, the British Library, and the London Natural History Museum (Ashworth and Hall, 2024; Pullar, 2024). By the time of his death in 1753, Sloane had amassed over 71,000 items.

Sloane bequeathed his collection to the British nation in his will, marking the foundation of the British Museum (Ashworth and Hall, 2024).

These fascinating spaces of discovery not only shaped the development of museums but also gave rise to the practice of curation. Today's educators assume roles similar to those of Renaissance collectors and contemporary museum curators. These intellectuals—often doctors and scholars—curated and organized objects to reflect their unique perspectives on the world (Auricchio, 2002, p. 50; Berry, 2018, p. 20; West, 2014). Similarly, educators curate educational materials—lectures, multimedia, quizzes, and discussion forums—within LMS platforms.

These resources create a digital space for exploration and discovery. Just as Renaissance collectors like Rudolf II curated their collections to express their worldviews, instructors design learning environments that reflect their educational vision, inviting students to explore and form connections (Brzezińska-Winkiel, 2020, p. 346; Purš, 2012). The way instructors guide students to engage with the material is pivotal in shaping their perceptions and interactions. A well-curated Moodle site can embody both dominant worldviews and niche topics, highlighting emerging trends. The content becomes a reflection of the instructor's teaching philosophy, personal perspectives, and expertise.

An LMS is more than a repository for grades, rubrics, course deadlines, notes, DIY manuals, or YouTube videos. Beyond presenting assignments or structured lectures, an LMS can host multimedia resources, discussion forums, and exploratory exercises that capture the curiosity-driven spirit of a Renaissance cabinet of curiosities. Thus, the role of an LMS extends beyond mere utility, becoming a dynamic tool for crafting a learning experience that reflects the instructor's pedagogical vision and shapes student engagement. However, effectively transitioning from a theoretical model of curation to practical application requires thoughtful faculty training.

IMPLICATIONS FOR FACULTY TRAINING AND DEVELOPMENT

One of the challenges in reimagining LMS as digital Wunderkammers is ensuring faculty are trained to use these systems creatively and flexibly. Effective LMS design requires shifting from merely uploading content to crafting an engaging, exploratory environment. Faculty onboarding programs should emphasize curiosity-driven learning and encourage educators to embrace the role of a curator. Training should include workshops on integrating multimedia resources, creating open-ended assignments, and designing interactive forums, enabling instructors to view the LMS as a collaborative space reflecting their educational philosophy.

However, effective faculty development must extend beyond initial onboarding. Ongoing professional development, such as attending conferences, meeting with industry experts, and participating in advisory boards, is essential for staying current with digital education trends. These engagements provide valuable insights into evolving educational technologies and offer new tools for enhancing teaching through LMS platforms. Using these resources enables faculty to incorporate emerging trends like gamification and artificial intelligence (AI) into their teaching practice, aligning their courses with institutional and global pedagogical developments.

In addition to these external connections, continued professional development opportunities such as peer collaborations, mentoring programs, and access to learning resources are critical for sustaining creativity and innovation. Peer learning communities encourage faculty to share strategies, troubleshoot challenges, and experiment with new LMS features. Mentorship programs guide newer faculty, ensuring they benefit from institutional knowledge and best practices. Access to ongoing professional development also helps faculty stay up to date with LMS updates and new pedagogical trends.

A key point of distinction in crafting a rich LMS environment is the inclusion of original content rather than relying solely on externally sourced materials, such as YouTube videos. Original content, tailored to the specific learning goals and subject matter, offers instructors more control over the narrative and the ability to create a cohesive, personalized learning experience. Unlike generic online videos, original content allows for deeper engagement with the material, enabling instructors to align resources directly with their curriculum and pedagogy. It also encourages students to connect with unique perspectives that reflect the instructor's educational philosophy, fostering a stronger sense of academic ownership and authenticity in the learning process.

By fostering a culture of digital curatorship, institutions can empower educators to transform their LMS into dynamic learning environments that reflect their pedagogical vision and inspire curiosity-driven engagement. A well-curated LMS promotes exploration and interaction, helping both students and instructors thrive in the digital education ecosystem.

NOTE

Cover Image generated using the prompt "A hyper-realistic photograph showcasing neon lime and yellow-coloured artefacts meticulously arranged in a knolling composition. The collection features a diverse mix of critters, bigfoot, mythical monsters, mermaids, dragonflies, and everyday objects like keys, cups, spoons, screwdrivers, bird skulls, medical equipment, and test tubes. The scene is bathed in warm, low lighting, evoking a nostalgic and intimate atmosphere with a hyper-realistic yet nostalgic aesthetic," by Adobe, Adobe Firefly, 2025 (https://firefly.adobe.com/).

