DÉRIVE

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DÉRIVE: SPACES AND RELATIONS

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FROM TIME TO TIME, a group coalesces into a collective that transcends received models of learning and becomes at least for a moment a mutually supportive group of intellectual companions. The papers collected in this inaugural issue of *Dérive, An Interdisciplinary Graduate Journal* celebrates the emergence of ideas, voices, and conversations—a symposium in the fullest sense.

Dérive is the practice of "drifting" adopted by the Situationists, a 1950s French avantgarde group, led by Guy Debord. *Dérive* is a practice of urban exploration and serendipitous discovery. Drifting with the current, floating along, going with the flow, and more importantly, *diverted* to leeward or towards the lights, bustle and activity of one place or another—"Where will we go tonight?" *Dérive*, then, is a form of urban flâneurie or wandering in which one allows oneself to be diverted by the "solicitations of architecture and one's desires." Substantively without any objective, the *formal* purpose of *dérive* is to find out where one ends up, to know "what will have happened."

As a practice, *dérive* works against the rational logic of the urban plan and modernist forms of everyday life: that cultural 'savoir-faire' which directs us to focus single-mindedly on our own business as we move about the city. The Situationists were heavily influenced by Henri Lefebvre's 1946 *Critique de la Vie Quotidienne* in seeking a political art anchored in practices that would radicalize everyday life. They proposed an experimental city of different districts which would correspond to the "diverse feelings that one encounters by chance in everyday life." Inhabitants would spend their days in a continuous dérive, drifting through the quarters of the city as emotion and desire pulled them here and there.

Dérive is a form of serious play, which destabilizes the dualisms of formal and informal, work and play, rational concept and emotional affect. In this spirit, although any seminar marches through a formal programme or curriculum, the diagonal path of participants' explorations is of the essence of intellectual development and the creativity inspired by the demands of interacting with intelligent colleagues. As a term and as a title, *Dérive* captures a sense of both this current, of the rhythm of change over time and of the movement and flow between different interests and topics. The papers range from the micro to the macro, from cases to methods. They include studies of relics and left-overs remaining in the urban environment, the role and status of art exhibition areas created in historic or industrial sites, to studies of attempts to represent Indigenous values on infrastructure and in "blue space" waterfronts, to "winter cities" as overarching visions, and to resilient systems design as a problem-solving framework. We celebrate the diversity of this creativity both for its analytic insight and its reach that signals nascent waves of change in the ecosystem of research.

EXPERIMENTAL PUBLISHING

This journal is an experiment in prototyping relatively fast-turn-around, blind peer reviewed publication at the graduate student level. As the first issue of the journal, it is offered as a model for further issues. The instructor, Prof. Rob Shields' experience in founding and journal-editing over 26 years was the basis for the idea of an alternative to the current slow pace of backlogged academic journals. Intellectual thought is too important to be left to the control of multi-billion dollar corporations and enormous international academic societies. Nor can the novel thought and investigation shown by articles such as in this volume be allowed to be subject to the snobbery of established titles, which truly speaking are hardly venerable. Almost all are by-products of the 20th century expansion of higher education. Younger academics need publications and students deserve projects that are completed in a time-frame of months rather than years. After course work papers appeared to be of publishable quality, a call was issued for students to submit further revised papers for publication. A process of self-organization followed. To give them the best chance, these papers were then actively reviewed by a peer group of fellow-contributors. After another round of revision and preparation, the papers were submitted to the instructor to be sent out for blind peer reviewing by academic colleagues with experience in each papers' subject matter. The often critical response of this broader set of readers prompted further revision, introspection and focusing of papers. Via this process of revision, no papers were rejected but revised until ready for public academic consumption. I believe the result speaks for itself. *Dérive* will be laid out to be published in both digital and paper format. A launch party at the Fine Arts Gallery at the University of Alberta will announce and extend the impact of the journal.

NEW PATHS, NEW DIRECTIONS

In no particular order, Alperen Cevirme offers a significant knowledge translation of the Japanese literary-urban explorers' passion for "Thomassons" to the broader cultural and social theory. These are non-functioning bits of previous urban fabric that remain visible but are anomalous rather than nostalgic, which is to say that they are not recovered and integrated into any organized narrative of heritage or history. They have what Serre's calls a "parasitical" relation to the urban environment, but more specifically these are *spatial parasites* that operate not only discursively or abstractly, but concretely and relationally through their materials and location. Any culture of reuse and recycling must eventually deal with the role of Thomasson's as meaning-resources which concretize and fuel minor understandings and practices.

Justine Kohleal compares post-industrial sites transformed into contemporary art and cultural festival "zones" including Beijing's 798 Art Zone and Venice's Arsenale dockyard, which now hosts the Venice Biennale art fair. As these move from industrial to exhibition spaces, the history of factories shifts from material to cultural production. Kohleal's paper explores the "factory logics" that underpin this transformation, questioning whether such spaces provide the intimate encounters necessary for social and spatial transformation, or if they simply standardize such experiences in a way that echoes the factory assembly line.

Waterfronts may also depart from the purely functional and productive interests of much planning. Riverfronts, beaches and lakesides are open spaces, "free zones" for the development of leisure, marginalized activities and contemplation. Emily Quecke examines a new bridge project and its symbolic Indigenous ornamentation to ask, can such places serve as sites and landscapes that advance decolonial agendas and even reconciliation with Indigenous cultures? Indeed, many waterfronts are redolent with sedimented human history as water arteries were a means of travel, meeting places, and rich ecological transition zones crucial to survival. Exploratory methods related to dérive are a prominent aspect of these papers.

Danielle Soneff considers the status of the "winter city" as a planning vision to guide policy in cities in high latitudes. These locations feature distinct seasons that are often ignored, along with many ecological issues, in urban planning. Seasonal activities and recreation opportunities are not only an aspect of the intangible brands of these cities but need to be better integrated into the material culture of the cities themselves. Rebalancing the material and virtual aspects of these cities inevitably affects their social spatializations: in other words, not just how they are understood but how they are lived.

In a related vein, Genan Hamad argues for the importance of integrating resilience into systems thinking approaches and design. For too long, resilience has focused on the technical aspects of urban environments and systems without incorporating human and social systems. Resilience has been left to one side as a property not of the systems but of the strength of externalities and challenging features in the environment of a given process, organization, plan of city. This theoretical shift is reflected in an agenda for further methodological changes in approaches to problem-recognition and solving, organizational management and policy making.

VIRTUALITIES AND SOCIAL SPATIALIZATIONS

Reflecting the origins of this issue in a sociology seminar on cities and suburbia, spacing and placing has a unifying status across the papers. Drawing critically on Lefebvre's work on the production of space and the more recent development of theories of social spatialization, the papers consider the cultural definition of places and the geopolitical division of activities across this socio-cultural landscape. From this legacy, the papers featured in *Dérive*'s inaugural issue offer innovative proposals for decolonial and feminist spatial analysis. For example, they draw in Maria Lugones' insights on the engagement between bodies and place, the enacted, intimate and performative character of spatialization, and the importance of differential space-making and insurgent worlding. Across a number of papers, pedestrian practices of urban exploration, dérive, and site-visits integrate temporal experience with spatiality to dialectically explore the success and failings of both informal and official "world-making" through planning and infrastructure projects.

The role of intangibles is also significant in these papers: subjects are doubled as bodies and financial data identities, spaces are not only actual or symbolic representations (such as in a room and on a map, respectively), they are framing stage sets for perceptions of reality and ongoing action—spaces of representation (as Lefebvre calls them) that are fully active cultural formations. They are real, but not tangible. They are virtualities known through their effects and affects. This allows some of the papers to assess the success or failure of architecture and planning from a commanding position beyond merely functional or stylistic questions. These papers integrate observation of tangibles with the study of relations and intangible elements such as brands, frameworks, and cultural forms to analyze embodiments and practices. ■

THOMASSONS

AS SPATIAL PARASITES

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ABSTRACT: Introduced by Akasegawa Genpei in the late 20th century, the term *Thomasson* refers to a collection of defunct urban relics that retain their physical form despite losing their functional utility. The persistent survival of Thomassons within an urban milieu where entities are appraised based on their functional relevance to the cycles of production and consumption presents various opportunities of resistance for the urbanite. Upon identifying Thomassons and their non-functionality, the urbanite's pre-existing asymmetrical relationship with consumer capitalism and consequently, its value system is parasitised by the image of Thomasson. In this context, Thomasson acts on the urbanite, establishing itself as an epistemological reference point within the urbanite's psyche where both previously categorized and interpreted aspects of urban everyday life and those yet to be encountered are reinterpreted. By analyzing Akasegawa's manifesto on non-functionality within the urban landscape, this paper aims to explore the tripartite relationship between Thomassons, urbanites and the prevalent culture of consumer capitalism.

KEYWORDS: THOMASSON, CONSUMER CAPITALISM, EVERYDAY LIFE, PARASITE, RESISTANCE, MICHEL SERRES, URBANITE.

THOMASSONS AS SPATIAL PARASITES

Alperen Cevirme

AMONG THE MYRIAD OF INQUIRIES, that have troubled the theorisation of urban everyday life, the socio-cultural value of what can be called the urban relic constitutes one of the most neglected subject areas. Whether it is defined as "waste" (Hawkins, 2003, p. ix) or "ruin" (Edensor, 2005, p. 4), a significant number of academics scrutinized the anatomy of urban decay and ruination while positioning them in a broader historical context. Nevertheless, the subject matter of these scrutinies is predominantly focused on derelict buildings and ruins. From "closed shopping malls and abandoned military sites" (Olsen et al., 2014, p. 3) to pre-industrial urban centers such as Ephesus and Machu Picchu, the theorisation of urban decay tends to give greater attention to derelict spaces that already hold historical value. However, as Edensor (2005) claims, urban decay and its adverse impacts on the urban fabric "do not take one shape but are manifold in form" (p. 4). Blocked-up windows, defunct street lamps and unidirectional staircases that only go up and down—each could be equally considered as manifestations of urban decay due to the comparable degree of neglect in their material conditions and their corresponding non-functionality for the urban population (see Figure 1 and 2).

Undoubtedly, one of the most comprehensive attempts of theorisation on such smaller instances of urban decay was conducted by Akasegawa Genpei in the late 20th century. Initially gaining recognition by showcasing his works at the *Yomiuri Indépendant* Exhibition (Daniell, 2012, p. 60), Akasegawa's name gradually became popular among the public. Despite his active involvement in various anti-establishment collectives, such as Neo-Dada Organizers who vehemently opposed "all the art institutions and trends that had come before" (Kapur, 2018, p. 196), it was only in 1970 that he emerged as one of the key theoretical architects of a relatively popularized collective. Mainly led by Akasegawa himself, a group of academics and artists thrived under the name of Street Observation Studies Society (Sand, 2013, p. 88) to identify—what the group sardonically named *Thomasson*[1]—a set of non-functional relics and objects scattered around the streets of Tokyo. In his book *Hyperart: Thomasson*, Akasegawa (2010) defines Thomasson as: "defunct and useless objects that [have lost their intended function but] are aesthetically maintained" (p. 17). Door knobs on plastered walls, unidentifiable objects that are immersed into concrete and useless bridges that have lost their purposes over time are just a few examples of the forms that Thomasson could take. Defunct as they are, what truly defines these relics is their structure, which retains its corporeal form while completely stripped of any function or purpose. Nevertheless, the inherent non-functionality of Thomassons imparts them with a new set of values. The juxtaposition of these "non-functional" relics to an urban landscape characterized by an unceasing cycle of production and consumption offers numerous avenues of resistance for urbanites against the dominant discourse of production. The discourse in question, which is informed heavily by market-oriented production systems, gradually extends its sphere of influence over everyday life such that it "no longer leaves 'consumers' any place that they can indicate what they make or do with the products of these systems" (De Certeau, 2011, p. xii). This phenomenon confines urbanites into a single category of consumers who consume without much authority over their consumptive choices. Nonetheless, the poignantly contradictory quality of Thomassons holds the potential to intercede in the mundane flow of the everyday lives of urbanites.

One of the ways in which Thomassons reach their potential for resistance is by recognising their discursive value as the material embodiment of escape from the final phase of consumer capitalism. Despite the anticipation that the principles of "creative destruction" (as intended by Schumpeter, 2010, p. 73) will be in effect for the dismantlement of defunct products to facilitate the creation of new ones, Thomassons persistently reject the capitalist impulse to dissolve into oblivion "as if sealing itself away for all eternity" (Akasegawa, 2010, p. 42). This refusal serves as a period of cocooning until their potential discovery by Street Observationists. The mode of discovering Thomassons, specifically through means that include taking unplanned expeditions through random streets and abandoned areas, is not necessarily performed to identify Thomassons as cultural artifacts; rather, it signifies an active process of resistance against the banal experience of everyday life. Taking on a journey to explore the depths of the city's unconscious (Sand, 2013, p. 96) allows urbanites to break free from the consumption-driven economy of social practices where the principles of production, distribution and eventual consumption of products govern the movement of urbanites.

Given that urbanites are integral components of production and consumption systems, it is crucial to identify and document non-functional elements that can be employed against the system. This identification and, subsequently, documentation of defunct elements, such as Thomassons, function as a discursive stimulus, leading the Observationist toward a new state of spatial awareness—an idea expressed by Terunobu Fujimori, a notable figure in the Street Observation Society, as the "awakening of eyeballs" (as cited in Sand, 2013, p. 96). Upon its recognition, the image of Thomasson reinstitutes itself in the Observationist's unconscious. Within this understanding, the ontological reality of Thomasson bifurcates into two distinct branches. First and foremost, Thomasson continues to exist materially as a spatial irregularity, nestled within the depths of the city's psyche. Concurrently, the fortuitous identification of Thomassons by Observationists results in Thomassons being reproduced as mental images within the Observationists' psyches. In these two interconnected ontological representations of Thomassons, a shared characteristic emerges: Thomassons exist not merely as spatial anomalies that fail to integrate into the broader spatial environment, but also as a form of mental irregularity, where their image stands out within the preconceived and internalized aspects of urban reality. This ontological bifurcation propels Thomassons into an intermediary state of existence, occupying neither the urban nor the cognitive space but the "space between mind and metropolis." (Akasegawa, 2013, p. 3) Most notably, I would like to argue that the cognitive reproduction of Thomassons functions as a subversive force to the epistemological process of the mind, impacting the interpretation of both previously observed aspects of the urban landscape and those yet to be encountered. The governing logic of this subversive filter derives from the enigmatic nature of Thomassons, which causes a contradiction to the operating logic of the capitalist value system. As Akasegawa (2009) argues, "Capitalism doesn't allow for this sort of uneconomical things [to persist]. Everything in our capitalist society has to have a purpose." (p. 6). In the absence of a dis-

1. Contrary to what might be assumed, the term "Thomasson" neither has its roots in the Japanese language nor was originally coined by Akasegawa. Exemplifying Akasegawa's sardonic tone, the official term for what he defines as "wispy images of urban ghosts" is a reference to Gary Thomasson, a professional baseball player who after his transfer to Yomiuri Giants spent an entire season "on the bench" (Akasegawa, 2009, p. 2). Gary Thomasson, much like Akasegawa's objects of inquiry, had a "fully-formed body and yet served no purpose to the world" (Akasegawa, 2009, p. 17).

FIGURE 1: Example of a 'useless' staircase, Sakura, Japan. From "トマソン", by heriheri, 2015, Panoramio, https://commons.wikimedia.org/wiki/File:%E3%83%88%E3%83%9E%E3%82%BD%E3%83%B3_-_panoramio.jpg. CC-BY-3.0

cernible purpose for the systems of production and consumption, entities lack a stable positionality and face the danger of replacement or obliteration. However, in the case of Thomassons, as devoid of economic value as they may be, they still survive which not only gives rise to an ideological conflict within consumer capitalism but also affects a mental process, comparable to cognitive dissonance for the urbanite. The paradox posited here could be expressed through the following inquiries: Should Thomasson persist, what significance might it hold for consumer capitalism? If Thomasson is obsolete and consequently devoid of value, what justifies its continued presence?

As a result, the paradoxical image of Thomasson causes a fracture within the totality of the dominant discourse, wherein the value of each entity—be it an individual or a concrete structure—is contingent upon its capacity to satisfy the demands of consumer capitalism. As valueless as it may appear, Thomasson presents a fleeting glimpse of an alternative form of existence within an urban landscape where everything is fixated to maximize the efficiency of the production and consumption cycles.

Before examining the disruption caused by Thomassons in the asymmetrical relationship between consumer capitalism and the urbanite, it is essential to understand how Thomassons reach their disruptive potential. Furthermore, it is important to underscore that Street Observationists' method of resistance shares a degree of likeness with the practices of Situationist International. For Debord (2007) and Situationist International, urbanites themselves who engage in a "playful-constructive behavior" (Debord, p. 62) while taking spontaneous journeys in the urban landscape serve as the very source of resistance. Observationists, on the other hand, tend to locate the source of resistance within the urban relic they seek. Jordan Sand (2013) elucidates this distinction by contending that in *dérive*, "the walker did the deviating, whereas the Observationist treated the object as deviant and took the position of discoverer." (p. 98). In other words, unlike the theoretical framework posited by Situationist International, wherein the resistance is ontologically bound to the urbanite, Akasegawa and Observationists emphasize Thomassons, which hold the potential to act on the urbanite and disrupt the urbanite's relation to consumer capitalism.

