

Literature in a “Digital Ecology”: Interdisciplinary Digital Collaboration in Contemporary
English Canadian Literature

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Abstract

This project delineates an emerging genre of cross-disciplinary, geographically located, collaboratively produced Canadian digital literature in English. Drawing on thinking from the fields of new materialism, the digital humanities, architectural theory, cultural geography, and ecology, this dissertation applies a whole systems approach to four recent works in order to highlight a generic impulse toward the emergent, the indeterminate, and the provisional—what Doreen Massey calls “[l]oose ends and ongoing stories.” By mapping this impulse across these projects, this dissertation examines the spatial, structural, and infrastructural ecologies they embody, tracing their emergent patterns and reading in them a broader generic concern with social, economic, and environmental inequities. The works this project studies are Canadian, but their interactive digital form extends their relevance and potential impact beyond national borders. Throughout this project, I argue that these works engage audiences in multi-sensory, interactive reading environments, producing localized, participatory readers more attuned to the ecological, economic, industrial, and cultural complexities of the real places they examine and to the creative navigation of the challenges marking our current geological era.

This dissertation is divided into four chapters, each of which examines a recent spatial, structural, and infrastructural ecology attending to the material and the ephemeral. The first chapter posits that, by way of its interactive multimodality, Sachiko Murakami’s *Project Rebuild* leads readers into a generative contingency, privileging not established patterns or fixed structures but instead a generous fluidity that makes space for more equitable social, material, and economic relations in urban Canada. The second chapter examines Aaron Tucker et al.’s *Loss Sets*, which, I argue, generates a productive textual lacuna that forces audiences to read the gaps and omissions forming the compositional substance of the project. The third chapter turns to Madeleine Thien’s *Vancouver of the Mind*, which, I suggest, approaches Vancouver’s historic and ongoing displacements and disposessions by formal and structural means, applying the logic of digital multidisciplinary and invited collaboration to its examination of the gaps, absences, and injustices occurring in and emerging from its spatial referent. The final chapter argues that in Fred Wah and the High Muck a Muck Collective’s *High Muck a Muck: Playing Chinese: An Interactive Poem*, rivers, migratory routes, mountain ranges, and other arterial forms work in conjunction with the project’s multimodality to materialize relational structures and cultivate in audiences a proprioceptive approach to the reading process, strengthening their sense of the connective tissue which binds them to the places, spaces, and structures of the world.

In applying a macroecological lens to this emerging genre, and acknowledging the broad readership such digital works invite, this project aims to build a set of observational tools and to cultivate a responsive relationality with the systems and patterns running through the works I study and the places and structures they represent.

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Introduction

“The latent commons”: A Mapping Project for the Anthropocene

saltiness grows over eons plankton provide half our oxygen
 what we cannot see matters as kin
 – Rita Wong, *Undercurrent*

It’s not easy to know how to make a life, much less avert planetary destruction. Luckily there is still company, human and non-human. ... We can still catch the scent of the latent commons.

– Anna Lowenhaupt Tsing, *The Mushroom at the End of the World*

In 2014, during her tenure as Writer in Residence at Simon Fraser University, Madeleine Thien constructed a book out of varied ephemera—postcards, photocopied photographs, typewritten pages, patterned origami paper—which she collaged onto cardstock and bound, accordion-style. Thien described this book, titled *LETTERING* (see Fig. 1), as a “letter to her deceased mother” (“Madeleine’s Letter/Our Responses” n.p.). The book has a short textual complement, titled “A Room at the Turn of the Corner,” in which Thien describes a visit with her mother long after her mother’s death: “Many years after my mother died,” Thien writes, “I went to visit her in the house where I had grown up. We sat on the edge of her bed... She was wearing a mauve dress that fell to her knees in narrow pleats, her hair was curled, and when she smiled, she looked intense and beautiful. She looked younger than the last time I had seen her” (“Madeleine’s Letter/Our Responses”). The materiality represented in these paired works operates in tandem with their striking treatment of temporality. In Thien’s account of the visit itself, time moves both steadily and not at all, and the narration shifts between anachronous time frames while also seeming to hold time still. Thien writes,