To support faculty in adopting creative and flexible LMS practices, institutions should design a dynamic onboarding framework that emphasizes continuous learning. Below are some key initiatives:

Mentoring Programs

Pair experienced faculty with newcomers to guide them in curating their LMS environments, navigating digital tools, and applying creative teaching strategies.

Peer Learning Communities

Create collaborative spaces where faculty can share best practices, troubleshoot challenges, and discuss new trends in LMS use and technology integration.

Workshops on Emerging Tools

Focus on integrating cutting-edge technologies such as Generative Artificial Intelligence (GenAI) into courses. Faculty should be educated on the responsible and ethical use of GenAI tools to enhance teaching while maintaining academic integrity.

THE LIMITATIONS OF LMS DESIGN AND THE NEED FOR IMPROVED UI/UX

While the potential of LMS platforms as modern-day Wunderkammers is compelling, it is important to recognize that the current format and design of many LMS platforms limit their effectiveness in capturing the attention of today's tech-savvy students. LMS interfaces often lack the engaging, interactive features found in popular social media platforms like Instagram, TikTok, and YouTube. These platforms excel in offering immersive, visually appealing, and user-friendly experiences that cater to users' need for instant engagement and continuous novelty.

To effectively compete for students' attention, LMS platforms must evolve to incorporate modern design principles that prioritize user interface (UI) and user experience (UX). A key challenge for LMS platforms is to break free from the traditional, often cumbersome, formats that prioritize functionality over engagement. Students are accustomed to highly visual, interactive, and immersive environments on social media platforms, and LMS systems need to mirror these experiences to remain relevant and engaging.

Improving LMS UI/UX involves creating visually appealing, intuitive interfaces that promote ease of navigation, foster personalized learning, and offer interactive, multimedia-rich content. Incorporating features such as gamification, interactive dashboards, and multimedia storytelling can transform LMS platforms into dynamic, curiosity-driven environments that align with students' expectations. Furthermore, LMS platforms should be mobile-friendly and responsive, ensuring students can engage with content on any device, whether at home or on the go.

Incorporating these design improvements would not only enhance student engagement but also encourage more active participation, exploration, and intellectual curiosity—aligning with the vision of LMS as modern-day Wunderkammers. As students' digital habits continue to evolve, LMS platforms must adapt to meet their expectations and provide learning environments that are as engaging and dynamic as the platforms they use in their daily lives.

CONCLUSION: LMS AS CURIOSITY-DRIVEN LEARNING SPACES

In conclusion, this article has explored the transformative potential of Learning Management Systems as modern-day "Wunderkammers," digital spaces that foster curiosity, exploration, and active engagement. Just as Renaissance collectors curated environments to inspire intellectual discovery, educators have the opportunity to design LMS platforms that encourage independent exploration and intellectual growth. The potential of LMS platforms extends far beyond their technical function as tools for managing content; they can become dynamic environments that reflect the educator's vision and invite students to engage with the material in deeper, more meaningful ways.

The shift from viewing LMS as static repositories to vibrant spaces for intellectual exploration requires reimagining how we approach digital education. This transformation is possible through thoughtful curation, creative design, and ongoing faculty development. By embracing the role of digital curators, educators can build LMS environments that encourage students to explore, discover, and form connections—much like the curiosity-driven spaces of the past.

However, this reimagining requires action. Institutions and educators must begin by considering the practical implications of transforming their LMS platforms into curiosity-driven spaces. The first step is fostering a culture of creativity and curiosity in LMS design. Professional development programs should emphasize the potential of LMS platforms as spaces for intellectual engagement and exploration. Faculty onboarding should encourage the creative use of multimedia, open-ended assignments, and interactive forums to enhance student curiosity.

Moreover, institutions can support this transformation by investing in ongoing faculty development opportunities, from workshops on emerging technologies like GenAI to peer learning communities that foster collaboration and innovation. As educators embrace these opportunities and rethink their LMS platforms, the potential for these digital spaces to inspire wonder and curiosity in students will be realized.

By collectively shifting our perspective, we can unlock the full potential of LMS as digital Wunderkammers—spaces where students gain knowledge but also engage deeply with the learning process, shaping their educational journeys in ways that foster long-term curiosity, critical thinking, and intellectual growth.