Nevertheless, Sand's understanding of Street Observationists, whose sole task is to discover Thomassons, falls short in explaining the creative process involved in documenting these relics. Following the identification of a prospective Thomasson, Observationists are encouraged to fill out a "Hyperart Thomasson Report Sheet." (Akasegawa, 2009, p. 403) This sheet not only seeks information about the physical characteristics of the identified relic but also compels the observer to construct a narrative for the Thomasson. While fabricating a subjective history of the relic, the "imagination begins to run away with it" (Akasegawa, 2009, p. 33), and the Observationist devises a somewhat realistic and somewhat fictional theory about the previous functions of the Thomasson in question. In this context, it would be inaccurate to diminish the role of Observationists to that of a mere "discoverer" and attribute the act of resistance solely to Thomassons. Indeed, Thomassons neither depend on the Observationist nor their creative agency for their existence. Instead, Thomassons emerge by the virtue of consumer capitalism and its limitations in recycling and repurposing these relics for alternative uses. However, actualising Thomassons' disruptive potential requires mediation; therefore, it only occurs when the Observationist engages with these relics on a discursive level. The interaction between Thomasson and the Observationist serves as a conduit for channeling Thomasson's disruptive potential onto the Observationist. The disruptive yet inconspicuous presence of Thomassons ultimately necessitates and utilizes Observationists as vessels, inhabiting their psyches and influencing the mode of interpretation and categorisation of entities. This stands almost as an antidote to the previous influence of the dominant discourse on such interpretive processes of the urbanite's psyche.

While the interaction between Thomassons and Observationists may prompt a dialectical understanding of resistance, wherein both entities mutually transform each other into subjects of destabilization, the asymmetrical nature of their interaction persists. Indeed, the documentation of Thomassons and the corresponding creative process do not contribute to how Thomasson's image parasitizes the Observationist's psyche and disrupts its relation to consumer capitalism. Rather, the creative documentation serves as a means of renegotiating and familiarizing the non-functionality of Thomassons, which arguably renders the Observationist more susceptible as a host for the disruptive image of Thomassons. Upon their creative documentation, Thomassons, deemed worthless by the very discourse that gave birth to them, acquire personal significance for the urbanite, eroding the binary opposition between functionality and non-functionality and, consequently, the boundary between what is valuable and what is not. Urban waste, which is deemed to be "the degree zero of value, or the opposite of value" (Frow, 2003, p. 25), starts to constitute a value under its observer. Its newly gained value constitutes a disruption for the functionalist administration on its own since it directly confronts the assumption that functionality is a precondition of possessing any value. In this context, Thomassons are not only anomalies in and of themselves, but their cognitive reproduction within the urbanite's psyche indicates a long-lasting, parasitic activity of resistance that weakens and destabilizes the urbanite's already existing mode of interpretation and categorisation of entities, as well as the personal value systems informed by the dominant capitalist discourse. The cognitive reproduction of Thomassons allows these relics, despite their ephemeral existence—as they tend to "emerge and evanesce" in "old neighborhoods grating and grinding their way into modern cities" (Akasegawa, 2009, pp. 57-58)—to sustain their disruptive function beyond their physical existence.

FIGURE 2: Example of a 'Sponge Cake' Thomasson: a cuboid protrusion in the middle of a street. From "2 become 1", by Myleen Hollero, 2009, http://myleenhollero.com/. Reprinted with permission.

Serres' discussion of the parasite's physiological capabilities and experiences can be employed to understand the series of asymmetrical relations that form the tripartite relationship between consumer capitalism, Thomasson, and the urbanite. In organic systems, a parasitic (i.e. exploitative) relationship with the host not only "upsets equilibrium, making it deviate" (Serres, 1982, p. 182), but the parasite also gains a spatial potential to intervene and change the space it inhabits. As Serres (1982) argues, "The parasite invents something new. He obtains energy and pays for it in information." (p. 36) In this sense, a parasite represents a multifaceted existence that can form a destructive relationship with the main body while promoting diversity through facilitating pluralities that "create ecological and spatial areas, filled by other species." (Summers et al., 2003, p. 663) In its essence, through the reproduction of Thomasson's image, what the Observationist achieves is nothing more than the reterritorialisation of the urban space long colonized by the market-driven bureaucratic rationality; in other words, the cognitive reproduction of Thomassons acts as an infectious process through which previously conceived and familiarized spaces, objects and bodies undergo a process of destabilization, and subsequently being reclaimed from the influence of the dominant discourse. This enables Observationists to reconstruct these entities based on their subjective convictions instead of adhering to the "intentionally established abstract rules" (Townley, 2008, p. 50) of governance that aim to maximize financial gain and administrative effectiveness interminably.

In biological systems, a parasite does not infect the body unexpectedly. A parasite emerges when "food, contaminated with infective eggs" (Cox, 2002, Ascaris and Ascariasis section) enters the body and gradually perverts its organic operating systems (digestive, circulatory), which supposedly function efficiently and without any errors. While the nervous system continuously supplies the body with food to maximize energy intake, parasites within the depths of the digestive system feed on those sources, transforming them from sources of energy to sources of deviation. In the case of Thomassons, the act of 'feeding' is rather an insidious process as Thomassons do not inflict any physical damage to their surroundings but infect them with a similar sense of non-functionality. Akasegawa shares the metaphorics of food and digestion (2009): "The Thomasson— which is like the steak in the middle of a plate— is inherently meaningless, so the parsley and carrots around it get extra emphasis, until they themselves start to seem Thomasson-like and meaningless" (p. 303). Once the meaninglessness of an urban relic is detected and marked as a Thomasson, the illusion of rationality that deems every aspect of the urban milieu as functional gradually disappears. The Observationist who finds and identifies such Thomassons uses the same relics as a reference point to evaluate its surroundings and seek signs of non-functionality in other urban structures.

When the relationship between the city and Thomasson is explained through a body metaphor, one could only expect the urban body to resist such parasitic beings. However, it is a particularly arduous task for the urban body to purge these non-functional relics since the production of these objects is intimately tied to the very operational system that tries to eliminate them in the first place. The profit system, which urges the urban body to operate through a constant value-laden cycle of production and consumption, does not necessarily acknowledge the mode of production in which these non-commodifiable urban relics flourish, nor does it prescribe an alternative operational method to reintroduce them into the production-based cycle. Indeed, Thomassons complete their life cycle only when they start to constitute a spatial problem to the systems of production and, subsequently, "production-obsessed corporations'' that send these objects "from relative to complete obscurity" (Akasegawa, 2009, p. 21) due to real estate speculation. Paradoxically, as much as the profit-based system shows an "appetite for eradication of useless things," the same profit-based system spontaneously prevents the destruction of these non-functional relics due to "the desire to retrench expenses." (Akasegawa, 2010, p. 171) Although Thomassons constitute a constant threat to the legitimacy of the profit-based system through the materialization of unremunerative realities, the demolition of such relics is constantly postponed or ignored by the same system. For Akasegawa (2009), the organization of an administrative system that deals with issues only when they constitute a threat to profit causes another fracture within the system itself as the paradoxical desire to both sustain and destroy Thomassons de-rationalises the system.

The parasitisation of urbanites occurs when the urbanite, or the Observationist, decides to take an unplanned journey in old or dilapidated neighborhoods and seek relics with "plastered over" functionalities (Akasegawa, 2009, p. 15). In most cases, it is a challenging mission for the urbanite to discover these relics, as Thomassons exist within an in-between realm where the "mechanics of awareness and unawareness interpenetrate" (Akasegawa, 2009, p. 41). It is not because the dominant discourse employs specific strategies that deliberately conceal these objects from the urbanite's consciousness, but the urban space is rationalized to such an extremity that unproductive irregularities such as Thomassons remain unrealized. For the urbanite, there is only an "assumed world" where he "does not know, strictly speaking, what he is doing" (De Certeau, 2011, p. 56) or does not actively interrogate the spaces that he strolls in. In one of his early discoveries, Akasegawa (2009) notes that "the whole structure [of the Thomasson] looks so completely comfortable with its weirdness that you almost do not notice its weirdness at all." (p. 63) In this context, the "weirdness" of Thomassons is overlooked or suppressed neither by Thomassons nor the dominant discourse but by the urbanite, who tends to perceive any anomaly as a normative element of the assumed urban space. For the urbanite, the city already occurs as a "jungle of functionalist rationality" (De Certeau, 2011, p. xviii) that does not require any act of interpretation. The city has already been written and read for him, and the only expectation is to follow what has been already followed. As a result, once the urbanite discovers a relic and marks it as a Thomasson, the encounter results in a mixture of shock, confusion, and fear as the illusion of urban functionality is fractured within the urbanite's psyche. As it is repeatedly noted in Akasegawa's (2009) text, the initial confrontation with various forms of Thomassons is described as "disconcerting" (p.72), "menacing" (p.72), "unsettling" (p.11) and "precarious." (p.77) Streets, signs, and buildings that used to be so familiar to the urbanite start to constitute a "space of defamiliarization...serving as an uncanny space amidst a familiar realm." (Edensor, 2005, p. 25)

It is not only the juxtaposition of derelict structures with a functionalist urban landscape but also the dissolution of the promise of rational homogeneity, which assumes that every single aspect of the urban landscape serves a justifiable purpose, that disturbs the psyche of the urbanite. Indeed, as Anthony Vidler (1992) indicates, the uncanny feeling that follows the discovery of Thomasson or any other derelict architectural object is characterized as "the quintessential bourgeois kind of fear," (p.4) suggesting that the initial fear that surrounds the urbanite not only occurs as a result of an external stimulus but also derives from an internalized class-based anxiety, that just like Thomassons, urbanites might lose their purpose within the production-based system.

One example of such confrontation deals with a specific type of Thomasson named *Muyō mado*, or the useless window. As illustrated in Figure 3, the name refers to a form of a window where the outer frame is beautifully preserved, yet it is blocked up by a concrete material to indicate that the object is no longer functional or needed. Upon its discovery, Akasegawa (2009) notes, "Something about the window still had to be solved...A strand of subconscious thought had reached up from the B3 level to point out some important aspect of this ticket window." (p.10) At that very moment of discovery, the useless window does not represent an urban waste that "Happens all the time" (*Ibid*) within the urban milieu but stands out as an enigmatic entity that needs to be solved and unwrapped by the Observationist. The countless transformative possibilities surrounding the useless window allow the Observationist to indulge in a rigorous process of interpretation, gradually "transforming each spatial signifier into something else." (De Certeau, 2011, p. 98) The center of the window where "inside meets outside" (Akasegawa, 2009, p. 11) resembles a "heart" while "the small opening at the bottom" constitutes Thomasson's "half-cracked eye." (Akasegawa, 2009, p. 12) As a result, the defunct window becomes more than just a non-functional portion of the urban body: it comes into life as an independent organism with its own circulatory and perceptive organs. Similar to the process in which Mary Shelley's Modern Prometheus creates a monster by stitching "together already-present constituent parts to manufacture a new-being"

FIGURE 3: Example of a Defunct Window, Uppingham, UK. From "Window Tax Maybe?," by Kate Jewell, 2005, Geograph Project https://www.geograph.org.uk/photo/45159. CC BY-SA 2.0

(Zukas, 2020, p. 747), the Observationist, who becomes parasitised by the Thomasson, starts to conceive non-functionality as constituting value for various objectives but significantly, for its capacity to generate an alternative discourse in which the subject can practice relative autonomy over their perceptive and interpretive capabilities.

Within this framework, as Thomasson branches onto the channel where the market-driven discourse informs urbanites on their everyday life practices, the emphasis on the capitalist value system and its insistent projection of functionality and efficiency loses its demarcative nature. In the end, what the Observationist observes is not only a defunct relic but an ontologically adaptable entity which could be used as a reference point to transform urbanites into "local authorities" who "saturate places with signification" that would eventually "compromise the univocality of the system." (De Certeau, 2011, p. 106) As a result of the urbanite's parasitisation by Thomasson's image, urbanites find themselves in a position where the asymmetrical relationship between the dominant discourse and urbanite remains unaltered but becomes subject to interrogation. ■

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URBAN RESILIENCE TO NATURAL DISASTERS:

A REGENERATIVE DESIGN APPROACH

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ABSTRACT: Although natural disasters could result from natural factors, humans play an important role in reducing their intensity or exacerbating the harmful impacts of these hazardous events on both human and ecological systems. Although human practices and policies influence ecological, cultural, and social urban resilience, contemporary approaches to urban design tend to focus on technical strategies to enhance ecological resilience to natural disasters. Research shows that a resilient design incorporates strategies that aim to improve not only ecological urban resilience but also the cultural and social resilience of the humans who inhabit the place. To mitigate human contributions to natural hazards and improve cultural and social resilience, a systems approach to urban design and development that takes the place (human and natural systems) as a whole system into consideration is needed (Girardet, 2010; Thomson & Newman, 2020). To address this need, the current study analyzes two examples of natural disasters (Hurricane Katrina in New Orleans and Mumbai flood in 2005) to illustrate how human policies and practices could impact urban resilience and show the importance of recognizing social and cultural dimensions in urban design to improve place resilience to natural disasters. The paper also shows how the regenerative approach to urban design made an original synthesis of premises that allows the recognition of the impact of human practices on urban resilience as well as the importance of social and cultural resilience of local communities. The current study implies that policymakers and urban designers need to take cultural and social dimensions into consideration to improve urban resilience to natural disasters.

KEYWORDS: REGENERATIVE DESIGN; RESILIENCE; URBAN; NATURAL DISASTERS; SOCIAL; CULTURAL; HUMAN PRACTICES/POLICIES

URBAN RESILIENCE TO NATURAL DISASTERS: A REGENERATIVE DESIGN APPROACH

Genan Hamad

NATURAL DISASTERS are one of the main problems that severely impact human settlements. Every year, about 180 disastrous events occur around the world (Bevere et al., 2012). Vulnerable communities that lack resilience are the most affected societies by these disasters (Adger, 2000; Gunderson & Holling, 2002). Place resilience to natural disasters can be improved through urban design. While professions focus on the resilience of their technical systems, a systems approach to urban design and development takes the resilience of the place (human and natural systems) as a whole system into consideration.

Although disasters may result from natural factors, humans play an important role in decreasing their intensity or exacerbating the harmful impacts of these hazardous events on both human and ecological systems. Applying system thinking to urban design has the potential to mitigate human contributions to natural hazards and ensure effective human support to urban resilience (Girardet, 2010; Thomson & Newman, 2020).

OBJECTIVES AND METHODS

The purpose of this paper is fourfold. 1) to highlight the need for an urban design approach that supports resilience to natural disasters. 2) to illustrate, through examples, how human behaviour, policies, and practices could decrease or increase urban resilience to natural disasters. 3) to highlight the importance of recognizing social and cultural dimensions in urban design. 4) to explain how the regenerative design approach could support social, cultural, and ecological resilience to natural disasters, by reinforcing healthy and just human practices as well as creating a harmonized human-environment interaction.

In this paper, we follow the lead of Anjaria (2008) who responded to Hurricane Katrina in New Orleans (2005) by making a comparison with flooding in Mumbai (2005). We focus on analyzing these two well-studied examples to understand how human practices, actions and policies in these cities reduced or increased their resilience to natural disasters. The two cities showed clear differences in their response and resilience to the severe flood that hit both places.

THE RELEVANCE OF GENERAL SYSTEMS THEORY TO URBAN DESIGN

Theories such as actor-network theory (ANT) (Jóhannesson & Bærenholdt, 2020), and general systems theory (GST) are equally important for urban design. ANT, however, is not the focus of this paper and it will be discussed in future research. Here, we focus on GST as the paper will show how the regenerative approach used system thinking to make significant contributions to the field of urban development and resilience.

A system is "a set of people, events and ideas that form a coherent whole through a structured pattern of interrelationships among its elements" (McLoughlin & Webster, 1970, p. 110). As argued by Hall (1995), GST views the world as:

> One open system, global in scope, and within which all processes in nature and society are nested subsystems that interact by exchanging resources, building storage, and dissipating energy, matter and information across time and space. In this view, systems relations enable resources to flow between systems at different scales, thus forming a web of exchange where certain organizational patterns have been identified as universal. (p. 73)

According to GST, the whole is different from and "greater than the sum of its parts" and it "cannot be studied as the assemblage of individual entities, with each being examined apart from its larger environment" (McLoughlin & Webster, 1970, p. 112). GST offers interesting insights for urban design because it focuses on processes that provide benefits at various scales and for multiple individual parts simultaneously (Bergquist & Hedfors, 2019, p. 118). Systems theory is highly relevant to urban design since patterns in human settlements could be regarded as "complex dynamically interrelated sets of elements with characteristics of growth and change which may exhibit certain qualities of intrinsic organization" (McLoughlin & Webster, 1970, p. 112). Systems approaches thus resolve problems of scale in research by integrating micro and macro processes. Unlike the "methodological individualism" of many social science approaches that add up individual members until they can generalize statistically across larger populations, GST approaches focus on sets of relations as well as specific members or individual elements. One advantage of GST is that it allows relational and complex problems and their contexts to be operationalized and approached systematically by organizations and groups of organizations -- a need that is currently and urgently required from societies that must plan in the face of climate change and weather emergencies.

Principles of GST are useful for urban design in a regenerative context, in which the design considers the spatial organization of both visible elements or structure (urban morphology), as well as non-visible relations (functions and dynamic processes) that together shape the place (Bergquist & Hedfors, 2019). In such a design, parts do not maximize their potential at the expense of others. Instead, all elements contribute to the regenerative potential and processes of the whole system. A regenerative approach informed by GST prioritizes a mutually beneficial relationship between human system and environmental system. Regenerative GST develops rich and complex solutions that evolve and sustain themselves over time (system self-organization) (Bergquist & Hedfors, 2019; Thomson & Newman, 2020). For these reasons, the regenerative design approach has the potential to support and grow urban resilience to natural disasters in the long run.

Current urban design methods tend to focus on technical strategies (e.g., defenses against sea level rise and the quality of infrastructure) to enhance ecological resilience[1]. However, urban resilience is a result of both ecological and human systems' resilience. A resilient society enables vulnerable people to be more productive and have a full life to create resilient citizens. As Campanella (2006) argued, "a city is only as resilient as its citizens. Resilient citizens have enabled urban resilience throughout history" (p. 143). Therefore, a resilient design incorporates strategies that aim to improve not only ecological urban resilience but also the cultural and social resilience of the humans who inhabit the place. For this reason, resilient urban

1. According to the United Nation report (2022), resilience is defined as: "The capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or re-organizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation" (p. 43).

designs recognize the maximum potential of the whole place as a system in which other systems are nested and the wider connections on which this set of systems depends.