Everything in my mother’s bedroom—a room that no longer exists (when she died, all the furniture was given away. I had taken her files and papers to the recycling depot in

Vancouver, where a worker had instructed me to upend them into a machine that crushed and shredded them, [so that] even her handwriting had disappeared. The house was sold)—was achingly familiar. (“Madeleine’s Letter/Our Responses”)

This is a *thorough* purging of the material remnants of her mother’s life, a liquidation which dematerializes “all” her mother’s furniture and which “crushe[s]” and “shred[s]” her handwritten remainder. The *matter* of Thien’s mother’s life, once so thoroughly disposed of, is here re-called and put to work in service of a different project at a different moment in time: a long-desired but impossible visit, which, if not tethered to something concrete, if not weighted down, is sure to evade Thien’s grasp. The furniture, the files, the handwriting, the house: these things are enumerated as if to insist on their having once existed, as if to secure them in place. But, while these things are weighty and numerous, they are also carved off from the body of the text, both placed in parentheses *and* sectioned off by em dashes. The double removal this punctuation effects echoes the thoroughness with which the mother’s things were disposed of after her death. By rendering these items both weighty *and* parenthetical, Thien emphasizes, on the one hand, their devastating absence and, on the other, their asphyxiating ineluctability.



Fig. 1. Screenshot of Madeleine Thien’s *LETTERING*, pictured in “Madeleine’s Letter/Our Responses.” Image credit: Tom Quirk.

In these two works, Thien pairs descriptions of the material—the long-discarded objects that furnished her mother’s life—with *actual* material: collected fragments affixed with glue in the form of a physical book. These paired works also, however, undermine the weight of physicality with a sense of the unsustainability of the material. The glue and paper of which *LETTERING* is composed will undoubtedly degrade over time, and, in “A Room,” bodily needs are paired with the impossibility of those needs being met: “I was hungry,” Thien writes, “but [there was] no food,” and the mother’s comment that Thien’s “sister went to buy coffee [and] should be back any minute” never results in actual sustenance, even though Thien and her mother sit together “all day” (“A Room”). Elsewhere in “A Room at the Turn of the Corner,” physicality is undermined by a sense of transience and unpredictability: Thien writes, “I understood that if I went outside the bedroom, if I tried to find the kitchen, I might be disappointed. ... I did not know how this room attached to all the others through which I had passed, all my life, whether they were joined ... or whether they floated in space” (“A Room”). These lines emphasize the changeability of the material, its continual flux, but the conditional form Thien uses here pushes this changeability further, precluding certainty even of change itself. Thien reconvenes the material objects and spaces associated with her mother while also emphasizing their ephemerality and their ultimate inability to adhere in the present. She further undermines the solidity of the material by offering these works as a medium for collaboration, presenting them as a “seed text” to the Thursdays Writing Collective, a long-running but now-defunct creative writing workshop in Vancouver’s Downtown Eastside, and inviting participants to “help her fill” the physical book and to “respond to” its accompanying text in their own words.¹ In *LETTERING* and “A Room at the Turn of the Corner,” Thien presents materiality as

¹ *LETTERING*, “Madeleine’s Letter/Our Responses.”

enduring, even transcendent, but she also depicts it as fleeting and finite, circumscribed by an impassable void. In these ways, she calls our attention to the conflicted nature of the material, and to our complicated—and unsustainable—notions of its ability both to persist and to erode.