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Engaging Wicked Problems

Exhibit design as a pedagogical framework

Erika Balcombe Faculty, Interior Design

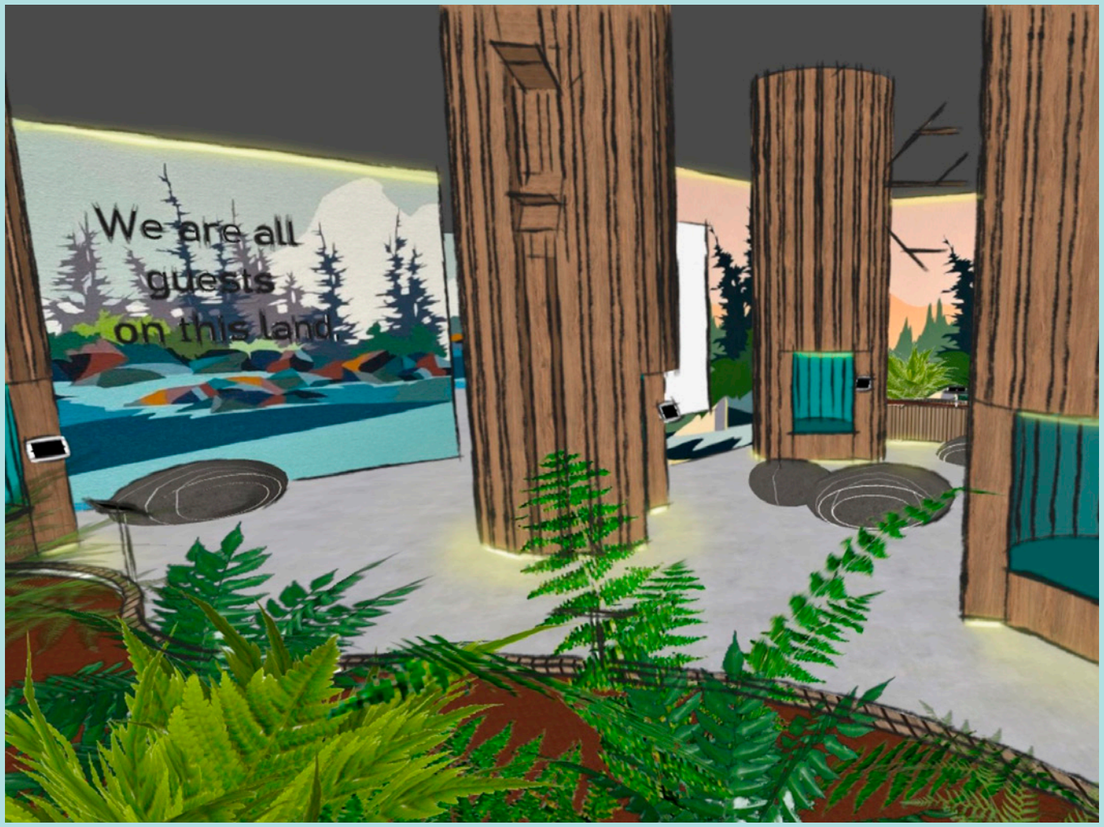
I love field trips. And who wouldn't? It's an afternoon out of class and a chance to explore the world with your mates. The local museum is the quintessential location for educational encounters with culture, history, science, and art. Connecting with artifacts and ideas in immersive environments can enrich understanding of subjects in a way that PowerPoint lectures and YouTube playlists alone cannot. From kindergarten to grad school, the exhibition remains a vital instructional resource for educators.

In design studios, shifting learning *from* exhibitions to learning *through* exhibition making is an opportunity to move beyond observation toward the act of creating. Design plays a crucial role in turning complex information and static objects into aesthetic experiences—as a multidisciplinary practice, exhibit making bridges multiple fields such as spatial design, visual communication, industrial design, interaction design, and storytelling.

For the past two years, we have made exhibition design the focus of the fourth-year studio project in the Bachelor of Interior Design program. In collaboration with Science World, we challenge students to design innovative exhibits on climate change for a school-aged audience. The goal is to communicate difficult topics while sparking curiosity and engagement through a message of hope. The brief asks students to consider zoning, layout, narrative paths, volume design, acoustics, materials, colour, lighting, sensory elements, millwork, signage, didactics, and the integration of new media. Guided by Science World's design team, students create interactive exhibits with hands-on activities, using spatial design strategies and storytelling to enhance learning. The design of an exhibition is not merely a backdrop for content but a critical component that shapes the knowledge produced and the experience of visitors.

Confronting wicked problems through the lens of design can challenge students to think critically and creatively, pushing them to explore interdisciplinary solutions that integrate diverse perspectives. This prepares them to tackle real-world issues they will confront as future designers. This sentiment was also true when developing WSD's multidisciplinary, virtual exhibit, *Viral Design: a reflection on the role of design amid (and beyond) a global pandemic* (2021). The pandemic was an isolating experience, with social distancing disrupting creative synergies IRL. *Viral Design* was a way to bring students together, offering a shared space to reflect, create, and engage with one another despite physical separation. This initiative united WSD's diverse programs in a meaningful collaboration, inviting submissions from each discipline. By curating student work under a single theme, the exhibition demonstrated a cohesive, multidisciplinary approach to design while fostering a sense of connection among those who had spent much of their education apart. The digital platform provided a forum to approach the pandemic with whimsy and optimism. By reframing it as an occasion to rethink design's role in uncertain times, students were able to apply design thinking to a crisis that deeply impacted their lives and find creative ways to reflect on a difficult experience.