REGENERATIVE APPROACH FOR A RESILIENT URBAN DESIGN

The field of regenerative design redefines what urban design includes and what its role must be. This approach is a relatively new proposal that aims not only to stop the degradation of ecosystems but also to reverse the degeneration of both the human and natural systems. The methodology of regenerative design focuses on living system design as an alternative to technical system design to encourage the self-healing of the global and local systems. This regeneration can be achieved by developing human settlements that partner and harmonize with natural systems and processes to constantly regenerate the health of the place as a whole and the people who inhabit it. This process of regeneration of the health of natural and human systems aims to allow us to reverse the damage that has happened to both systems, to support social and environmental justice, and to improve urban resilience over time (Lyle, 1996; Mang & Reed, 2020). According to the United Nations IPCC report on Climate Change, "Urban regeneration programs offer scope for strategic direction changes to low-carbon and high-resilience urban form and function" (2022, p. 989).

The role of the regenerative designer

According to Regenesis (2016), regenerative designers engage in three lines of developmental work simultaneously and seek to understand, develop, integrate, and align these lines. The first line of work addresses the development of the capacities of the designer himself to be capable of improving the work at the other two lines. The second line of work focuses on the design *Process*. This work seeks to grow the regenerative capacities of all stakeholders (design team) including the local community to work collaboratively to serve its shared goal of the third line. This third line is the work of the designed *Product* which focuses on what the designer is aiming to create to improve the health and value of a system.

Premises of the regenerative approach

Regenerative approaches can be framed by the following four key elements. The first two premises define motive and motivation in a regenerative project. The other two elements relate to how a project is implemented to ensure that the process leads to a regenerative outcome (Mang & Reed, 2020; Wahl, 2016). The use of systems thinking, as a holistic approach, includes the focus on living systems rather than a technical systems approach in urban design. This enables regenerative development to make an original synthesis of these elements that allow the recognition of the impact of human practices on urban resilience as well as the importance of social and cultural dimensions for supporting resilience of the place.

(1) ***Understanding patterns and potential of place:*** In regenerative design, "Place" is a living context that refers to a unique socio-ecological system. It is the "dynamic network of natural and human ecosystems within a geographic region" (Mang & Reed, 2020, p. 18). A project is regenerative when it is grounded in a rich understanding of the patterns or relationships of its place, and when the design of this project is guided by the potential for realizing the higher level of health and value that can be re-established within that place.

(2) ***Project goals focus on regenerative capacity:*** The central component of regenerative design is the performance of the "place" rather than a single building. Therefore, goals of regenerative projects focus on growing the systemic regenerative capacity of a place (refers to both human and natural systems) which must be locally embedded into the system to support ongoing co-evolution of the natural and human systems to grow the health and value of the systems in that place as well as the larger systems they are nested in and depend on (Lyle, 1996; Regenesis, 2016).

(3) ***Creating partnership with the place:*** A successful regenerative project requires the design team and local community of a place to move from the role of "builders" of systems that we can control to the role of "gardeners" who think and work as partners in co-evolution with the living system or the place and its processes. This role is required to ensure that the project is generating patterns that harmonize with the larger patterns of place. To move to this role, the design team and local community need to understand the distinctive core or "essence" of a place (who a place is? and how it functions?) to generate the connection and caring that strengthen the partnership relationship with the place. This requires a deep understanding of the ecological, social, cultural, and economical systems of the place (Mang & Reed, 2020; Wahl, 2016).

(4) ***Progressive harmonization:*** To ensure continuous resiliency, regenerative projects seek to achieve a mutually beneficial relationship between the human and natural systems in a place. Regenerative design is a process of patterning human communities to harmonize and align with the patterns of a place in a way that enables both humans and the place to co-evolve. This harmonization is not stable, since a good design today may become a bad one in the future. In other words, regenerative design creates a continuous re-patterning and a progressive harmonization (Mang & Reed, 2020; Regenesis, 2016).

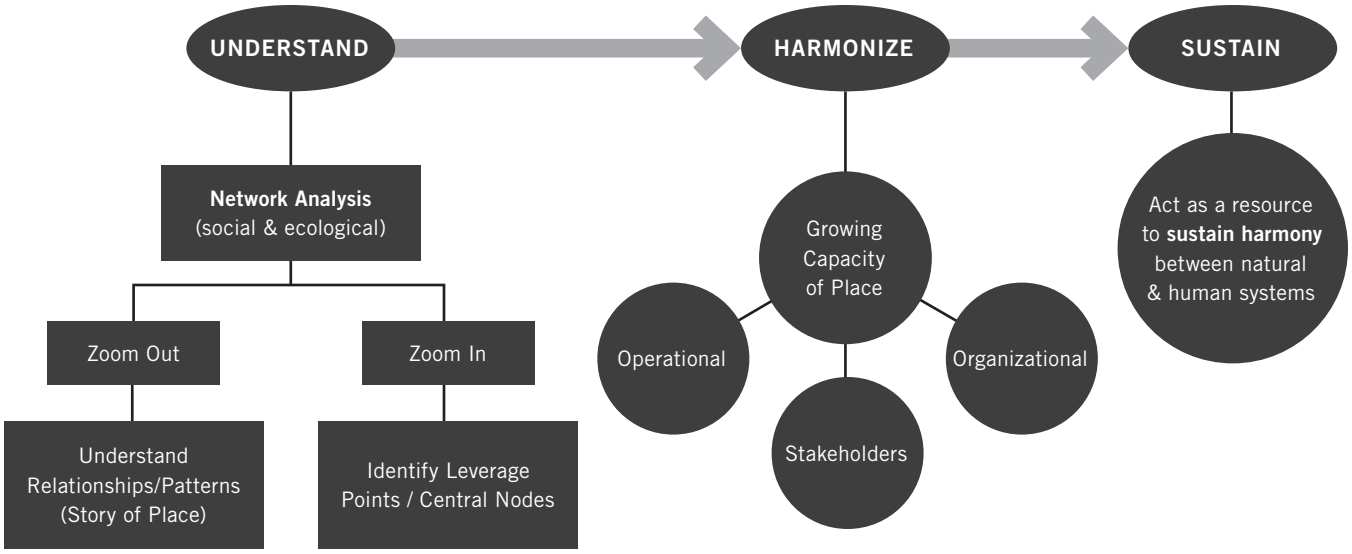

FIGURE 1: The three steps for applying a regenerative design (Source: author)

The practice of regenerative design

Regenerative design has the potential to reverse the damage and degradation of human and natural systems by implementing strategies that enable the self-healing process and developing resilient human settlements that constantly harmonize with natural systems. The implementation of regenerative design in the place involves three steps: understanding, harmonizing, and sustaining (Figure 1). *Place* refers to the socio-ecological system that represents the natural and human systems, and the interaction between them, within a geographic area (Mang & Reed, 2020; Regenesis, 2016).

To apply a regenerative approach, the design team, which includes the local community, starts by developing a rich understanding of the relationships of the place in which the project will exist. The team also gathers information and conducts social and ecological network analysis to realize the potential of the place. That is, designers learn about the best level of health and value that the project can regenerate within that place (Mang & Reed, 2020; Regenesis, 2016).

In this stage, designers use system thinking in which we consider all the elements of the system and the interaction between them. This method allows designers to see a view from above by zooming out on the place as a whole system to understand bigger, deeper, and different pictures and views. System thinking is essential for regenerative design since this approach does not focus on partial problems or parts of the place. Rather, it aims to understand the place as a whole system. The zooming out strategy enables designers to understand relations or the story of the place as well as to zoom in on central nodes or leverage points in the system. Changes in these points lead to a major impact on the whole place (Meadows, 1999; Regenesis, 2016).

In the second step, designers work towards developing human settlements that constantly harmonize with the natural system and relationships between the elements of place, by designing projects that involve strategies for growing the capacity and health of the whole place (human and natural systems) as a system. That is, the project includes training programs and regenerative techniques that grow the operational and organizational capacities as well as the potential and capacity of the community who inhabit the place (Mang & Reed, 2020; Regenesis, 2016).

Finally, the design team ensures that the project is generating a sustaining harmonization between the human and natural systems. It is a harmonization that evolves over time rather than a one-time harmonization. To achieve that the design team acts as a resource that provides processes and methods to continually support a regenerative harmonization between the two systems. It is important for the harmonization process to be progressive because a good regenerative strategy today may become a bad one in the future (Mang & Reed, 2020; Regenesis, 2016).

As can be seen, regenerative design does not focus on problems. Rather, it extends to a form of ongoing maintenance and development. The goal of a regenerative project is to grow the capacity of the human and natural systems and to apply strategies that ensure a progressive harmonization between the two systems. In doing so, regenerative design has the potential to minimize human contributions to the intensity and impact of disasters and therefore maximize urban resilience to natural disasters.

Human practices and urban resilience

To connect the discussion of regenerative systems design, an overview of two real-world examples of natural disasters from the literature will be presented and then discussed: Hurricane Katrina in New Orleans and the flood in Mumbai. The analysis aims to show how human practices, policies, and behaviour could impact the degree of harmonization between natural and human systems and affect not only ecological urban resilience but also social and cultural resilience to natural disasters.

Hurricane Katrina in New Orleans (2005)

During Hurricane Katrina, the storm that resulted in a catastrophic flood in New Orleans, it became clear that human attitudes and practices that occurred pre-disaster maximized the intensity and negative impacts of flooding caused by the storm. The lack of environmental and human justice in the city reduced urban resilience to the natural disaster in different ways. On the one hand, the non-harmonized human-nature interaction on a regional level, precedes the flood disaster, reduced resilience of the ecological system. The flooding "was exacerbated by hydrological engineering that had been undertaken to foster commercial development" (Anjaria, 2008, p. 193).

On the other hand, before Hurricane Katrina, New Orleans was experiencing human-made challenges that reduced its social and cultural resilience to natural disasters. One challenge is that the social structure of the community was characterized by racism and discrimination based on social classes and colour (Solnit, 2010). As argued by Bartling (2008), the issue of mobility privilege in New Orleans is one example of the "exclusionary social practices, and public policies that spatially segregated people on the basis of race and class" (p. 99). At the time of Hurricane Katrina, the newly developed areas "were seized upon by higher income, primarily white households" (p. 105). The logic of mobility that informs human practices and policies of this new urban development, was characterized by "privileging of the automobile as the primary form of urban and regional mobility" (Bartling, 2008, p. 104). However, poor, central New Orleans residents did not have access to their own vehicles to leave the city.

Two years before Katrina, a report by the City Planning Commission (2004), highlighted the risk associated with relying on private automobiles as primary means of evacuation in the case of a flood crisis. The report emphasized that:

> Hurricane evacuation planning is made more difficult for the city, due to the large percentage of residents without access to a private automobile…Evacuation is also closely related to income…In addition to those unable to afford vehicles or transportation there are the disabled, hospitalized, elderly, and incarcerated who would not be able to drive from the area. Development of alternative means for citizens to leave the area is crucial. (p. 145)

In addition, over the course of the twentieth century, suburbanization processes encircled the old city, and its clustered, multicultural neighbourhoods, and resulted in "the disintegration of the residential base that had created, nurtured, and sustained New Orleans' unique culture" (Hirsch & Logsdon, 1992, as cited in Wagner, 2008, p. 182). Therefore, the culture of *"creole urbanism"* of New Orleans began to unravel (Wagner, 2008). *"Creole urbanism"* refers to the hybrid culture as well as the hybrid urban morphology and built structure that characterized New Orleans which was shaped by diverse cultures including "the Creole blend of French and Spanish, African and Afro-Caribbean, German, Irish, Italian, Anglo-American" (Campanella, 2006, p. 145). Suburbanization decreased the cultural resilience of New Orleans by gradually demolishing the "city's creole urbanism—its urban spatial structure—as a central component of its cultural identity" which was shaped by a "long history of ethnic hybridity that has contributed to the city's sense of place and identity" (Wagner, 2008, p. 174), and by building over coastal wetlands that had previously buffered winds and storms coming from offshore.

Suburbanization and mobility privilege are examples of human-made challenges that resulted from colonial and racist approaches to modern urban design. These human practices and policies reduced the city's social and cultural resilience in post-disaster and "exacerbated the social and ecological dimensions of the regional destruction wrought by Katrina" (Bartling, 2008, p 99). In her book *"A Paradise Built in Hell"*, Rebecca Solnit, described how human behaviour and actions motivated by racism, especially "the elite panic," in the aftermath of the Katrina maximized the intensity of the situation associated with the flood. She wrote, "fed by racism and the enormity of the storm, the elite panic reached extraordinary levels in the aftermath of Hurricane Katrina. That generated a disaster of its own" (Solnit, 2010, p. 254). Many human reactions in the post-disaster were influenced by fear of and racism against the poor black American population of New Orleans. Some media and people in power accepted rumours about looting, rape, and crimes as facts. As a result, many victims of the disaster were regarded as criminals and some were killed, prevented from evacuation, or left to die. Many people who were "trapped in the city believed that they had been left to die, some believed that it was because they were black" (Solnit, 2010, pp. 254 – 259).

Political and social practices of mobility privilege contributed to the failure of the evacuation plans and the intensity of the negative impact of the flood on vulnerable groups. During the evacuation process before the flood, the problem of mobility justice exacerbated the challenges and risks that many victims of Katrina faced. As Bartling (2008) explained, advantaged groups who have access to private vehicles had the privilege to leave the risk area easier and faster than other people. The majority of those who could not use private automobiles for evacuation were residents from disadvantaged groups, such as the elderly and low-income people. As the situation in the

"shelters of last resort" became devastating, many of these vulnerable people tried to leave the city, but "were forcibly turned back by police in neighboring suburbs as they approached the city's limits" (Bartling, 2008, p. 112).

The lack of cultural and social resilience to the natural disaster in New Orleans led to a diaspora of many of the city's population after Katrina. A year after, about 39% of the residents who left the city in the evacuation, did not have the intention to return and a decade later, many had not returned. As a result, the city's capacity to rebound and recover after the flooding was further impacted (Campanella, 2006, p. 144; Wagner, 2008, p. 172). Throughout history, urban resilience has been "largely a function of resilient and resourceful citizens" (Campanella, 2006, p. 141). The absence of the city's citizens facilitates the adoption of the vision that treats the city as a clean slate. According to this ideology, residents of the poor neighbourhoods do not contribute to the planning or recovery process, although "they would have the best idea of how the city could be rebuilt in a way sensitive to local history and cultural practices" (Anjaria, 2008, p. 200).

The option pursued was to use the evacuation and crisis as an opportunity to gentrify neighbourhoods with historic architectural qualities, and to exclude parts of the existing population who had participated in creole urbanism but were unable to renovate because they were poor or did not have formal ownership documents that were required to receive government assistance to rebuild. The result is a much-reduced creole quality, partly covered up by a touristic simulation of creole heritage in neighbourhoods reorganized around consumption opportunities for relatively well-off visitors. The result of these policies is that the main cultural characteristic of the city as *creole urbanism* disappeared and another city with different demographic, geographic, and political features was built (Anjaria, 2008, p. 200). On the contrary, a regenerative design approach to rebuilding New Orleans would have had and has the potential to increase the resilience to natural disasters by growing the capacity of the local communities, generating a healthy social system, and reinforcing the cultural identity of the place as well as involving the residents in the design process.

Mumbai flood (2005)

Like New Orleans, human unsustainable development practices and non-harmonized human-nature interaction on a regional level, preceded the flooding in Mumbai in 2005, contributed to the intensity of the disaster and reduced resilience of the ecological system. As Anjaria (2008) explained, "Rampant construction over natural water catchment areas, as well as encroachments on natural drainage systems, prevented the rainwater from flowing out of the city" and exacerbated the flooding (p. 193). Bhagat and Chattopadhyay (2006) described human practices that contributed to the flood in Mumbai. They stated that:

> The land use of the city shows that the concrete city has pushed nature to the margins. There has been a marked increase in the built-up area… opening up of large area for construction has led to the peripheral areas becoming degraded into scrublands… wetland and forest that used to cover 28 and 60%, respectively, of the total land use of Mumbai in 1924 has come down to 18 and 30% in 1994… Six drainage basins in Mumbai are gradually choking due to construction of roads, buildings, and encroachment of slum areas. (pp. 339-340)

In contrast to New Orleans, human social and cultural practices in pre-disaster in Mumbai supported the city's resilience to natural disasters. Throughout history, Mumbai's open spaces have been characterized by a strong resistance to modernist ideals of city planning, which have typically focused on the isolation of the individual and have ignored social values and cultural identity in urban design. Anjaria (2008) described Mumbai as "a city that seems to wholeheartedly reject such ideals" and that "frustrated bourgeois, or modernist ideals of urban space" (p. 189). This rejection of the foreign culture and attachment to the local identity of Mumbai in the pre-disaster allowed the city to be more resilient to the flood than New Orleans.

The strong cultural and social resilience of Mumbai enabled its residents to effectively respond to the flooding as well as to rebound and recover in the post-disaster despite the failure of the infrastructure of the city. As Anjaria reported, in the aftermath of the Mumbai flood, many police and government services were not functioning. Despite that, the situation was not marked by social disorder, elite panic, or violence. Rather, the public community "showed a huge outpouring of spontaneous acts of kindness and generosity" and residents "put aside religious and ethnic differences to help each other" (Anjaria, 2008, p. 194). The poor population, including slum residents and unemployed young people played an important role in providing food and aid to the public regardless of their class or ethnicity. The upper classes in the city appreciated the positive contributions of this crowd and considered them as "the true spirit of Mumbai that saved the city in the time of crisis" (Anjaria, 2008, p. 196).

DISCUSSION

Human practices and urban resilience to natural disasters

These examples illustrate that although many disasters occur naturally, human practices and policies may influence urban resilience, and therefore, exacerbate or reduce the intensity of natural hazards. As such, taking the human system into consideration in urban design and development is important, to support ecological, social, and cultural resilience and reduce the intensity of natural disasters.

(1) ***Human practices could reduce resilience and exacerbate the intensity of disasters:*** In both examples, Hurricane Katrina in New Orleans and the flood in Mumbai, urban resilience was reduced, and the impact of natural disasters was maximized by human practices. Fragmented thinking, that does not take the whole system into account, in the two cities, reduced their ecological resilience to disasters. The non-harmonized human-nature relationship manifests in irresponsible human practices and construction that did not attend to the ecological network in the two regions. These human practices reflect the risk associated with urban design and development that focus on short-term benefits without recognizing the effect of the project on the whole ecological system of the place.