Teaching through exhibition not only provides students with applied opportunities to develop technical competencies and design communication skills but also fosters literacy in real-world problems using imagination.



Jeremy Collins, "Roots and Resilience"

Roots and Resilience

Jeremy Collins Student, Interior Design

How might we design an exhibition space that highlights the vital relationship between local Indigenous communities and the West Coast land they call home, while exploring the impacts of climate change on their lives and traditions?

Rotating screens with images of local Indigenous peoples and information on the other side.

Participating in traditional carving with elders and experienced carvers preserves cultural knowledge and builds mutual respect.

SOLUTIONS

// Dynamic Interactive Learning
// Incorporation of Indigenous Culture
// Immersive User Experience

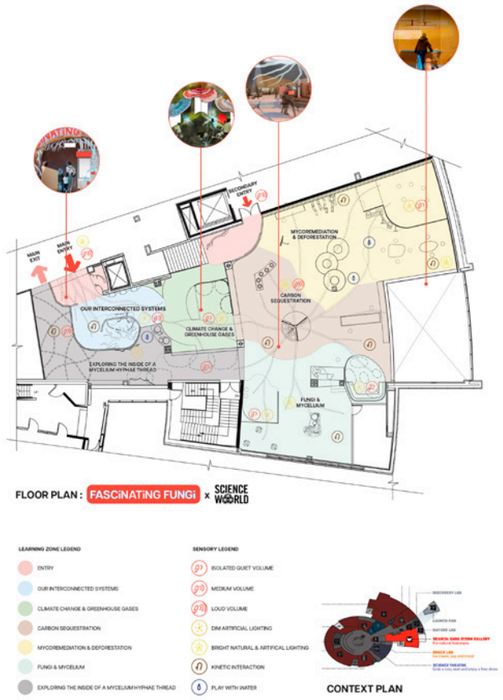
An audio tree pod forest where users can listen to stories and facts about the West Coast forest from local Indigenous communities.

Local native plants with touchscreen information on each plant.

Fascinating Fungi : Explore the Underground Internet

A climate change exhibit at Science World

Andrea Leung Student, Interior Design



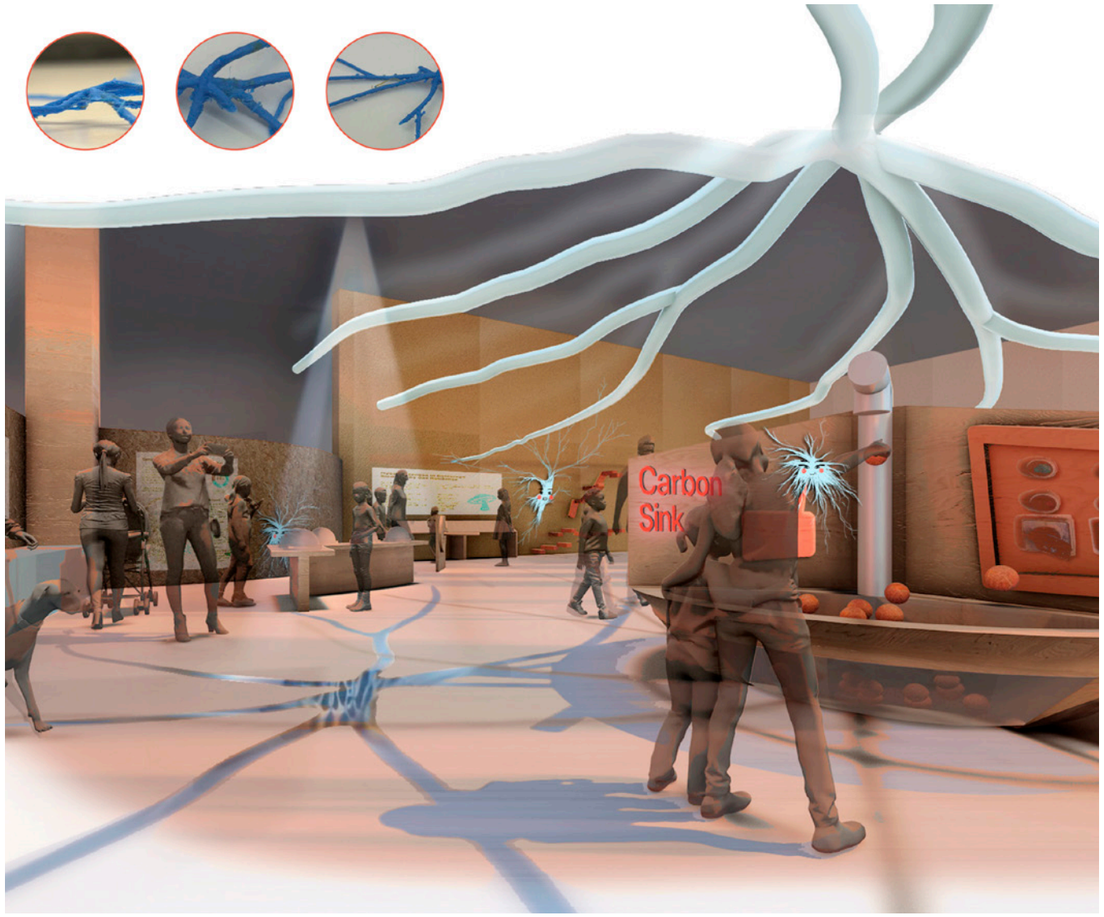
IN PARTNERSHIP WITH SCIENCE WORLD, this hypothetical exhibit on climate change focuses on the role mycelium and fungi play as the climate changes. The challenge was to uncover how design plays a role in teaching and learning for an audience such as intergenerational families, teenagers, and elementary school groups. The exhibit features mycelium and fungi blown out of proportion as visitors see the interconnected world mycelium creates—making connections that parallel ideas we see in our ecosystems. By using regenerative, low-carbon, and local materials, this project demonstrates sustainable building practices for spaces meant to be replaced in 10 years, offering visitors a holistic view from micro to macro.