In addition, human practices and urban design policies that are influenced by fragmented thinking and the lack of human justice (e.g., mobility privilege, suburbanization process, elite panic) in the pre- and post-disaster status of New Orleans, exacerbated the damage to the human system, reduced social and cultural resilience and weakened the community's ability to effectively respond to and recover from the disaster. Consequently, some communities disappeared from the city resulting in partially rebuilt neighborhoods. The disappearance of communities that contain the local culture constitutes a serious threat to the cultural identity of the city.

(2) ***Social and cultural resilience could reduce the intensity of natural disasters:*** Unlike the situation in New Orleans, human practices that strongly reject modern approaches to urban design which ignore cultural and social dimensions, allowed the community in Mumbai to maintain a higher degree of social and cultural resilience. As a result, Mumbaikars were able to overcome the crisis and work together to respond to disastrous flooding despite the failure of the infrastructure of their city. While most residents of New Orleans disappeared from their city after the disaster, Mumbaikar citizens themselves were involved in responding to the disaster and reconstructing their place. In other words, the social and cultural resilience of the local community in Mumbai, reduced the negative impact of the disaster, supported the recovery of the city and enabled Mumbaikars to preserve the main cultural and social characteristics of their city.

Resilience and urban design

(1) ***Social and cultural dimensions in urban design:*** The above inferences point to the importance of recognizing social and cultural dimensions which could be overlooked in urban design. Maret and Cadoul (2008) argued that, in the long-term, resilience must focus on the social and cultural dimensions of a community. Cultural and social resilience "needs to be a central focus in post-disaster reconstruction, as it is the most fragile, the least tangible, and the slowest to be rebuilt" (p. 114). Cultural and social resilience is highly impacted by human practices and policies that inform contemporary urban design. The clean slate plan for reconstructing New Orleans is one example of these policies. The disadvantage of this plan is that it results in a transformation that poses a clear threat to the unique creole urbanism culture that characterized the city. As such, there is a need for urban design approaches in which human practices and policies support and improve cultural and social resilience of local communities.

(2) ***Social and cultural dimensions in regenerative design:*** Unlike common urban design, regenerative approach to human development supports not only ecological resilience but also social and cultural resilience to natural disasters. This characteristic promotes justice for vulnerable communities as it improves their capacity to effectively respond to and overcome the challenges when a natural disaster hits the place.

One of the key attributes of regenerative design is that it promotes "a co-evolutionary, partnered relationship between socio-cultural and ecological systems rather than a managerial one. In doing so, this suggests a relationship that builds, rather than diminishes, social and natural capitals." (Cole et al., 2013, p. 2). A regenerative project "works on developing the capability of living systems, social as well as natural, to express their potential for diversity, complexity, and creativity" (Regenesis, 2016, p. xxvii). In regenerative development, each member of the human system "is aware of and invested in the continued well-being and resilience of all other stakeholders. In other words, each member sees itself as an investor in the whole" (Regenesis, 2016, p. 90).

Regenerative projects seek to regenerate the local culture of the community. In the first step of applying regenerative development, the design team seeks to understand the essence of the place. The best people who could contribute to this understanding and who represent the cultural identity of the place are the local people who inhabit it. Therefore, the design team partners with them to explore the longstanding historical and cultural significance of the site and regenerate the place based on community identity and culture (Regenesis, 2016).

Preserving the local culture of the place is extremely important in regenerative development because "the loss of local culture is, in part, a practical loss and an economic one," since this culture contains "the knowledge of how the place may be lived in" and it "will carry the knowledge of how the place may be well and lovingly used, and also the implicit command to use it only well and lovingly" (Regenesis, 2016, p. 38).

One important aspect that distinguishes regenerative design from other urban designs is the engagement of local communities in the design and implementation of the project. This engagement offers them the opportunity to participate in making decisions that have an impact on the resilience of their society. By involving the community in the regeneration process, the project creates new employment opportunities that support the economical resilience and growth of the place. To ensure effective local involvement in the project, regenerative designers implement strategies and programs to grow the capacity of the local community. The partnership with local communities in regenerative projects supports climate justice by creating social power and building strong social capacity that increases the potential and resilience of the social system in the place. When local communities feel that their voices are heard and respected and the project is aligned with their dreams and aspirations, they are more likely to contribute to the regenerative process with their maximum potential.

Challenges for regenerative design

Despite the above advantages of regenerative design, our analysis of the two cases in this paper revealed possible challenges that the implementation of regenerative design could encounter. For example, due to lack of capacity and resources, vulnerable societies may not be able to apply the regenerative approach to the design of their places on their own, as it requires comprehensive organizational effort and a high level of expertise and coordination among different parts of the system. For this reason, vulnerable communities may need external support to grow their capacity and improve their urban resilience. The case of Mumbai, however, showed that local communities could resist and reject cooperation with foreign or external agendas due to the lack of trust. In addition, community involvement in the design process is an essential requirement for a successful implementation of regenerative design. However, our analysis of the case of New Orleans revealed that in some situations, community engagement in reconstructing the city may not be feasible due to the absence of the local citizens after the disaster or exclusionary attitudes based on economic status or race (or other characteristics: age, gender, ethnicity, religion, or caste).

CONCLUSION

The analysis of the flood in New Orleans and Mumbai showed that human practices and policies may influence urban resilience, and thus exacerbate or reduce the intensity of natural disasters. Therefore, it is important to take the human system into consideration in urban design and development, to support urban resilience and decrease the negative impact of natural disasters on human and natural systems.

While current urban design methods tend to focus on technical strategies to enhance ecological resilience, this study emphasized the importance of recognizing social and cultural dimensions in urban design to improve place resilience. As such, there is a need for urban design approaches to support cultural and social resilience of local communities. This paper demonstrated how the regenerative approach to urban design, which uses systems thinking, and focuses on living systems rather than technical systems approach, made an original synthesis of premises that allowed the recognition of the impact of human practices on urban resilience as well as the importance of social and cultural dimensions for supporting place resilience to natural disasters. According to this approach, the place is a system in which other systems are nested and place is nested in broader ecological, geographical, and social systems that are beyond the scope of this paper. Reversing the degradation of the system by regenerating the balance within each system and between systems is essential for designing a healthy resilient place.

One implication of this study is that policymakers and designers need to take cultural and social dimensions into consideration in their policies and urban design to improve urban resilience to natural disasters. The regenerative design approach, which recognizes the capacity of both human and natural systems, has the potential to reinforce the cultural, social, and ecological urban resilience to natural disasters.

Regenerative design, however, is a recent method and its applications to urban design require more development by future research. For example, researchers could focus on informing the implementation of the regenerative approach in sociotechnical projects at an urban and regional scale, via teleological paradigms which propose a "logical pattern of actions and assumptions that must be followed in the conduct of planned sociotechnical actions" (Podgórecki & Shields, 1989, p. 15). One limitation of this study is that it identified but did not focus on challenges of the implementation of regenerative urban design. Future studies could investigate the difficulties that this approach to urban design could encounter in practice. ■

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THE ART FACTORY:

POST-INDUSTRIAL SPACES FOR ART AND CULTURE

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Justine Kohleal is an independent curator and PhD student in the History of Art, Design, and Visual Culture at the University of Alberta. Her research draws upon theories and practices related to contemporary art, critical museum studies, and affect theory to addresses contemporary art galleries that take residence in post-industrial spaces. She looks specifically at such spaces' corporeal, spatial, and historical echoes to question the ways in which their continued entanglement with colonial and neoliberal systems affect the production of contemporary culture by transforming creativity into yet another extractive industry. Kohleal's doctoral project is therefore relevant for thinking through how 'factory logics' stymy efforts to produce the more ecologically and socially just cultures our future demands. She received her MFA from OCAD University in Criticism and Curatorial Studies and previously worked as a curator at The Power Plant Contemporary Art Gallery in Toronto, Ontario. Kohleal is currently a SSHRC Doctoral Fellow.

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ABSTRACT: As post-industrial sites increasingly transform into zones for contemporary art and culture, it is worth asking what kinds of bodies, art, and space they produce. Contemporary accounts of former-factories-turned-art-galleries typically ignore the factory logics underpinning their space. Utilizing feminist theorists that focus intimacy and embodiment, this essay understands the factory not only as architecture, but also as infrastructure—in other words, as a material and ideological structure operating within broader systems of power and control (Alfaro, 2021; Easterling, 2014; Gitelman, 1992). A brief history of the Phalanstery as a precursor to the modern factory, alongside the ways in which artists have appropriated the factory's image, is followed by new case studies on Italy's Arsenale di Venezia and Beijing's 798 Art Zone—two art complexes that operate on opposite ends of the architectural spectrum, with the former retaining much of the original structure and the latter opting to 'upgrade' it with tech-forward materials and designs. Ultimately, and regardless of architectural container, neither building provides official spaces where 'minimal difference' can be cultivated and embedded, ensuring that both the art and bodies produced conform to the standardizations and repetitions endemic to the modern factory.

KEYWORDS: INFRASTRUCTURE; FACTORY LOGIC; INTIMACY; FEMINISM; SPACE; ART; ARCHITECTURE; EXHIBITION MAKING; ADAPT-AND-REUSE; HERITAGE BUILDINGS.

THE ART FACTORY: POST-INDUSTRIAL SPACES FOR ART AND CULTURE

Justine Kohleal

For those seeking to understand the intimate operations of power in material, political-economic, and systemic terms, the study of infrastructure offers both an object and a rubric.

— Ara Wilson (2016), 273.

IN HIS INFLUENTIAL ESSAY "The Factory" (1999), philosopher Vilém Flusser positions factories as fundamental to human development—"places in which new kinds of human beings are always being produced" (p. 44). Factories do not just churn out commercial goods, therefore; they also manufacture ways of being in and relating to the world. But what of those industrial ruins that have been appropriated by the cultural sector, transformed into so-called 'entertainment centres' or 'maker spaces' for upwardly mobile urbanites? *The Art Factory* utilizes Lucas Zan's (2022) stratigraphic strategy to explore how the factory endures spatially, materially, and symbolically within post-industrial sites that have been converted into centers for contemporary art and culture. This essay offers a new comparative study of two former industrial compounds-turned-art-centres: Italy's Arsenale di Venezia (Arsenale), which has retained much of its original structure, and China's 798 Art Zone (798), a sprawling art and shopping complex located on the outskirts of Beijing. Excavating both sites' material and cultural history demonstrates how, regardless of architectural strategy, on the level of infrastructure such spaces continue to operate in an industrial capacity, transferring energy (literally, in the form of transportation fuels, and figuratively, as bodies move to reach art 'hot spots') and commodities (artworks, primarily, but also ancillary products, such as marketing materials) within an increasingly transnational art market. I argue that rather than create what Claudia Alfaro (2021) characterizes as "*intimate spaces of difference*" (pp. 372–373), where factory (i.e. capitalist) abstraction is subverted by everyday practices, spaces like Arsenale and 798 continue to produce the bored, alienated bodies endemic to the industrial era.

While Flusser (1999) is an excellent guide to thinking through so-called 'factory logics', he is primarily concerned with the factory of the future. His essay looks closely at the architectural transformations that were already happening during the fourth industrial revolution—i.e. machines transitioning into robots—to question what type of bodies might be produced by this seismic shift. Flusser does not, therefore, concentrate on *former* factories, or those industrial sites stripped of their function by economic downturns that are, as Michael Aitchison (2014) insists, "not anomalies, but integral parts of the industrial experience" (p. 5). Nor does he position them as infrastructures, which they surely are.[1] And yet, as post-industrial sites increasingly transform into spaces for contemporary art, it is worth asking how they continue to operate as infrastructures of power that not only produce a certain kind of human being, but also a certain kind of art.

It is not my intent to feed into xenophobic comparisons regarding East versus West, or to suggest that one architectural style is more 'authentic' or 'innovative', and thus superior, to the other. To ensure that this essay does not simply replicate the "xenographic" binary of East/West, inside/outside, or local/global, I supplement the theoretical writing around the factory (Flusser, 1999) and space (Lefebvre, 1991) with feminist theorists focusing on an embodied politics of intimacy, including its potential to create spaces of 'minimal' difference. Minimal, as understood in relation to Alfaro (2021), is a social difference that produces "varied forms of lived experience" (p. 372). Spaces of minimal difference, then, are interstitial and quotidian; they produce ways of being in and relating to the world that deviate from abstract space's standard lines and orientations. Though Lefebvre offers the scaffolding for thinking through urban spatialization, the production of space, and the everyday, his commitment to a Marxist analysis has rightly been critiqued as not only Eurocentric, but also resistant to the realities of patriarchy and gender (Alfaro, 2021; Buckley & Strauss, 2016). In much feminist and decolonial thought, producing the everyday is a relational and embodied affair, one that is complicated by a corporeal existence that straddles an increasingly overlapping domestic/public sphere (Alfaro, 2021; Buckley & Strauss, 2016; Wilson, 2016; Pratt & Rosner, 2012; and Lugones, 2003). For these scholars, the everyday not only provides the material means to resist neoliberalism, it is also the site where intimacy can be extended beyond the home into a global, transnational arena. Indeed, Wilson (2016) argues that infrastructure—that is, factories, power lines, roads, bridges, and the like, all of which are physical and material manifestations of the state and market—are deeply corporeal, as they facilitate our relationships to one another and the built environment. Understanding infrastructure from the level of the sensing, feeling body not only helps us see "how larger forces produce private, proximate, and personal domains and distribute resources unequally across different valued relations" (Alfaro, 2021, p. 371), it also provides the space in which factory logic can be exposed and fought.

THE ART/FACTORY: A BRIEF HISTORY

As a precursor to the modern factory, French philosopher and early socialist thinker Charles Fourier's Phalanstery tackled the question of how the arts might be woven together with industry (figure 1).[2] Conceived in 1808, this "'immense lodging house'" was intended as a utopic compound in which citizens of various socio-economic backgrounds carried out activities related to modern society, including producing goods or services and providing art and entertainment (Felix Armand and Rene Mautblanc as cited in Benjamin, 1999, p. 643).

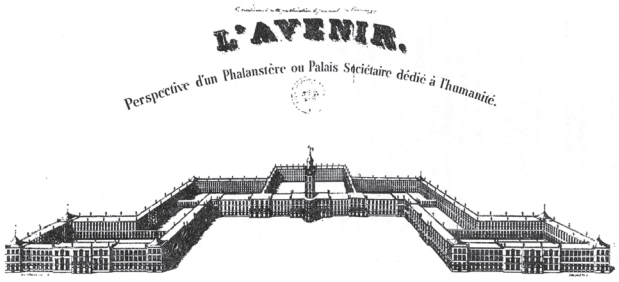

FIGURE 1: Plan dessiné par Charles Fourier dans le monde industriel, 1829 (Perspective view of Charles Fourier's Phalanstère. The rural areas and the garden are not represented). Image © Victor Considérant, Public domain, via Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Phalanst%C3%A8re.jpg.

Architecturally, the Phalanstery was inspired by the Parisian Arcades, with their covered walkways, multi-use spaces, and unique mixture of commerce and community; spatially, Fourier organized the complex according to colour theory, mathematics, and the "human passions":

> The social movement is the pattern for the three others. The animal, organic, and material movements are coordinated with the social movement, which is primary. This means that the properties of an animal, a vegetable, a mineral, or even a vortex of stars represent an effect of the human passions in the social order, and that everything, from atoms to stars, is an image of the properties of human passions (Fourier as cited in Benjamin, 1999, p. 639).

1. Many feminist scholars define infrastructure not only as highways, waterways, and electrical grids, but also as spaces of connectivity, or, more broadly, as "systems engineered to order social and natural worlds" (Cowan, 2017, para. 4). See also Alfaro (2021), Easterling (2014), Gitelman (1992), Larkin (2013), and Mitropolous (2012).
2. Michael Faciejew indicates that Flusser owed much of his thinking around the factory to both Hannah Arendt and Walter Benjamin. See Michael Faciejew, "The Car Factory, Post-Industrialism, and Utopia," *Journal of Architectural Education*, 67:1 (2013), 52-63.

The notion that one could create an infrastructure in which the existing delineations between family, leisure, culture, and industry were altogether blurred led Walter Benjamin (1999) to describe the Phalanstery as "a machine made of human beings"—a characterization that pointed toward its philosophical complexity rather than its seemingly "mechanistic" nature (W4,4, p. 626). However, Fourier's vision of the Phalanstery as a harmonious space in which each human or more-than-human being found their exact niche undoubtedly recalls the gears, levers, and cogs of the forthcoming industrial era. Performing their tailor-made roles day-in and day-out, Fourier insisted that Phalanstery citizens (known as 'Harmonians') would require "very little sleep" and "neither acknowledge nor desire any holidays" (Benjamin, 1999, W16,5, p. 647 and W17a, p. 649).

Though the Phalanstery was not a factory per se, it is possible to trace Fourier's ideas pertaining to social harmony through the built environment (in particular his desire to create a space in which work and leisure are no longer at odds) to the modern factory. And while Fourier's vision of the Phalanstery as a space in which culture and commerce happily coexisted did not come to pass, as the industrial revolution ushered in a wave of new building demands the factory (and 'factory towns') nevertheless became a place for architects and designers to experiment (Atchison, 2014). Indeed, the transformation of the dreary, draconian factory into a clean and efficient beacon of prosperity was made possible not only through material and technological advances that enabled the construction of more spacious, light-filled structures, but also a desire to imbue harmony through an aesthetics of beauty. Projects such as Highland Park (1909) soon led to entire industrialized regions in North America and Europe that re-spatialized the factory as an extension of the home (*ibid*). It was not long, therefore, before factory "standardization," "social homogeneity," and "technological triumphalism" began to migrate into the urban built environment, producing entire cities in the factory's image (Faciejew, 2013, p. 58). Indeed, Benjamin (1999), writing about modern Paris post-Haussmannization, described its citizens as bored, alienated, and "worn-out laborer[s]" (D2a,4, p. 106). Modern factories are thus the capitalist conclusion to Fourier's Phalanstery—i.e. infrastructures of power whose logics extend beyond the factory walls to produce, as Foucault (1995) might say, docile bodies.