EXHIBIT ENTRY ELEVATION & INTRODUCTORY PANEL

3D printed character ambassadors in the form of hyphae are introduced with a written introductory panel guiding visitors throughout. As a connected whole, the characters fuse to become a mycelium network that radiates throughout the exhibit space.

PERSPECTIVE RENDER OF CARBON SEQUESTRATION ZONE

This render highlights the Carbon Sequestration Zone with a view of the Mycorestoration & Deforestation Zone beyond, showcasing material innovation and a kit-of-parts approach. The 3D printed mycelium-based ceiling is made from modular components, which can be easily reassembled in different exhibit spaces locally or globally.



FLOOR PLAN & SPATIAL SOLUTIONS

A multi-modal embodied pedagogy allows those of all ages, and neuro abilities to engage. Different sensory stimulation and learning styles are distributed throughout. Various layers of information design, ergonomics, semiotics, and graphic design have been taken into consideration alongside spatial solutions.

measures

The Ekland Residence

A comfortable space for a young child with autism

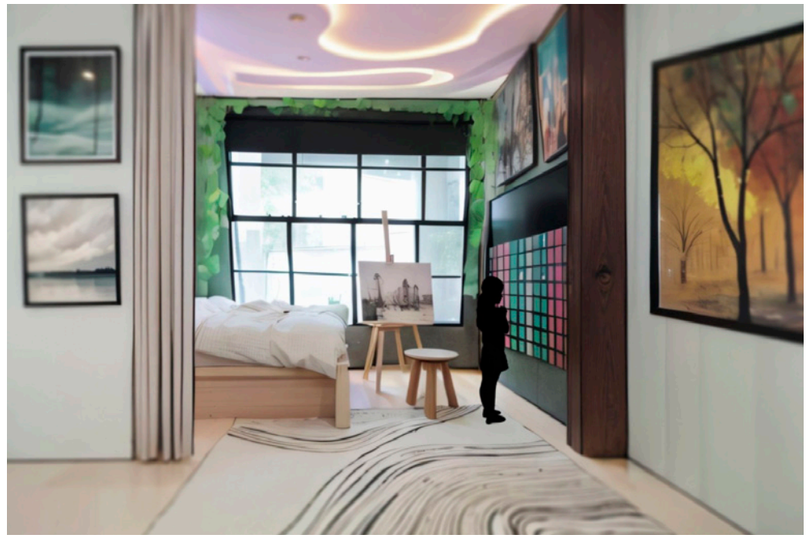
Erika Goguen

Student, Interior Design

FOR THIS PROJECT, I chose a 2-story loft unit design and created a space to fit my client's needs.

My client was a family of three: a single father, a 10-year-old boy, and a 7-year-old girl who immigrated from Sweden after their mother's tragic passing. The daughter (Agnes) was diagnosed with autism with various sensitivities, and her father wanted to give her an environment where she could reach her full potential here in Canada.

By incorporating strategies like multisensory stimulation, comforting retreat spaces, and flexibility and adaptability to their home, Agnes is able to feel at peace and not let anything get in her way of learning and living a happy life with her family. Informed by heavy research, their new loft space allows for everything that Agnes needs to have full control over her environment so as not to get overstimulated.



Two Worlds' Palliative Care Handbook

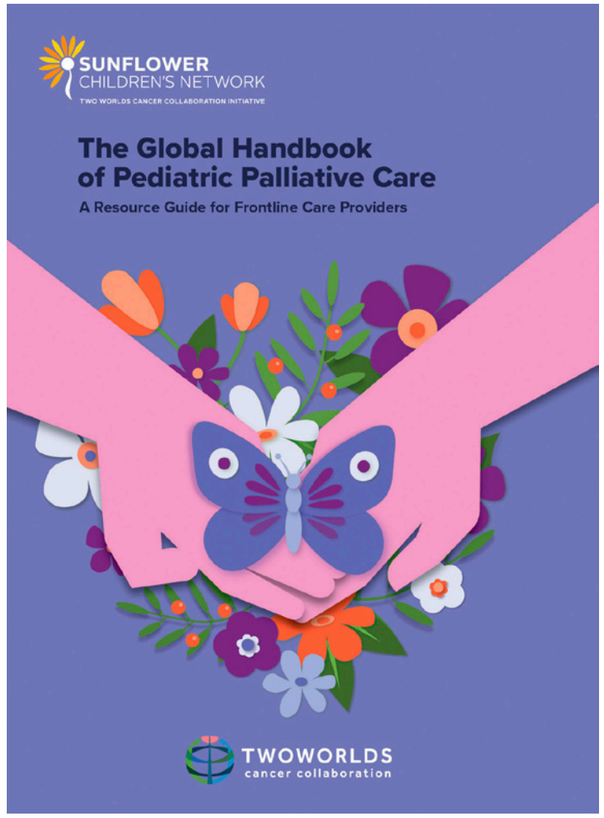
John Belisle Faculty, Graphic Design for Marketing

Designer and educator John Belisle has worked with Two Worlds Cancer Collaboration for close to twenty years. A non-profit striving to reduce the burden of cancer and other life-limiting illnesses in resource-constrained countries, Two Worlds provides education and mentorship for healthcare providers, as well as developing accessible healthcare programs.

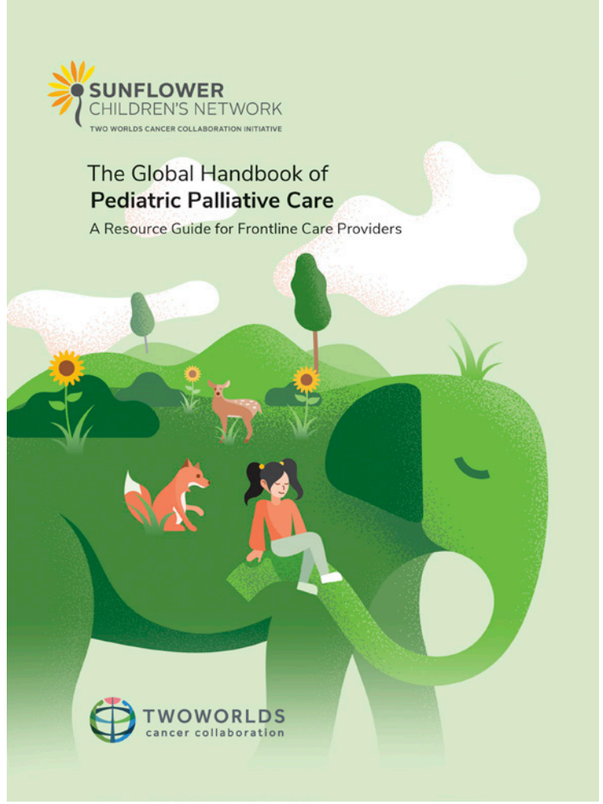
MY SECOND-YEAR Editorial Design class worked to design a cover and illustration for a global palliative care handbook—specifically to help care providers as a resource for children's palliative care. It was a great opportunity for Graphic Design for Marketing students to gain practical experience by working on a real project with real-world implications. The cover design created by student Sarah Nelson will be seen globally by palliative health care providers. In addition, Aman Salimpuri's illustration will be featured in Two Worlds' spring campaign.

Working on a project related to palliative care helped the students develop a deeper understanding of the emotional and psychological aspects of end-of-life care, and the role communication has in telling that story for Two Worlds (twoworldscancer.ca).

SARAH NELSON, 2024



AMAN SALIMPURI, 2024



Wilson School of Design faculty member Stephanie Phillips is the Sherman Jen Research Chair in Next-Generation Design. Her project works to create a T-shirt entirely made from natural fibers found in BC.

NeoNu

Supporting families of premature babies in South Africa

Klara Joubert

SRIG

Student, Product Design

NEONU IS AN APP supporting South African families with premature babies. It helps parents screen for warning signs like poor growth and infection after their babies are discharged from hospital. The system flags concerns, alerting families and health-care workers to ensure follow-up care and improved neonatal health outcomes.