For their part, artists have long been interested in the figure of the factory. Besides its symbolic and creative potential, they are often drawn to former industrial or commercial spaces for their cheap rents and gritty atmosphere, which allows artists to project the bohemian lifestyle so often associated with their profession (Clavan, 2019). Indeed, Andy Warhol (1928-1987) embraced the factory as a mode of artistic production as early as the 1960s: located in various commercial buildings throughout midtown Manhattan and dubbed 'The Factory', Warhol's studio churned out hundreds of silkscreen and lithograph prints, films, and even shoes using Fordist production techniques, mounting a critique of American consumerism and artistic 'authenticity' in the process.[3] Decades later, British artist Michael Landy appropriated the assembly line to destroy all of his worldly possessions. *Break Down* (2001) took unflinching aim at consumer culture, as over the course of fourteen days Landy and a team of twelve assistants dressed in blue boiler suits systematically destroyed 7,227 of the artist's personal items, ranging from his passport to old love letters—even his SAAB 900 Turbo car.[4] Significantly, his performance was held in a commercial warehouse owned by Dutch fashion brand C&A, which Landy identified as "perfect" because, unlike an art gallery, it was a space in which "people go to consume" (Snook, 2016).

Landy's sentiment—that art galleries, unlike retail spaces, are not sites of consumption but rather spaces for enlightenment and contemplation—is one that is often promoted by the so-called 'art world'. This is, however, only a partial view of the museum's ethos. While the French revolution (1798) threw open the doors to the nobility's private collection, museums across North America and Europe have nevertheless always been associated with empire and industry (Cook, 2017). Carol Duncan (1995) has written extensively about museums in the United States being founded, funded, and designed by "men of wealth and power" to promote their "high cultural products" (p. 54). In Britain, London's Crystal Palace (1851) appropriated department store design to enable easier visual consumption of the many precious objects on display (Benjamin, 1999; Bennett, 1995). Shortly after, the Tate Britain (1897) became a symbol of "commercial patronage," funded, as it were, by the slave trade (Cook, 2017). Most recently, post-industrial cities throughout both the Global North and South have begun transforming their abandoned industrial buildings into spaces for contemporary art, further blurring the lines between artistic production, consumption, and education. Though their size and scope varies, many of these spaces share similar architectural features, including brick, steel and glass façades, soaring atriums, towering white walls, and exposed concrete floors—spatial or architectural manifestations that represent the languages of Modernism and industrial capitalism, two fields that, in any event, are deeply intertwined (Aitchison, 2014).

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3. It should be noted that Warhol's Factory was never located in an *actual* former factory. Warhol occupied four Factory studios between 1963 and his death in 1987, including a now demolished building on 231 East 47th Street, an old unoccupied firehouse on East 87th Street, the Decker Building at 33 Union Square, and a since-re-modeled building on 860 Broadway.
4. Some critics have questioned whether or not Landy, an art world darling associated with the famed Young British Artists, was perhaps engaging with 'poverty porn', while others critiqued the fact that his destroyed possessions ended up in a landfill. Indeed, nothing was recycled, though critics have argued that this stems from Landy's decision not to make money off of the work. See Benjamin Murphy, "Michael Landy – Breakdown," *Arte Fuse*, February 12, 2012. https://artefuse.com/2016/02/12/michael-landy-breakdown/.

FIGURE 2: Inaugurazione Fondazione Prada Milano – 9 Maggio 2015 [Architect: OMA]. Image © Gaetano Cessati gaetanocessati, CC0, via Wikimedia Commons. https://en.wikipedia.org/wiki/File:Fondazione_Prada,_Milano,_Italy_(Unsplash_oakcRAYgmDo).jpg.

FIGURE 3: Zeitz Museum of Contemporary Art Africa, Cape Town, 21 July 2018 [Architect: Heatherwick Studio]. Image © Matti Blume, CC BY-SA 4.0 <https://creativecommons.org/licenses/by-sa/4.0>, via Wikimedia Commons. https://en.m.wikipedia.org/wiki/File:Zeitz_Museum_of_Contemporary_Art_Africa,_Cape_Town_(_1050775).jpg.

FIGURE 4: Tate Modern from close to Blackfriars Bridge on the River Thames at the northwest, 22 March 2018 [Architect: Herzog & de Meuron]. Image © Acabashi, CC BY-SA 4.0 <https://creativecommons.org/licenses/by-sa/4.0>, via Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Tate_Modern_-_Bankside_Power_Station.jpg.

FIGURE 5: MASS MoCA, from Marshall Street in North Adams, Massachusetts, 23 April 2012 [Architect: Bruner/Cott & Associates]. Image © Beyond My Ken, CC BY-SA 4.0 <https://creativecommons.org/licenses/by-sa/4.0>, via Wikimedia Commons. https://commons.wikimedia.org/wiki/File:MASS_MoCA_1.jpg.

The move to renovate decommissioned power stations and factories for the sake of art and culture stems from a growing awareness by governments that investing in cultural buildings "spark[s]," as Susan MacLeod (2013) says, "international interest" at the same time that it makes "global and local statements about national and sub-national identities" (p. 1); such projects also have the potential to generate tourist revenue and attract a 'creative class' of citizenry coveted for their disposable income—both trumpeted as solutions to revitalizing decaying, post-industrial urban centres (Florida, 2002; 2010). As a result, adapt-and-reuse projects have grown over the past few decades, and typically fall into two broad categories: first, 'starchitectural' structures with sweeping, spectacular façades, including Fondazione Prada's gold leafed distillery in Milan (2018) and Cape Town's Zeitz Museum of Contemporary Art Africa, which has turned its grain silos into concrete and glass baubles (2017) (figures 2-3); and second, a preservationist impulse that places emphasis on the original building, as in London's Tate Modern (2000) (figure 4), Toronto's Power Plant Contemporary Art Gallery (1987), and the Massachusetts Museum of Contemporary Art (1999) (figure 5). However, and regardless of whether key stakeholders attempt to obfuscate their spaces' original function(s) through intense re-designs or not, these physically imposing, sprawling structures are often spatialized in such a way that the memory of the factory looms large.

CASE STUDIES

Arsenale di Venezia

The Arsenale, a former shipbuilding centre located in Venice's famed Lagoon, is a sprawling complex of multiple buildings made of concrete, wood, and brick, some of which materially date back to the late Middle Ages (Antonelli et al, 2002). First built in 1303, it has gone through a number of redesigns: in 1560 the *Artiglierie*, an Arsenale workshop, was constructed (labiennale.org); between 1568 and 1573 the *Gaggiandre* shipyard was added (figure 6); and in the 19th century the *Corderie*'s wooden lofts were replaced with concrete for added stability (*ibid*). The *Corderie*, now the Biennale's main exhibition space, is perhaps the most impressive: narrow but imposing at 318 meters long by 21 meters wide, its concrete floors are separated into three aisles by large columns, which support the renovated lofts, while its roof consists of a mass of imposing wooden beams constructed in the Palladium style (figure 7). Nevertheless, and despite these additions and renovations, the Arsenale has remained largely unaltered (Zan, 2022).

The Venice Biennale itself dates to 1895, but the Arsenale was not used as an exhibition site until 1980 when then-Biennale director Paolo Portoghesi opened it to the public as the Biennale's architecture pavilion, the *Corderie dell'Arsenale* (labiennale.org). The decision to preserve the original architecture stems from the complex's cultural and historical significance. Indeed, Venice's naval might was a major factor in the city's past (and current) wealth: "[the Arsenale] was a huge complex…where the Serenissima fleets were built and, therefore, a symbol of the economic, political and military power of the city" (*ibid*). The fact that the Navy occupied the entire site until 1957, just a few decades before the Biennale appropriated the space, speaks to the strong pull of nostalgia and the city's desire to preserve the memory of the shipyard that contributed to Venice's historic power and prestige. The Biennale is one of the Arsenale's most important stakeholders, and it plays a very active role in its architectural preservation. As Claudio Menicelli (2022) has stated, "In recent years, the *Biennale*'s restoration activities have picked up pace, encompassing the entire North Armory complex and the South Armory" (p. 34).

While the adaptation and reuse of the Arsenale speaks to Benjamin Clavan's (2019) insistence that "[c]ities and buildings must be understood and treated as living organisms that age and change," the space retains strong associations with shipbuilding and other military-related activities (p. 192). In fact, the Navy still owns and operates a portion of the complex. As per Roberto D'Agostino (2022):

> The Navy's presence in the Arsenale is not up for discussion. It currently allocates space to important military studies activities; however, it excludes the city from huge spaces which it does not use. The Navy reduced its operational presence by relocating shipbuilding activities to La Spezia and the Naval Command to Ancona and subsequently conceded numerous buildings to the *Biennale*. Despite this gradual contraction, the Navy retains vast areas of open water and buildings of which it uses only a small part (p. 52).

In addition, the Biennale has also privatized "all the accessible parts of the south and east, and controls huge spaces, for profit, without effective oversight by the Municipality [of Venice, who represent community stakeholders]" (*ibid*). Such politics shed light on how space is produced at the Arsenale: on the one hand through Italy's military industrial complex, and on the other by neocapitalism. Not only does the site's materiality harken back to Venetian imperialism, its privatization—either through the Navy or the Biennale—renders large areas of the Arsenale, including important green space, inaccessible to the urban population as it is open to Venetians and tourists for a fee every two years. In this context, the Arsenale, as 'art factory', abstracts space by controlling use and movement, which likewise influences behaviour on an intimate level. Wilson (2016) describes such infrastructural networks as producing the "*material dimensions* of inequality," i.e. "where you can go, how you can reach people" (pp. 26-27, emphasis added).

As an infrastructure of power, the Arsenale mimics the factory in the way it restricts movement and spatializes the city; as an art factory, it creates what David Harvey calls "ghettoes of affluence," which "undermine concepts of citizenship, social belonging, and mutual support" (as cited in MacLeod, 2013, p. 3). Meanwhile, the Biennale viewing experience is one in which the visitor, beginning at the *Corderie*'s long, narrow entrance, is propelled along with the crowd, the artworks sliding by like products on a conveyor belt (this viewing experience likewise recalls the Parisian Arcades). The Arsenale's built environment also influences the type of art produced; as artists compete with the spaces' cavernous interiors and high ceilings, their work grows ever larger. Bodies are thus alienated from not only the building but also the artwork on display, making intimate relations—whether they be with other humans, animals, or objects—more difficult. In preventing visitors from achieving agency to move, relate, and love in non-linear and gridded ways, the Arsenale bears the residue of the factory with its standardized social and cultural spheres.

FIGURE 6: Arsenale Gaggiandre (1568-1573), 27 March 2019. Image © Sailko, CC BY 3.0 <https://creativecommons.org/licenses/by/3.0>, via Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Cantieri_acquatici_delle_gaggiandre,_attribuiti_a_j._sansovino,_1568-73,_02.jpg.

FIGURE 7: Arsenale Corderie (1303). Venice Biennale, *The Milk of Dreams*, November 2023. [Kohleal, J. November 3, 2023].

798 Art Zone

Beijing's 798 Art Zone is, as Clavan (2019) points out, the project that "jump-started" China's cultural turn (p. 192). 798 formed during a time when avant-garde art was coming to prominence *inside* the country: by the 2000s, contemporary Chinese art was "no longer…viewed as decadent or illegal. Artists could freely respond to and reflect upon the country's modernization drive" (Huang & Cui, 2010, p. 19). Co-built by the East Germans and Chinese in the 1950s, this now-defunct military plant—formerly known as the 798 Beijing North China Wireless Joint Equipment Factory—spans 600,000 square meters (*ibid*).[5] The original building's high, vaulted ceilings, north-facing windows, and ample open spaces are architectural features synonymous with Walter Gropius' Bauhaus and the high modernist period (figure 8). By the 1980s the complex was in decline, and in the 1990s the factory began to rent out workshops to China's Central Academy of Fine Art (CAFA) in an effort to save it from demolition, leading to its eventual appropriation by contemporary Chinese artists in 2000 (Huang & Cui, 2010). According to Wenya Huang and Kaixuan Cui (2010), the arrival of Ai Weiwei and Huang Rui in 2002 marked "the true beginning of the zone," as both artists "reworked the interior spaces into unique exhibition centres with studios while leaving the building's historical and industrial sheen intact" (p. 33). In many ways, 798's early days as a multi-use cultural centre mirror the Phalanstery, in that studio space, educational facilities, and galleries co-existed with commerce, such as commercial galleries, bars, and coffee shops.

This early success soon attracted the attention of both government officials and property developers. As Clavan (2019) states, "In 2006, the State Administration published its first official documents promoting the preservation and reuse of industrial heritage," a policy that simultaneously saved money on expensive new buildings and facilitated the expansion of the country's economic reach through culture (p. 191). Broadly, the government's stated goal was to preserve China's cultural heritage, including its buildings. Nevertheless, Yi Ren (2022) insists that "[t]he unique Bauhaus architectural style, aesthetic value and historical value of the 798 Art District were not recognized by the government"—at least not until private funders took interest (p. 4). As rents soared and artists left to find less expensive accommodations, developers swooped in to redesign large sections of 798's sprawling complex, transforming it from an artist-driven space into a commercial centre (Ren, 2022). Indeed, as Clavan (2019) explains, 798 transformed from "a district originally dedicated to struggling artists" to one "that now features international brand-name galleries…[sitting] cheek by jowl next to newly built, multilevel industry giant outposts such as Audi China Research and Development headquarters" (p. 194). Though the complex's iconic scalloped buildings remain intact, 798's increasingly cosy relationship to industries like Audi is reinforced by the introduction of high-end retail stores such as ZaoZuo and the construction of starchitectural buildings, including the Minsheng Contemporary Art Museum and UCCA Center for Contemporary Art whose sleek, shiny surfaces obscure and detract from the original building.

The fact that 798 sits 'cheek by jowl' with a car factory is perhaps not a coincidence. Taking up Flusser, Michael Faciejew (2013) discusses the factory's inevitable dematerialization as production culture shifts from material products to more immaterial research and development, and as Artificial Intelligence (A.I.) increasingly replaces human labour. His case study of Ferrari's 2009 assembly factory in Maranello, Italy highlights how the building's reflective surfaces and open-plan workspaces mirror our current digital age, producing what Beatriz Colomina has described as spatial "anaesthesia" (2019, p. 31) Such buildings are devoid of intimacy; they operate within an infrastructural ethos that minimizes friction and difference, ultimately treating bodies as a means to capitalist ends. This doubled subject, "virtual and physical," is increasingly disengaged from their surroundings: a body and a "credit card" only (Faciejew, 2013, p. 60). Infrastructural spaces that eliminate friction further abstracts and de-politicizes the built environment, continuing the uncoupling of politics from the factory that began during the modernist turn. In Beijing, this spatial abstraction has further implications, as it speaks to a shift away from the commune (as exemplified in the co-constructed East German/Chinese factory) towards a more neoliberal socio-economic ideology, observable through 798's transformation into "part art-zone, part shopping center" (Decipher City, 2018). In taking up the architectural language of technological triumphalism, 798 reduces the viewer to someone who "need not engage with the material world" other than to purchase a product (Faciejew, 2013, p. 62).

5. Chu Yang explains, "in China it is a tradition to name state-run factories with digits, and those beginning with 7 are military ones." She goes on to detail how 798 arose out of the Soviet Union and China's Socialist Unification Plan, and was meant to symbolize "socialist cooperation and success." See Yang, Chu. "Industrial Dispute: The Rise and Fall of Beijing's 798 Art Complex." *Elephant*. July 25, 2022. https://elephant.art/industrial-dispute-the-rise-and-fall-of-beijings-798-art-complex-25072022/.

FIGURE 8: 798 Art Zone, Beijing, 20 July 2012. Image © Nikolaj Potanin from Russia, CC BY-SA 2.0 <https://creativecommons.org/licenses/by-sa/2.0>, via Wikimedia Commons. https://commons.wikimedia.org/wiki/File:In_798_Art_Zone_(8006744324).jpg.

FIGURE 9: Artist unknown. Venice Biennale, *The Milk of Dreams*, November 2023. Photo: [Kohleal, J. November 3, 2023].

CONCLUSION

What kind of citizen is being produced through 798 and the Arsenale? Writing about post-Communist collapse in Romania, Anca Pusca (2010) observes, "the ruination of the human body—both physical and psychological—went hand-in-hand with the ruination of space" (p. 241). Though former factories are being given a second life via art and culture—and while this clearly has environmental and economic benefits—it is not clear that the human bodies living adjacent to and moving through such spaces are any less bored and alienated. In many respects, the lure of the factory and its ethos remain strong: Timo Luks (2013) describes the factory's built environment as a "master machine" whose socio-spatial arrangements create the absence of friction through alienation and military-like control—an apt metaphor for the Arsenale, with its historical and continuing ties to the Venetian Navy (p. 276). And Luks' bodies—as cogs in the factory's wheel—are not only divorced from their senses but also denied intimacy and agency: where the former 798 was a community-focused, future-oriented infrastructure, 798 as it exists today is corporatized, an infrastructure that "poison[s] and dispossess[es]" as opposed to one that "build[s] ecologically sustainable and decolonized futures" (Cowen, 2017, para. 16).