A Garment That Cares When You Can't

Innovative apparel design for menopausal women with limited mobility

Cinu George

SRIG

Student, Technical Apparel Design

FIDATTI WAS BORN OUT of a simple question: What does comfort look like for a woman who can't get out of bed, and is going through menopause? From there, everything became intentional. I sourced milk fabric for its softness, moisture-wicking, and skin-healing amino acids. I used super-soft Velcro and Mushro Grip closures, carefully placed to avoid pressure points and reduce caregiver effort.

The design was co-created with caregivers, interviewed with women, and tested with multiple simulated users to validate ease of dressing, temperature comfort, and range of motion. Based on user input, I analyzed dressing times, listened to feedback, and redesigned every detail—from the cape-style back to the flared hem. *Fidatti* isn't just a garment. It's a wearable response to vulnerability—created with empathy, tested with care, and designed to restore dignity when needed.

moves

Temperature-Regulating Jacket for High Cardio Winter Sport

Peter An

SRIG

Student, Technical Apparel Design

ADAPTABLE LIGHTWEIGHT JACKETS that regulate temperature for the user when doing long hours and high cardio activities in changing winter climates.

Enhancing Upper Limb Protection for Male Goalball Athletes

Jaria Roy

SRIG

Student, Technical Apparel Design

THIS CAPSTONE PROJECT focuses on designing a specialized upper limb protective base layer for male Goalball athletes—a visually impaired para-sport community vulnerable to frequent elbow, wrist, and hand injuries. Current protective gear is often repurposed from other sports and fails to meet Goalball's unique demands.

Using a user-centred design approach, the project incorporated athlete interviews, movement analysis, and material testing to develop a garment integrating lightweight, flexible padding (EVA foam and D3O), breathable textiles, a ball-support gripper at the inner forearm, and a wrist adjustor for added wrist support.

Iterative prototyping and user testing validated the design's effectiveness in comfort, mobility, and impact protection without disrupting auditory gameplay. The final product aims to reduce upper limb injuries while maintaining performance and compliance with sport-specific regulations.

Travel EDC Anti-Theft Bag

A safe, easy, and lightweight travel bag for quick storage and accessibility

Jacky Chung

SRIG

Student, Product Design

THE BAG IS MADE with strong cut-resistant materials and features an RFID pocket and locking zippers.

It can be used in different situations, including plane travel, sightseeing and exploring, as well as for daily use. It is designed with an expandable feature that can be opened for additional storage and closed for a more compact size for travel.

Herbal Infused Seamless Gym Wear

To promote skin health and wellness

Shilpa Hilarious

SRIG

Student, Technical Apparel Design

THE FINAL PROTOTYPE is a seamless, body-hugging gymwear capsule that tackles heat rash and skin irritation at its source. Each garment is knitted from recycled nylon yarns pre-loaded with micro-encapsulated botanicals—neem, mint, aloe, lavender, and chitosan—that release antimicrobial, soothing and cooling benefits wash after wash. Strategic vent meshes and a second-skin fit keep you dry and unrestricted through HIIT, yoga, and strength sessions, while fully circular construction and plant-based chemistry slash the environmental footprint. The result is performance wear that feels like therapy for your skin and peace of mind for the planet.

Lunavi Spring/ Summer 2026 Collection

Supportive, performance-driven activewear for women in menopause

Emma Wu

SRIG

Student, Fashion & Technology

LUNAVI IS A LOW-TO-MEDIUM impact activewear line designed specifically for women in menopause. Despite its significant impact on women's physiological and mental health, menopause remains an overlooked consideration in the apparel industry. This research aims to fill that gap by exploring how intentional design can enhance comfort and performance without compromising aesthetics, empowering women to embrace an active lifestyle and support their overall well-being. Prioritizing fit and comfort, key features include technical fabrics, strategic mesh panelling for ventilation, and leakproof protection—enhancing versatility and ease of movement. The name *Lunavi* is derived from the Latin words luna (moon) and vitae (life), reflecting the moon's connection to life's cycles and the vitality of new beginnings. Inspired by these themes, *Lunavi* embodies renewal and strength, inspiring confidence and movement through every transition.

Innovative Heels for Senior Women in Social Gatherings

Angie Wu

SRIG

Student, Product Design

THIS CAPSTONE PROJECT was inspired by a personal story—my mother, who, like all women, deserves comfortable, stylish heels for social gatherings. The design explores how biomimicry, specifically the fat structure in cat paws, can influence supportive footwear design. Using 3D printing technology with TPU filament, I developed a bouncy, cushioned heel structure to enhance comfort. The project involved a survey to gather insights from potential users and multiple user tests to refine the design. The final concept prioritizes both comfort and aesthetics, aiming to empower senior women to confidently enjoy social events without foot pain.

Mega Patches

Extending the lifecycle of skateboarding shoes

Daniel Maré

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MEGA PATCHES IS A DESIGN INTERVENTION aimed at extending the lifespan of skateboarding footwear through the development of durable, easy-to-apply reinforcement patches. Rooted in material research and user feedback, the project responds to the rapid wear-and-tear experienced by skaters and the environmental waste caused by frequently discarded shoes. The patches are made from high-performance materials like Dyneema® and use a pressure-sensitive adhesive that allows for intuitive, tool-free application. Designed to blend with the aesthetic of skate culture while addressing performance needs, *Mega Patches* offer a repair-first solution that reduces waste and increases product longevity. The project is informed by expert interviews, material testing, and community engagement, resulting in a product that bridges sustainability with functionality. *Mega Patches* is not just a product, it's a shift in mindset toward repairing over replacing, enabling skaters to keep their favourite shoes in rotation longer while minimizing environmental impact.

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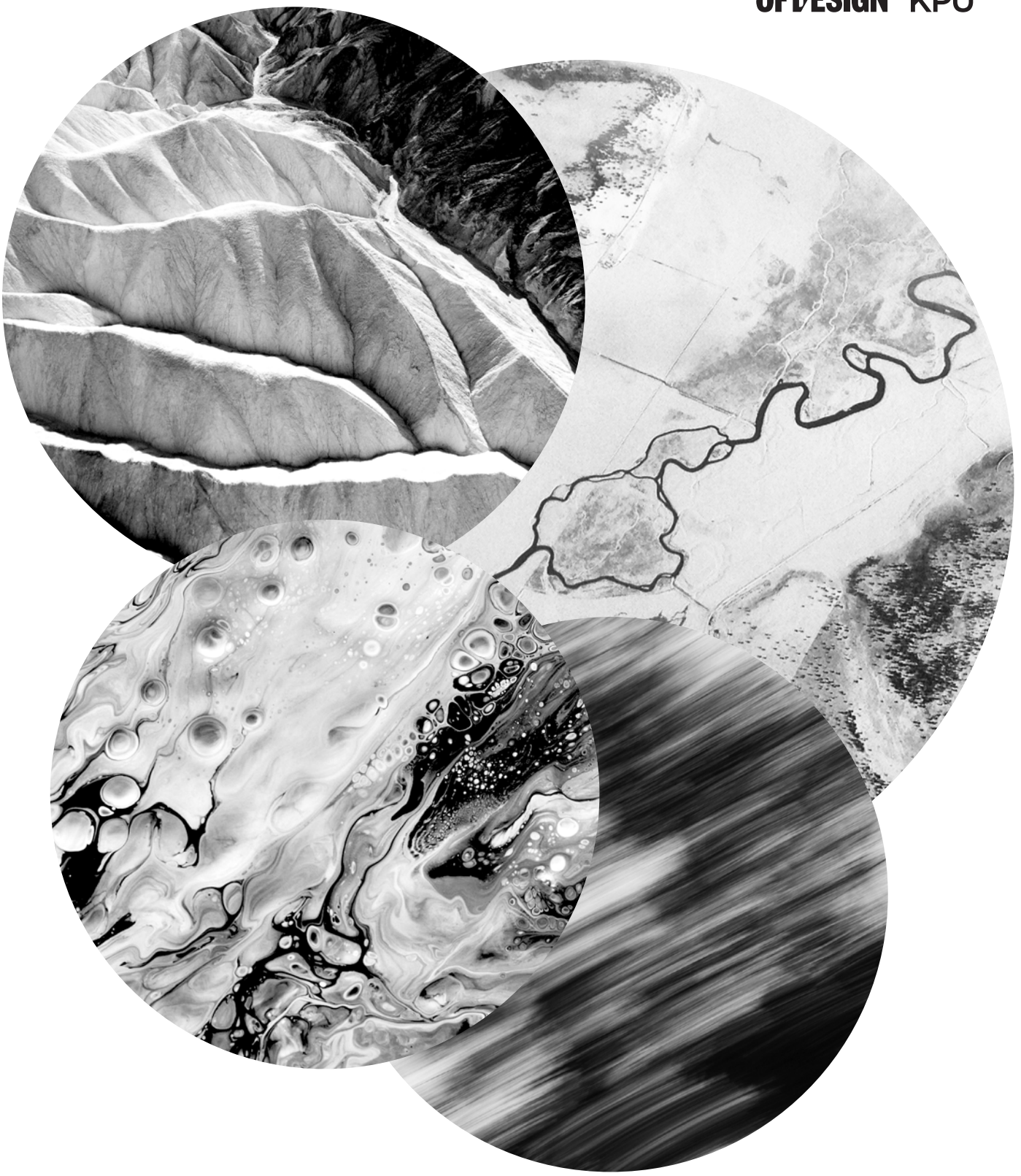

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