And what of the type of art is produced by and through these corporatized infrastructures? For Warhol and Landy, the factory provided a symbolic space in which to rebel against the prevailing beliefs or rituals of their time (Abstract Expressionism and over consumption, respectively). Importantly, their gestures subverted global industrialization by creating intimate infrastructures—concrete spaces formed through human relations, or what Lugones (2003) might characterize as "body-to-body engagement" (p. 160). Producing 'intimate spaces of difference' holds emancipatory and revolutionary potential, as it is intimacy's coupling with the everyday and lived experience that in turn embeds and creates possibilities for change (Alfaro, 2021). While the Arsenale and 798 may not provide 'official' spaces in which to produce minimal difference, there are cracks and crevasses in which such modes of being can be fostered. At the Arsenale, for example, stickers were covertly stuck to different pieces of infrastructure, such as exposed pipes and retaining walls (figure 9); roughly translated, they read, in part: "contribute to a public opinion / write whatever you want [*contrtibute nare la una opino feno pubta / opscrivette volete*]," a reminder, perhaps, of the political and emancipatory potential of the factory. ■

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URBAN BLUE SPACES

FOR DECOLONIAL PLACE-MAKING

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ABSTRACT: Spatialization of urban waterfronts, while often neglected, can be harnessed for various individual and collective purposes. Waterfronts have a unique ability to create contemplative space which transcends time. With curation, these spaces could potentially challenge Settler narratives and create a space for decolonial thought and reflection. The display of Indigenous art in riverfront spaces, such as the Tawatinâ Bridge, in Amiskwaciwâskahikan (Edmonton, Alberta) represent a possible example for this contemplative blue space spatialization. In employing a visiting methodology this paper uses the Tawatinâ Bridge as a site of theorization for decolonial blue space. Through employing Lefebvre's trialectic and Maria Lugones' Streetwalker theory this paper analyses the potential capacity of curated urban blue spaces to evoke meaningful thought and disrupt Settler status quo.

KEYWORDS: URBAN BLUE SPACE; DECOLONIZATION; DECOLONIAL SPACE; CONTEMPLATIVE SPATIALIZATION; RIVERFRONT DESIGN; VISITING; RELATIONALITY; WATER CULTURE.

URBAN BLUE SPACES FOR DECOLONIAL PLACE-MAKING

Emily Quecke

URBAN BLUE SPACE can have a positive influence on individual and collective well-being (Anderson et al., 2019; Brückner et al., 2022; de Bell et al., 2017; Völker & Kistemann, 2015). Many cities are located on water bodies because of the historical importance of water as a means of transportation; blue spaces have the potential to positively impact urban spatialization when fully harnessed (Kurochkina, 2020). Despite this historical connection to water bodies, Western Settler ontological perspectives commodify and quantify water as a non-living resource that can be bought, sold, polluted, and used. This is well illustrated through the relationship or lack thereof between modern city inhabitants and urban blue space.

In the case of Amiskwaciwâskahikan (Edmonton, Alberta), the Kisiskāciwani-sīpiy (North Saskatchewan River) is a prominent feature of city life; the river and river valley are central to Edmonton identity, culture, and history. The river originally served as a vital transportation network, and now the expansive natural space around the river is 22 times larger than New York's Central Park and plays a central role in festivals and leisure activities for citizens (Edmonton River Valley Conservation Coalition, n.d.). In particular, the river is a link to past and ongoing relations with the Indigenous Peoples of this area.
This paper will look at how spatialization of the river valley and riverside spaces can be used to further decolonization through the case study of new river crossing infrastructure: the Tawatinâ Bridge. This bridge utilizes the semiotics of urban blue space combined with art to bring to the foreground the historical and ongoing Indigenous presence and practices over the other layers of identity within this space. While the bridge itself was never meant to be decolonizing, the semiotics of the bridge and construction choices influences the meaning and perception of the artwork in this blue space. This paper seeks to understand how competing ontologies have converged into this infrastructure project and its associated public art and commissioning ceremonies to create more than a bridge or a decorated piece of civil engineering to aim for decolonial place-making.

TAWATINÂ BRIDGE

The Tawatinâ ('Valley' in Cree) Bridge (Figure 1a) was constructed as part of the new Light Rail Train (LRT) line. It is a shared-use path bridge underneath the rail deck, similar to the Dudley Menzies bridge that was created for the first Edmonton LRT line built in the early 1990s. It is important for this paper to note that at the time of writing the LRT is not yet fully operational over this line. Further, this bridge's primary purpose is transportation (LRT, biking, walking). As seen in Figure 1b, it is located just east of the downtown core and connects residential neighbourhoods to the start of Edmonton's Chinatown (City of Edmonton 2022). The project included a substantial public art budget as required by municipal council policy number C458D (Edmonton City Council 2021).

To make a cultural connection over this literally connecting space, the bridge was decorated with a unique art installation. It "features over 500 paintings of the River Valley's flora and fauna, and the First Nations, Métis, and settler histories of the area" (Garneau, sic n.d.). Various artists were featured in this project, led by David Garneau, a local Métis artist. Garneau is the descendant of a prominent Métis family, after whom an Edmonton district is named (Edmonton Arts Council 2021). Settler-Indigenous reconciliation issues formed a focus for the art, following the 2015 Executive Summary and 94 "Calls to Action" of the Truth and Reconciliation Commissions inquiry into the impacts of forced Indigenous residential schooling and the cover-up of maltreatment and brutality at these institutions in Canada (TRC 2015a; 2015b). Although it is an unremarkable engineering solution, the semiotics of public art Tawatinâ Bridge and the public events, naming and discourse around it have been noted for the ways that the bridge makes tangible the historical and ongoing Indigenous presence in the river valley and reaffirms this aspect of the identity of the city's urban blue space (Edmonton Arts Council 2021, City of Edmonton, 2022).

By using art to bring Indigenous histories and culture to the forefront surrounded by urban blue space, this bridge offers a unique connecting place to recentre decolonization in the minds of Settler Edmontonians. Located in the river valley, the Indigenous art decoration provides a unique place for the creation of Indigenous-Settler relations and reconciliatory contemplation. As such, the bridge has two parallel purposes: physical connection across the river and a theoretical connection across cultures.

FIGURE 1a: Distance picture of the Tawatinâ Bridge [Quecke, E. August 15, 2023].

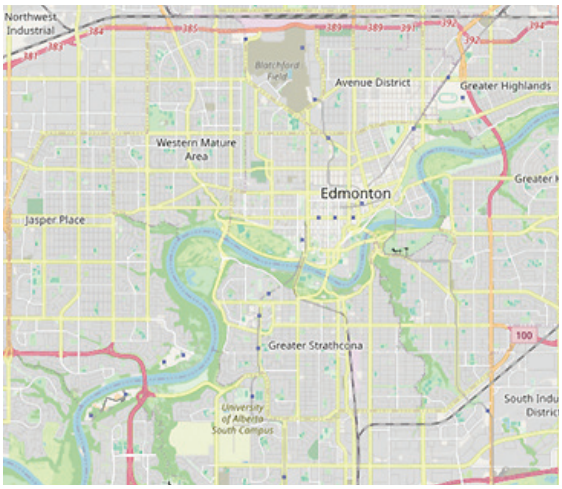

FIGURE 1b: Map of Edmonton with Tawatinâ Location. Taken from Open Street Maps

WHAT IS URBAN BLUE SPACE?

Urban blue spaces refer to spaces bordering on the banks of water bodies in urban centers. This can refer to coastal waterfronts or river and lakefronts. Blue spaces are an integral part of urbanity due to their historical significance for transportation and trade:

> Most large cities were built on the banks of rivers, which, being a natural symbol of the city, to a greater or lesser extent influenced the formation of public urban space. (Kurochkina, 2020, p. 2)

Despite the commonness of blue space, the use of urban riverfronts and waterfronts, especially inland waterways such as rivers and lakes, are often neglected from health and social theorization. Green space, on the other hand, is abundant in social theorization (White et al., 2020). The salutogenic effects of urban green and blue spaces share many similarities; however, there are still clear differences between the way the two spaces impact urban life (Brückner et al., 2022; de Bell et al., 2017; Poulsen et al., 2022). There is "growing evidence that compared to green spaces, blue spaces may be particularly important for promoting positive social relationships" (White et al., 2020). While some authors suggest the differences in auditory and visual experiences of the two as well as ontological perceptions around water are potential elements of this variance, the causes of these different impacts are still being explored (Völker & Kistemann, 2015). However, these are not just amenities or pleasant stress reducers. Blue spaces foreground the role of water as part of ecological systems services locally and on an environmental scale. As with green spaces, the use and meaning of blue space changes with the seasons, turning into extended white space (Chapman et al., 2019). Further work on social uses of the riverfront must consider seasonal changes.

URBAN BLUE SPACE IN EDMONTON: COMPETING ONTOLOGIES

The curving banks of the Kisiskāciwani-sīpiy in what is colonially known as Edmonton, Alberta, have served as a central meeting place and have been the site of social space creation since time immemorial (Wonders, 1959). Social space refers to the ways social groups both use and perceive a space as a collective; the act of creating a social space is complex, fluid and ongoing. Before the introduction of settlers on this land, this area at the northern edge of the Great Plains and the southern edge of the Boreal forests was used as a meeting place for many nations (including Cree, Blackfoot, Métis, Nakota Sioux, Iroquois, Dene, Ojibway/Saulteaux/ Anishinaabe and others); next it was used as an important trading fort for early Canadian Settler colonization; now the river sits at the heart of the city as it has sprawled outwards (Edmonton River Valley Conservation Coalition, n.d.). Modern day relationships to the river are diverse and dynamic. It is important to note that while I am referring to the river as a blue space, it is not strictly blue, and this colouration impacts our social relation to the river. Economic change has impacted the use of many waterfronts which shifted from being working ports, which despite often being adjacent to downtowns were traditionally separated from the more desirable areas of cities. They have become available for redevelopment (housing, leisure, new urban districts) but have required remediation of polluted land and water and acceptance by society. As Pitt (2018) discusses, when urban blue spaces are not conventionally blue, the cleanliness and purity associated with water bodies is muddied:

> Murky, more brown than blue watery environments demonstrate a complexity and ambiguity of relationships to water, finding it attractive and repellent, risky and relaxing (ibid, p. 162).

As Pitt mentions, this complexity of colour also leads to a complexity of our relationship with it. Despite this potential complexity, there have been clear attempts to foster a better relationship between the city's inhabitants and visitors with the river.

Recent examples of attempts to reinvigorate the use of urban blue space in Edmonton include the reinvigoration of river paths, especially around the city's other new bridge (the Walterdale Bridge), the renovations and increased promotion of a heritage exhibition of Settler-colonial buildings and activities at Fort Edmonton Park, the creation of an Indigenous wellness centre which incorporates Indigenous ceremony for cultural, spiritual, emotional and physical healing and the creation and promotion of the new Tawatinâ pedestrian and light rail bridge (City of Edmonton, 2022; Edmonton River Valley Conservation Coalition, n.d.; Garneau, n.d.; Lamb & Bremness, 2022). From this list, there may appear to be a clear focus on Indigeneity and reconciliation (TRC 2015a; 2015b); what is not clear, however, is how effective these initiatives are at genuinely moving reconciliation, cultural recognition and inclusion of Indigenous values and economic opportunity forward in Canada. Furthermore, it could be argued that river front reinvigoration received an extra boost during the COVID-19 pandemic protocol as citizens were encouraged to spend more time outside. There has been a large increase in citizen's use of the river via active water vessels (kayaks, paddleboards, etc.) for recreation in recent years. This has partly been accomplished through disproving local myths about the quality of the water (EPCOR, n.d.).

Despite this reinvigoration, there are still signs of the continued competing Settler and Indigenous ontologies and histories throughout the city's riverfront spaces. One such spatial symbol is the Rossdale power plant and water treatment plant. These plants still stand and are 'iconic' to the Settler Edmonton riverfront. However, the construction of these plants was done over Indigenous graves, despite finding grave sites in this location during early construction over 100 years ago, they have continued to upgrade the facilities and have uncovered more graves (Stevens, 2004). These plants sit on important Indigenous sites

yet bear no clear mention of the history on which they rest. Within this same sacred space, there is also a history of more recent Settler-Indigenous conflict around the Pekiwewin protest camp of 2020 (Omstead, 2020) on the traditional riverfront site of Indigenous habitation where thousands traditionally met each summer.

METHODS

What can be learned about the creation of contemplative urban blue spaces for decolonial thought and action from one infrastructural site and associated public art program such as a bridge? The site of this evaluation is the Tawatinâ Bridge in Edmonton, Alberta. For this work, I have employed a visiting method within a decolonial, feminist methodology. Visiting as a feminist practice or method as developed in Tuck et al. (2022), is a practice of occupying place, with human or non-human entities to invite learning through reflexivity, mindfulness, and sensory experiences:

> Visiting is a practice based upon consent, allowing to know and unknow, considering a willingness to receive visits as gifts, and eventually a responsibility to continue the perpetuation of stories facilitated through visiting… visiting makes possible a relationship to place, to history and to each other that is not constrained by the limits, structures and frameworks imposed by the settler state or by the logics of settler colonialism (ibid, p. 2,4).

The practice of visiting as articulated above reflects its ability to create that temporal experience in space. This temporal and spatial experience is crucial to the objectives of this paper. Visiting also allows the visitor to pick up on the rhythms of street life that flow around the researcher. Rhythm is especially salient for this project as it reflects the rhythm of flow created by a river. For the purposes of this work rhythm is analyzed only through the context of visiting. Lefebvre's concept of rhythmanalysis, while outside of the scope of this paper, could be future avenues of inquiry to supplement this work (Lefebvre 2004).

To enact this visiting methodology, I visited the bridge site on two different occasions. For each visit, I went alone and brought a diary and camera. These visits took 30 minutes each; during the visits, I walked the length of the bridge and allowed the experience to shape naturally. During this process I engaged all senses and took notes regarding thoughts and sensory experiences which arose during the visits.

At this time, I, the author, would like to place myself in this research paper. This process of self-identification in research follows the feminist and decolonial praxis which serves to include the subjectivities of the researchers within this analysis (Absolon and Willett 2005). As much as academia strives for or claims to objectivity, every aspect of research entails some level of value judgments which are influenced by personal positioning. I come to this work as a mixed-race BIPOC Settler scholar on Treaty 6 territory in (so-called) Canada; I have always felt and nurtured a deep personal connection to the land and the water, but this connection is fraught with complexities as I navigate my settler identity. My experiences as a woman and a visible minority in academia and the male-centric field of engineering inform my decolonial, Marxist-feminist perspective. My work has led me to community-based research in which I strive to centre relationality and reciprocity and an ethic of care. Through this work I have been gifted glimpses into the vibrancy of Indigenous epistemologies and ontologies, but I recognize that I have no claim to Indigeneity and share here only knowledge which has been made freely available and use my own experiences and knowledge to inform the analysis.

Analysis for this work is understood through employing Lefebvre's trialectic and Maria Lugones's Streetwalker theory. These concepts are discussed in greater detail in a later section. Briefly, the trialectics of space can be summarised as: spatial practice, representations of space, and spaces of representation (Lefebvre 1991). This relates to spaces as they are perceived, conceived, and lived. Streetwalker theory, however, is a tool to ground my use of theorists such as Lefebvre into real life and to bridge the practice of visiting with theory. Within Lugones' streetwalking theory, she advocates for the practice of hanging out which "permits one to learn, to listen, to transmit information, to participate in communicative creations, to gauge possibilities, to have a sense of the directions of intentionality, to gain social depth" (Lugones, 2003, p. 209). This hanging out practice has clear connections with the Indigenous feminist visiting practice.

Both Lugones's and Tuck place an importance on actively participating in the relationship built during the process for the method to function as desired. Further, they both place an importance on the intentions of the visitor/streetwalker to willingly and actively listen and participate. But beyond the practice, Lugones provides a theory to connect this hanging out with resistance, and this "theorizing of resistance thus intermingles in the spatiality of the street" (Lugones, 2003, p. 210). Through this theoretical work, I also build the idea of confluence versus clash. Joanne Barker builds the idea of confluence as an analytic in Indigenous feminisms wherein the flow and relationality of water can be used to "direct us to think about reaction, and specifically, engagement with life around us" (Barker, 2019, p. 15). Confluence refers to a natural flow and weaving together of different parts to make something new, while a clash evokes dissonance, two things meeting but remaining starkly separate.

VISITING

While visiting the bridge, there was a clear clash between Settler modernism and Indigenous cultures. While I say clash as the most operative term, there were also confluences. My two visits represented two very different atmospheres of the bridge. The first day was brisk, with a sharp wind. This was on a Sunday, April 2, 2023, neither a workday nor a special holiday weekend locally. The second day was the warmest day of spring so far and the Sunday of a local long weekend holiday, April 9, 2023. As such, the second day was much busier and more vibrant. Both atmospheres gave me a different kind of visitation which added different elements to my experiences. Table 1 summarises the sensory elements of my experiences.

	FIRST VISIT	SECOND VISIT
Tastes/ Smells	Fresh mulch, frost	Grass, perfume from other pedestrians, spring water
Sounds	Rumble of train over head, light wind, dripping water from melting snow on upper deck, conversations, occasional bikes, one bike rider was playing music	Constant whizzing of bikes and scooters, conversations, ducks/ geese, the rushing water could be heard faintly, no trains passed by during this session
Sights (Other than permanent fixtures)	River is still mostly iced over, starting to break, there was litter on the river ice, but the bridge was completely clean	Large groups of families coming to specifically see the bridge, biker stopped to take a picture of downtown with his bike in it, couples discussing the art

TABLE 1: Summary of Field Notes and Visiting Experience

FIGURE 2a: View of Bridge Looking North from south end [Quecke, E. April 2, 2023]

FIGURE 2b: View of bridge looking South from near South end [Quecke, E. April 2, 2023]

Looking directly down the bridge in both directions as seen in Figure 2, the concrete constructions, along with the fence railing, create a tunnel-like sensation. This limits visual and sensory access to the blue space itself and creates a sense of isolation. The contrast between the very industrial, grey slabs of concrete and the vibrant pieces of art on the roof of the walkway stand in direct contrast. As a caveat, there are wooden planks on the bridge deck, which act as a buffer to this perceived contrast, but the abundance of concrete overhead and pillars provide a notable industrial aesthetic. This contrast creates a feeling of dissonance rather than one of harmony or confluence. Standing on the spanning parts of the bridge, away from the large concrete pillars that hold up the bridge there is an airier feeling and more of a connection to the river around.

Looking out perpendicular to the bridge, there are very different perspectives depending on if you look east or west, also based on where you are positioned along the deck of the bridge. The view looking east, seen in Figure 3 a, demonstrates a nearly natural horizon with trees and little development. To the west, however, as seen in Figure 3 b, there is downtown and the resting place of a heritage riverboat. This illustrates a markedly Western, Settler skyline. Standing in the middle of the bridge deck, the looming concrete roof and the guard rails create a strong separation between self and the blue space (Figures 3a and 3b). This is in contrast with Figures 3c and 3d which are taken from the edge of the rail where there is a greater connection to the river and the skylines.

FIGURE 3a: Eastward view from bridge midpoint [Quecke, E. April 2, 2023]

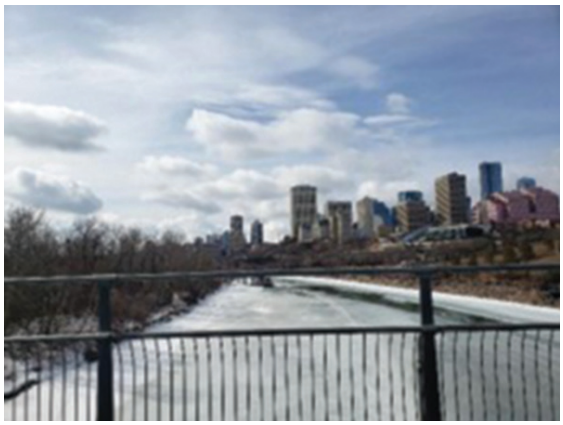

FIGURE 3b: Westward view from bridge midpoint [Quecke, E. April 2, 2023]

FIGURE 3c: Eastward view from bridge midpoint unobstructed by rails [Quecke, E. April 2, 2023]

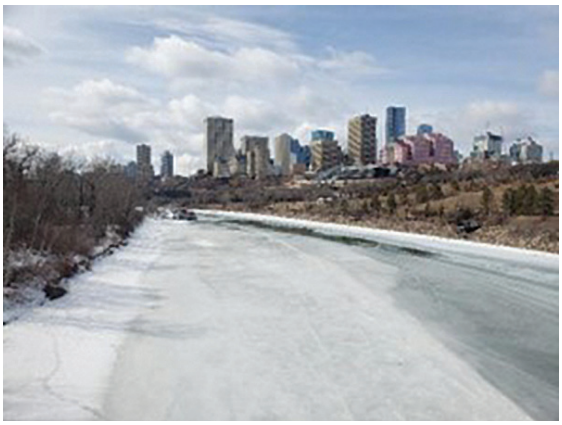

FIGURE 3d: Westward view from bridge midpoint unobstructed by rails [Quecke, E. April 2, 2023]

There were a few modern fixtures of note. One very prominent fixture that can be seen on the bridge is the presence of security cameras, seen in Figure 4a. These cameras evoke a feeling of insecurity, control, and authority. This was one of the first specific elements I noted during my first visit. Another modern fixture, presented in Figure 4b, is a water fountain. This connection between the bridge, surrounded by water, and cleaned, processed water for drinking is jarring. The water from that fountain comes from the same river over which the bridge stands, and yet one is clear, chlorinated, and safe to drink, and one is not. This also brings about senses of temporality in space -- at one time the river was likely safe (or at least safer than now) to drink from directly. With both fixtures we must ask who they are there for. Who are the security cameras meant to protect? Hypothetically, they may reflect an ongoing Settler anxiety over-sharing power and over ceding even semiotic space in public art that reminds people of the still-fresh revelations of crimes against Indigenous populations. For the water fountain, why is this a priority location for clean drinking water when there is a nationwide water access crisis for Indigenous communities? The urban wealth of sanitation and amenities in Settler Canada strongly contrasts with the precarious civil engineering, lack of sanitary infrastructure, polluted groundwater, and lack of consistent and safe drinking water of Indigenous reserves in Canada (Castledan et al. 2017; Mah et al. 2018; Wilson et al. 2021; Neegan Burnside 2011; Reading 2011). This contrast comes from historical and ongoing racist policy and competing jurisdictional priorities which favour Settler society.

The art has many recurring themes, such as maps with land divisions and waterways, art in the shape of water droplets or water vessels (canoes, etc.), and animal-themed art, such as the series of animal eyes. Some examples of these themes are shown in Figure 5. These represent just a few of the art pieces and a few of the recurring themes that seemed to directly relate to the unique water situated position of the bridge. Many of the art pieces had some direct or implicit connection to water

FIGURE 4a: Security Camera on bridge deck (1 of 2) [Quecke, E. April 2, 2023]

FIGURE 4b: Drinking fountain on edge of bridge entry [Quecke, E. April 2, 2023]

FIGURE 5a: Example of artwork displaying maps with divisions and waterways in animal shapes [Quecke, E. April 2, 2023]

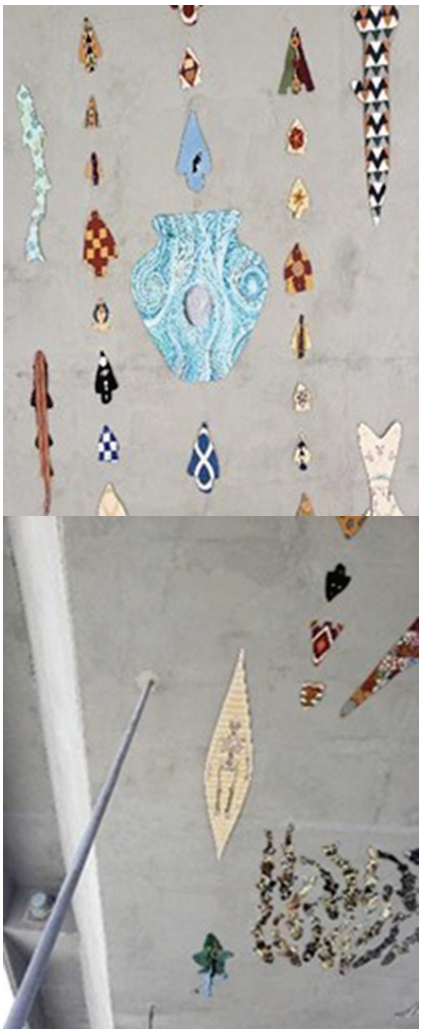

FIGURE 5b: Example of water prominent artwork [Quecke, E. April 2, 2023]

DISCUSSION

Why focus on blue space for decolonization? What does or what can decolonization look like within public space? Because waterways are a public space and cannot be privatized in Canada (Government of Canada, 2018), waterways present a uniquely public locale for this work. Referring to Barker's piece on confluence as an analytic, she provides a deeper understanding of what true decolonization could look like. She reminds us that decolonization cannot be found through naming or mere recognition but instead needs to include some element of change, and we can understand this change based on water and confluence (Barker, 2019, p. 6). In referencing an important Indigenous activist, Lilla Watson, Barker explains that "genuine decolonization will happen as our movements address our shared conditions of oppression" (Barker, 2019, 29). This idea of sharing and weaving a new thirdspace is central to many articulations of decolonization.

In connecting Barker to Lefebvre's trialectic we can build upon this concept of thirdspace. In "The Production of Space" (1991) Lefebvre conceptualizes the generative and ongoing production of space through a trialectic: spatial practice, representations of space, and representational spaces (Lefebvre, 1991, p. 33). In this trialectic the first relates to the physicality and social performance in a space, it is the practises of a society in specific spatial context. In terms of a bridge, how is it used by society, by whom is it used, when and for what purpose, how does this space fit into the daily practice of society? Representations of space refer to the conceptualization, this space lives in the mind and reflects what is conceived to be the social use of this space. The third trialectic, representational spaces, represents the space as it is lived, this is a combination of the other two elements of the trialectic as both the physical and mental representation of the space influence how it is experienced and lived. This is the space of art. This third space is where a decolonial dialogue can be formed in space, as this element "is the dominated - and hence passively experienced - space which the imagination seeks to change and appropriate" (Lefebvre, 1991, p. 39). In taking all of these elements into consideration for the production of a space, the "textures" it creates "implies a meaning" for the individuals and collectives which use the space (Lefebvre, 1991, p. 132). Theoretically, a space can be produced in which that created meaning is a decolonial one.

Decolonizing Blue Space and Blue Space for Decolonization

While free Indigenous art installations can be a tool to foster cultural understanding and connections, I argue that placing this in urban blue space is a more effective tool for reconciliation and cultural conversations (Parsons et al., 2021). In their study, Völker & Kistemann (2015) investigate the health-relevant, including social health, qualities that are both available to urban blue space and green space use and the aspects which are potentially unique to blue space. To do this, they conducted studies in Cologne and Dusseldorf in Germany, which are marked by notable urban riverfronts. Their analysis used the categories of experienced, symbolic, social, and activity space, which closely resembles Lefebvre's trialectic. From this analysis, they found that the symbolic and experienced spaces of waterfronts create a uniquely contemplative experienced:

> Green spaces indeed provide diversity in the forms of perception…but they cannot attain the same symbolic-semantic influence as water. Within urban blue space, the water, comprises the entirety of space and fills it completely. (Ibid, p. 199)

Building on the idea of the water entirely filling the space, the authors go on to explain that it is the merging of panorama with urban blue space can create a unique space for contemplation.

> The vastness of space and the panorama of the urban blue space, supported by 'active passivities' (sitting, standing), provide the opportunity for contemplative experiences reflected in the expressions of urban blue space visitors…. Contemplation in the green spaces seems to be not as pronounced as in the blue spaces." (Völker & Kistemann, 2015, p. 201)

In considering this potential contemplative space created in urban blue space, we can return to the analysis of the specific case of the Tawatinâ Bridge. The concept of water merging to the sky where the blue seems to fill space completely, as expressed by Völker & Kistemann, does not generally work from the bridge, especially to the west with the downtown skyline. With the coupling of the isolation created from the concrete and rails, the bridge fails to fully use the potential of blue space to create contemplative space. Furthermore, in with the presence of abrasive and uniquely colonial elements such as the security cameras and train rumbling overhead, there is a lack of confluence between the Settler occupant in space and the Indigenous art. Yet despite these less-than-ideal physical elements of the space, there is still facilitation of 'active passivities' through the width of the bridge deck, the numerous benches, and the art as a way to spend more time in the blue space. In this regard, the spatial practices both succeed and fail at creating a contemplative decolonial space. However, it is important to note that the Tawatinâ Bridge is an everyday space experienced both in passing (at different speeds, either on bike or foot) or leisure. The experience and contemplative potential of the user will depend on the purpose of their bridge use.

Thinking of representations of space, the presence of Indigenous art that is themed around the river presents alternative ontologies for the passersby to contemplate. The act of using an Indigenous name for this bridge also has a decolonial effect on mapping presences around these blue spaces and representations of this space (Shields, 2022). In their

semiotic dimensions, many of the art pieces reflect decolonial and thoughtful representations of space. For the scope of this paper, two pieces of art are analyzed in more detail (Figure 6). The two pieces of artwork chosen for further discussion coincidentally (or not) are both the pieces adjacent to the security cameras. In the first piece in Figure 6 a) there is an imitation of a coin depicting a handshake between Settler and Indigenous representatives. The coin, being referenced, was awarded as a treaty signing gift. As such the coin represents conflict and contradiction. It represents the intent of the treaties and the deception and colonial violence that has happened behind and since the treaties. Here, the confluence of the two cultures that was originally implied by the coins and the treaties could be taken as a symbol for the confluence and contemplation intended by the bridge. However, its placement near the security camera is both jarring and telling. Surveillance is related to the exercise of power and makes visible the power dynamics between the Canadian Settler state and Indigenous Peoples in Canada (Foucault, 1995). During my site visits, this contrast evoked a sentiment of Settler-colonial control which skews the artwork towards the conflicting representation. When thinking about Lugones's theory, I have to ask: who put the cameras there and who are they for? Thinking from a street perspective even if they are for protecting the art from vandalism (their purpose is unclear), they still evoke a sense of bureaucracy and control. This could be seen as a performance of the artwork, creating a dialogue between the current control of the Settler colonial state and the histories of control within that site. While this performance could create a deeper decolonial discussion, I question if this kind of performance is one that would resonate in a more passive and contemplative space.

Another provocative artwork features a water tap within the confines of a kettle, representing boil water advisories on First Nation reserves (Figure 6 b). This piece encourages the onlooker to confront Settler versus Indigenous realities. Especially around the river which serves as the source of drinking water for Edmonton, this image can confront Settler narratives, and could make meaningful contemplation for decolonial thought. Once again, however, the placement near the security camera is unfortunate and heightens the impact of this piece not as confluence, but of division.

The spaces of representation are the more complicated section of analysis for this case study; however, it also sits at the crux of using and designing blue spaces for decolonization. Lefebvre (1991) describes this third element of a spatial trialectic as:

> …space as directly lived through its associated images and symbols…Thus representational spaces may be said, though again with certain exceptions, to tend towards more or less coherent systems of non-verbal symbols and signs. (ibid, p. 39)

FIGURE 6a: Artwork of coin depicting handshake between Indigenous and Settler representatives [Quecke, E. April 2, 2023]

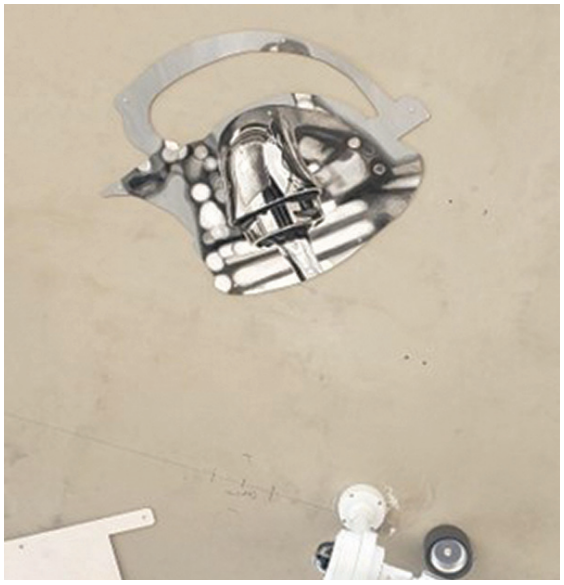

FIGURE 6b: Artwork depicting a water tap within a kettle [Quecke, E. April 2, 2023]

With this third element, we can move beyond the physical space or the mental spatial practice to ask: is the decolonial intent of this space connecting with passersby, is the decolonial intent being lived? Are the symbols influencing the imaginaries of those within the space?

This is where the symbolic, virtual, and latent power of the blue space itself is most important. Water represents confluences and flow, water is timeless; it flows throughout our spaces just as it has done for millennia. Is that symbolism, combined with the Indigenous art creating a decolonial impression which can be carried forward into all elements of life? Apart from the water, the bridge is also a source of symbolism. In this case the bridge is very high above the water and does not afford any direct link to the water for the user. Bridges as infrastructure can be conceived of as a super-object; they "are extraordinary yet routine ingredients of everyday life that anchor interaction and communication through their grounding in past processes and their anticipation or projection of a normative present state into the future" (Shields, 2021, p. 348). This complex balance of bridges as a real, tangible piece of infrastructure both also a virtual connection to spaces and temporality imply that bridges could be a pivotal space for decolonial praxis.

CONCLUSION

Within the scope of this paper the true decolonial ability of the bridge can neither be confirmed nor denied, but it is certainly possible to see how space has the potential to use symbolism to create change. This potential is also highly dependent on the future of the bridge. The bridge is an example of new infrastructure and as such it seems to have been "inaugurated as heroic evidence of progress" (Shields, 2021, p. 358). Progress and reconciliation are only potential at this point and is yet to be seen. When considering the rhythm of use that comes with novelty fading into established infrastructure, the capacities and influence of the bridge may change over time. It is evident that urban blue space can be used for decolonial contemplation and building confluences. For the Tawatinâ Bridge to succeed in this endeavour, elements such as the harsh concrete façade and the security camera's need to be reconsidered. Further, while the practical reasons for combining the pedestrian bridge with the LRT system is clear, the periodic noise and vibrations from the train disturb the contemplative potential of the bridge. ■

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TO SUPPORT THE BRAND OF A WINTER CITY

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ABSTRACT: Cities during winter are challenging environments—as the landscape gets cold, people turn inward, and social interactions and access to nature reduce as we become more insular. There are winter cities worldwide, and how winter is perceived varies contextually and culturally. How our built environments and governance structures address this socially meaningful aspect of our environment also varies. With the international movement of Winter Cities, there is a challenge with still many unanswered questions on how to create livability in urban areas with extreme weather, especially in highly spatialized, privatized and car-dominant planning structures, Such as Canada. It is challenging for cities to build environments and governance structures that adapt to changing seasonal patterns, enticing people to interact with the changed landscape and continue social interaction. Cities are adopting strategies, policies and branding to instigate these changes. This essay references material culture and governance structures that promote year-round socio-ecological connections. It gives examples of how city-scale material culture is needed to support the brand of the winter city and combat the spatializing effects of Canadian planning structures. These examples demonstrate how designing for winter first or as a prominent design feature can continue those socio-ecological connections in challenging climates.

KEYWORDS: WINTER CITIES, ADAPTIVE DESIGN, ADAPTIVE PLANNING, SOCIAL-ECOLOGICAL SYSTEMS, DESIGN INTERVENTIONS, SYSTEMS THINKING, RESILIENCE, ADAPTIVE GOVERNANCE, WINTER CULTURE, WINTER DESIGN.

MATERIAL CULTURE TO SUPPORT THE BRAND OF A WINTER CITY

Danielle Soneff

THE MATERIAL CULTURE of a city during winter— including gardens, mobility networks, and warming huts —voices an empathic response (or the lack thereof) to the lived experience in winter cities. Individually, people adapt to changing weather. In the fall, the ritual is to bring out warmer coats, mittens and scarves. These objects define an individual response to winter, but what does that look like for a city? One of the most challenging aspects of Canadian cities is the vast spatialization within and between them and the variable seasonality of the climate, especially in winter. As the landscape gets cold, people turn inward, and social interactions and access to nature reduce as we become more insular. This hibernation is especially prominent in places with planning structures that prioritize spatial separation, privatization and car dominance. It is challenging to plan and design systems that adapt seasonally and that prioritize a need beyond the most basic functional requirement, such as public health considerations, and link functional infrastructure to include access to social connections and nature. However, our built environments profoundly affect our mental and physical well-being. Therefore, the built forms of our environment and their governance, known as material culture, play a vital role in the shaping of the daily actions of people and the forming of culture.

Norman Pressman presented one analysis of this urban planning and development challenge in the 1980's. Winter City (WC) was a popular theory and then developed into an international movement. Pressman stresses the importance of creating cities for all seasons and that it must "encompass the entire field of human settlement patterns, including social, political, cultural, and economic structures" (Pressman 2005, pg 139). Pressman means that the intent behind every aspect of our collective settlements is the foregrounding of the effects of climatic variables that define much of our daily lives and to consider and address its impacts in all aspects of our society. It is not an afterthought but a starting point. There are two definitions to consider: a *winter city*, a settlement with physical characteristics of snow, cold temperatures, and reduced daylight hours for a substantial part of the year, and a *Winter City*, a settlement participating in an international movement towards livability in extreme weather (Stout, 2018, pg 6). The Winter City Movement has principles of inclusion, equity, mobility, and sociability. When big picture, holistic, or complex planning terms get coopted into this ubiquitous branding term, it can become reductive and thought to be simply enacted, resulting in a lack of situated quality. Winter City planning needs to be responsive to specific locational contexts, as not all winter cities are the same, and our experiences are shaped by perception and reality (Pressman, 1995, p.15). It is essential to acknowledge that winter lifestyles and perceptions exist and need to be approached in vastly different ways to contextualize a genuine sense of place.

How cities have attempted to integrate the principles of the Winter Cities Movement, have varying outcomes and legacies. This paper discusses examples of contemporary Canadian Winter City planning documents, and I argue that there has been something lost between the academic research translation to the planning documents and how they are enacted. As a result, the Winter Cities concept has become more of a top-down branding exercise rather than a substantial approach to planning, development and governing theory for cities in winter. I then draw on examples of historical and contemporary examples from Europe and Scandinavia of material culture that can address some of the spatialization challenges found in Canadian cities and adaptive governance structures that help connect people to socio-ecological networks year-round.

THE WINTER CITY MOVEMENT IN CANADA

Since 2010, the Winter City movement has been a growing trend in Canada. Municipalities are creating Winter City strategy documents and adopting policies. In many respects, these documents represent a top-down branding initiative intent on capturing economic investment and tourism. However, built forms that represent an empathic response to the realities that climate brings to daily lives are not a prominent aspect of plans, designs or governance in Canadian cities yet—this would take the form of material culture and governance policies.

Canadian planning theories of the 1970s and 80s attempted to remove climate from the environment. The legacy of which we "still live with the myth of the weatherless society" today (Zardini, 2005). The weatherless 15-degree pedway system of elevated walkways connecting downtown buildings (Scott, 2016) was concluded, in hindsight, to lead to the degradation of urbanites' tolerance to weather and the economic and vitality depletion of the main streets that this perspective has cultivated. In 2013, the City of Edmonton, Alberta, adopted Winter City Guidelines and a policy in 2016 requiring consideration of a winter lens on all development. This strategy has supported efforts of community festivals, skating trails and an Ice Way in one river valley park, and meso-scale development of a winter patio permitting process (City of Edmonton, 2018). Edmonton's WinterCity Strategy has not successfully influenced municipal-led projects or industry-led projects to design or plan for winter as a priority. If they had there would be built infrastructure like buildings that are designed for winter solar exposure and micro-climates, parks with outdoor living rooms including built forms with different degrees of shelter and exposure, and seasonal maintenance plans for transportation networks. Edmonton has few public washroom facilities. The ones they have were built in the 1970s, with shallow sewer lines rendering them unusable in winter. Since the 1970s, Alberta still had winter; this shows the planners and policymakers assumed people would not use the parks in the winter or wanted to keep them from using it for an extended period. The Parkland Bylaw 2202 requires that no fire can be left unattended, which is reasonable regarding fire safety. However, it also restricts communal open fire pits because the Parks Division lacks onsite full-time operations staff. This lack of institutional uptake negatively impacts the Winter City 'brand' as the product does not match the marketing. Instead, it reflects internalized social values of individualism, privatization and subsequently, climatic determinism, defined by myths and fear (Shields 1991), and prescribes a predetermined outcome of isolation from socio-ecological systems. Nationally, fewer than six major Canadian municipalities include sidewalks in municipal snow-clearing efforts (Macleans 2011). It thus fails to ingrain the need to institutionally provide the systems planning and tangible infrastructure required to connect people to outdoor environments and form connections in those spaces year-round. This planning structure transfers what ought to be a collective responsibility to individuals, creating alienation in winter city experiences and impeding the pursuit of collective solutions to winter-related challenges. Societally, in Canada, we have either equipped ourselves to conquer winter or choose to ignore it and have failed to understand winter with a sociological frame.

Winter cities have the potential to model climate adaptation and mitigation through infrastructural assets and a foundational cultural theory for socio-ecological connections. We have mastered the technological ability through engineered structures to create habitable space in nearly every environment—even outer space! However, we have largely failed to engender the value of keeping people socially connected and

connected to the natural environment every day and season. These seasonal variations require "significant changes in daily life, foregrounding its socially meaningful and not merely climatically distinctive nature" (Milbrandt, 2022, p.120). Social health objectives are not typically considered in the decision rubric for city builders, especially for infrastructure. With every capital project, neighbourhood renewal, and policy, we degrade people's ability to connect socially and have access to nature as we pursue private and climate-controlled space instead. Canadians codify through policy that public space is not for all people at all times but, instead, is condition-dependent (City of Edmonton, 2021), which remakes the urban fabric in a way that de-democratizes public places. Social isolation is becoming one of the most pervasive public health issues in Canada (Aschaiek, 2022; Chief Medical Officer of Health of Ontario, 2017). Isolation is often a construct of the context. Failing to connect how our "pervasive ideology of individualism"(Milbrandt, 2020, p. 131) has contributed to this public health outcome is a shortcoming in Canadian urban planning that cannot endure.

Here is where Winter Cities could hold the answers, but the operationalization of this theory has missed the mark. Cities designed with Winter City principles use decision rubrics that design for the worst days of the year first with an empathetic acknowledgement of the specific challenges that the climate brings. Based on Schön's (1993) work, this method aligns the intent of the built form to create social infrastructure with equal dedication to meet technical specifications to survive with a sociological intent to connect and thrive. There are ever-increasing reasons to help keep people connected in physical environments to each other, and the greater natural world (Watt-Cloutier, 2015). Public spaces have great potential to act as a medium to facilitate this connection. In environments where a significant challenge for movement and socio-ecological connections is the climate, municipally generated public material culture and policies together are needed.

A notable Canadian example is the Arctic Glacier Winter Park at The Forks in Winnipeg, Manitoba (Figure 1). This public park and redevelopment of warehouses at the junction of two rivers combine a museum, market, and public facilities paired with commercial businesses with a critical mass of offerings to draw diverse people to participate in various outdoor activities—commercial and public. It has seasonal adaptability to create new offerings year-round, for example, skating and warming huts in the winter and boats and docks in the summer on the same river. This development has created a significant impact on the outdoor culture of Winnipeg. People can come to this public space, access amenities, and are encouraged to linger all day. It is a simple system that encourages everyday use. It has even become the place of a new Canadian sport—Crokicurl.

Regarding place branding, critical mass and the creation of a material culture that supports sociological needs in winter, the Arctic Glacier Winter Park has achieved massive success. One aspect of The Forks is the combination of heated indoor public space and outdoor plazas, park spaces and connecting pathways, bicycle paths and seasonal activities on the river. In Figure 1, for example, temporary shelters augment the converted warehouse interiors of the development. As many successful projects experience, The Forks, intended as a public park, is experiencing gentrification and is refocusing on high-end offerings. This change alludes to the pursuit of privatization, which may, in turn, be the downfall of The Forks as a prominent Winter City example of socio-ecological public space.

INTERNATIONAL INTERVENTIONS

The following examples represent the material culture that serves as transformative agents. These international examples of material culture brought into the Canadian context could play a critical role in reducing the grain of large spatialized Canadian cities, creating permeability within the landscape and being catalyst objects to recontextualize public spheres year-round. If situated within a Canadian context, these objects could transition the trend of branding without the material culture to support and instead provide the needed built forms and governance structures to shift a culture from individual to convivial.

Amenities can be added granularly through interventions in key locations to increase street life. These objects are situated to create critical mass, and help attract and keep people in public places. Their size and plasticity give feasibility to test and increase offerings on a small scale. Specifically, kiosks, made popular by the Parisians, are engrained cornerstones of street life in many cities, from New York to Moscow. The once obsolete Lisbon, Portugal kiosks are historical objects previously removed to suppress public gatherings under a dictatorial rule and are now used to reactivate public life (Montagne 2016). These interventions bring people to places for a specific thing and help them linger. In Lisbon, they are prompting a revival of local traditional beverages fair, *capilé*, that "slipped out of people's consciousness as the city's classic drinking and snacking spots – its historic kiosks – closed for business" (De Almeida Brito n.d). The Rocket Kiosk in Tromo, Norway, built in 1911, is within the Arctic Circle. It is Norway's smallest pub and meeting place serving reindeer hotdogs and gluhwein. This Copenhagen, Denmark example (Figure 3) was built for connection. As the first public telephone in the city in 1913, it represents a catalyst for connecting people in historical and contemporary urban life. It currently operates as a coffee shop; like various Scandinavian examples, they operate year-round.The Slovenian-designed experimental architecture modular pods, K67 (Figure 2), made in the 1970s, show how this intervention could be scaled and open-ended. K67's "position between architecture and industrial design, embeddedness in the framework of a modern city and society, the rituals of daily life, and, last but not least, its persistent capacity to reinvent itself" (Huber 2017). Kiosks are a material culture that demonstrates how outdoor public life can continue in a winter climate, be a place for gathering and add granularity in a spatialized urban environment.

FIGURE 1: Arctic Glacier Winter Park at The Forks in Winnipeg, Manitoba. January placemaking on the frozen Assiniboine River looking West. Credit: Red River Mutual Trail_Skating_2521_Credit Travel Manitoba.

FIGURE 2: K67 Kiosk serving fresh Vegetables. Courtesy of Museum of Architecture and Design, Ljubljana, Slovenia.

FIGURE 3: A Kiosk in Copenhagen, Denmark, with people sitting at tables and chairs. Credit:Alexander Farnsworth

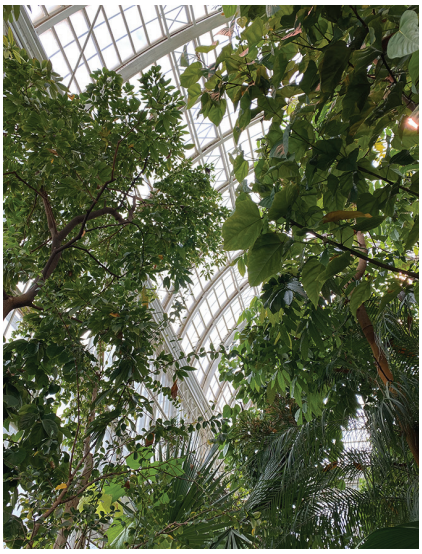

FIGURE 4: The Winter Garden in New Carlsberg Glyptotek. historical museum, Copenhagen, Denmark. Credit: Sofia Andersin.

FIGURE 5: Hauser & Wirth Somerset, UK. Winter, by Jason Ingram. A four-acre contemporary garden designed by Piet Oudolf. Image used with permission.

FIGURE 6: Frost-covered Echinacea seed heads add texture and interest in the winter garden. Credit:nikamata.

Pressman's methods for achieving a sense of climatic place in winter cities are through infrastructure and built forms at various degrees of shelter and exposure. Winter gardens, made increasingly popular after the 1851 World's Fair and public around 1900, are an example of material culture and governance structure that offer a fully sheltered reprieve in an exotic escape. They are environments of dichotomic forces—opening up at the same time and closing in around. The history of winter gardens is colonial as they were forged from industrial capitalism but eventually was developed for the public good. Many Scandinavian and European examples, including the New Carlsberg Glyptotek Historical Museum, Copenhagen, Denmark and the University of Copenhagen Botanical Garden, utilize material permeability in steel and glass structures that offer a sensory environment. The Helsinki, Finland, winter garden was established in 1893 and has been a recreational meeting place for residents for more than a century, as it is free to the public and open year-round. This institutionally generated material culture provides equity through access to the "dream houses of the collective" (Benjamin 1999). Enclosed winter gardens are an escapist third space that provides an encompassing sensory environment—which, as Grabowska (2021) states, cues responses in the body and mind (Figure 4). Sensory data perceived through environments can shape experiences and connect people to places. Through the dichotomy of situated experiences, we recontextualize or can create temporary but all-encompassing escapism.

Outdoor winter gardens create activation throughout the year and entice people to come to take space in all seasons. Winter garden designs emulate the cyclical nature of life through the tangible landscape, inviting a connection to the environment year-round. Elements of these gardens include variations in horticulture that layer the landscape to define paths and draw the user through place using visual interest, texture and structure (Figure 5). They use frost and snow as additive elements to design with, not against (Figure 6). As "steps awaken a surprising resonance," the crunch of boots on the snow becomes a defining sound in the hushed landscape. "The garden in winter is an emotional experience. You think in terms of decay and disappearing and coming back. You feel the life cycle of nature" (Barrett, 2011).

Cold temperatures can hinder prolonged winter activity even for the most avid user. Smaller interventions sprinkled throughout the built environment create pause and respite either in an everyday travel journey or during leisure. A smaller-scale material culture, such as warming huts, can achieve this. Warming huts have gained interest in Canada in the last decade and have demonstrated varying degrees of art and architecture through aesthetics and functionality. Like the K67 pods, warming huts sit at an intersection, providing human-scale functionality in a greater urban environment. They speak to an empathetic response to the climate conditions and provide a resolution between the technical specification of wind blocking and receiving solar gain through an aesthetic vernacular of ingrained warmth (Figures 7 and 8).

GOVERNANCE AND POLICY

Mobility networks link to and within living spheres. They are a significant factor in how, and if, people can participate in various aspects of society. How we move in cities has often been a contentious aspect of collective organization as it has the power to define, profile, segregate, and classify (Barajas 2021). Transportation networks take up vast space and resources. The way governments structure this crucial infrastructure communicates priorities of who and when people have access. A contemporary Winter City researcher, Chapman (2017), states that the prominent users of soft mobility networks are women; therefore, how we provide and maintain transportation routes highlights social equity issues. For example, Swedish cities have adjusted snow ploughing policies for mobility infrastructure after a study identified that the primary networks used by men and women were different (Bloomberg 2013). Chapman's research at Luleå University examines how Umea, Sweden, operationalized adaptable transportation networks with Blue, Green, and White plans that respond to opportunities and operational challenges per season. The White plan utilizes the seasonal freezing of Luleå's harbour to provide a shortened commute from the suburbs to downtown with an ice road for soft mobility users. Oulu, Finland, acknowledges the seasonal effect on signage in mobility networks with a projector system including a unique lens that projects the mobility lanes designation (bicycle or pedestrian) to delineate path separation. This material culture speaks to prioritization in design and governance for seasonal variation as the projector works no matter the path substrate, concrete, leaves, or snow. Cycling infrastructure extending beyond leisure use is only about a decade old in Canada and has yet to demonstrate this type of adaptive governance. Seasonal adaptive planning provides better access to year-round and multi-modal infrastructure, with policies prioritizing it builds more equity in the public realm.

FIGURE 7: A person looking out the window of a warming hut in Edmonton, Alberta. Photo: Danielle Soneff. Photo provided by Danielle Soneff.

FIGURE 8: Interior of a warming hut made of charred pine and orange-painted plywood to reference a burning ember. Photo: Danielle Soneff. Photo provided by Danielle Soneff.

FIGURE 9: A projected light illuminates traffic signs on a snowy surface of a cycling path in Oulu, Finland. Image credit Pekka Tahkola. Image used with permission by Pekka Tahkola.

CONCLUSION

Winter is experienced collectively and demands a response from everyone, even by those avoiding it. The prevailing Canadian planning and governance structures of conquer or ignore persuades behaviour to turn inward to climate-controlled environments. We need to place winter use at the top of the decision-making process instead of defining it as the "kiss of death" (Trevor Boddy, 2017, p. 18). The method to achieve this is through the creation of infrastructure and policies with an equal dedication to meet the technical specifications necessary to survive and guided by the sociological intent to connect and thrive. The outcome of this can reshape'winter' from a climatic phenomenon into a social construct.

The way to support the branded Winter City initiatives is to foreground winter climate with a material culture that empathizes with the harsh realities of climate and that functions beyond basic requirements and becomes a tool to helping us thrive. Material culture is the objects and built forms surrounding people, going beyond individual purposes and formed by social reciprocity. Democratizing space means codifying it for all people in all seasons and creating the means to do so with tangible material culture. Especially in Canada, taking space in public environments is revolutionary as it actively opposes the institutional structures to keep people out of it. Kiosks become rebellious interventions as they become cornerstones for public gatherings and conversation. Active mobility infrastructure returns agency to the user as they stitch and weave paths, and their streaks permeate the routes once only permitted to a few. The crunching of boots on a snowy path creates resonances in the chilled air while exploring the frost strokes painted on a winter garden. When our built environments passively adapt, it helps our mindset seamlessly transition, which builds resilience by embracing change.

A material culture focused on creating equity, critical mass and permeability to public spaces has the potential to reduce the physical, mental and emotional spatialization the Canadian planning structures have formed. The city-scale or institutional material culture emulates a top-down method to address societal issues caused by harsh weather, privatization, and isolation and must be addressed by governance. If people are going to tackle systemic problems like climate change and equity, we need to recreate social environments where diverse people come together, form alliances and take space. The importance of these concepts is only increasing with climate change. ■

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COVER IMAGE

digital_dirt is a single-person art collective living on the banks of the North Saskatchewan River, Canada. The collective enjoys experimenting with printmaking, doodling and admiring nature- especially the non-virtual kind.

Title: *ctrl_v_3*
Medium: linocut
Year: 2022
Artist: digital___dirt
Website: www.digitaldirt.ca

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