While Thien's engagement with the material in these works does not constitute an overt commentary on matters related to ecology or the conditions of our Anthropocenic era, her treatment of materiality nonetheless raises compelling questions about the ecological, social, and spatial implications of our current relation to and conceptions of the material. The indeterminacy pictured and enacted in Thien's works described above is a fundamental element of their composition and gestures toward a broader social and environmental sensitivity. This sensitivity is one about which Anna Lowenhaupt Tsing asks, "What if our time is right for sensing precarity? What if precarity, indeterminacy, and what we imagine as trivial are at the center of the systematicity we seek?" (*Mushroom* 20). In other words, and applied to the present discussion, what if the material instability and contingency pictured and enacted in the emerging genre this dissertation studies are the very things to which we must attend, both in terms of the present project of literary analysis *and* in terms of the conceptual framework that has informed and produced the conditions of our current geologic era? What if the emergent order² I aim to decode in this project, the material and conceptual reconfigurations continually emerging from the shifting network in which they participate, is most palpable and urgent in the forms of degradation and indeterminacy enacted and envisioned by the works this project studies? Such questions are what animate my project here. In this dissertation, I examine the ways these concerns circulate in a suite of recent, collaboratively produced, interdisciplinary works of digital Canadian literature in English. Specifically, my project takes up four works: Sachiko

² By this term I want to emphasize the patterns continually emerging from the works I study here, and to attend to the multidimensionality of both the patterns themselves and the movement of their continual emergence.

Murakami's ongoing "experiment in collaboration," *Project Rebuild*; Aaron Tucker and Jordan Scott's "translated" 3D poems, *Loss Sets* (2016); Madeleine Thien's "multimedia storytelling project," *Vancouver of the Mind: On Hastings Street* (2014); and Fred Wah and the High Muck a Muck Collective's "interactive poem," *High Muck a Muck: Playing Chinese* (2014). Like Thien's *LETTERING* and "A Room at the Turn of the Corner," each of these four digital projects occupies the space between the concrete and the ephemeral. Each is concerned with its own materiality and experimental formation, and each is driven to interrupt a habitual, passive engagement with the digital and insist upon audiences' embodied and invested interaction with the forms, objects, spaces, and subjects it represents. Each of these works is "Canadian," but their interactive digital form necessarily invites the participation of a broader readership. Each of these four works also materializes concern with processes of decay or decline into obsolescence, including its own, and with forms of transience more broadly—the types of passage resulting from dispossession, disposal, dislocation, and dispersal. This dissertation reads these interdisciplinary works as ecologies of human and nonhuman elements that co-operate, certainly, in the continued unfolding of the projects themselves, but that co-operate also in fostering in readers a collaborative ethos that crosses ontological lines, and cultivates a more nuanced, located, and invested engagement with materiality. While my project does, in certain chapters, address ideas related to natural ecosystems and their preservation or loss, my use of the term "ecology" in this project refers not only to those most familiar associations, but also, and more frequently, to its sociological meanings, which point to the "system of relationships" between humans, social groups, and their environments (*OED* 1b). Beyond an assessment of relations between humans and environment, however, my use of the term "ecology" in this project apprehends the action and intentionality in "environment," in order to understand it not as a bit

part that fleshes out a principally human drama, but as itself a busy, purposeful system whose concerns circulate in the larger system it shares with the concerns of humans.

By examining these four projects as a coherent body of work driven by a common impulse, in this dissertation I apply a whole systems³ approach to the spatial, structural, and infrastructural ecologies these works embody, tracing their emergent patterns and dynamics, and reading in them a broader generic concern with forms of social, economic, and environmental inequity. I argue that these four projects form part of an emerging genre of cross-disciplinary, geographically located, collaboratively produced Canadian digital literature that engages audiences in multi-sensory, interactive reading environments and produces a localized, participatory⁴ readership more attuned to the ecological, economic, industrial, and cultural complexities of the real places these works examine. Further, I argue that this genre emerges at a time when attention to indeterminacy and transience seems particularly adapted both to critical cultural analysis and to the creative navigation of the challenges marking our current geological era. I suggest that it is perhaps, now, more productive to attend to the patterns emerging from the complex fragmentation and discordance of our geological context, rather than to attempt to force

³ I borrow this term from biology, where it describes an approach to the patterns of interconnections that exist in biological systems and an attention to the broader system in which any one organism operates: the network of molecular, genetic, environmental, and other elements with which the organism interacts (see, for instance, Anthony Trewavas). Rather than seeing each element as a discrete and bounded body, a whole systems approach sees the “system of systems” (Francois Jacob).

⁴ Readers will notice that the chapters of this dissertation are weighted toward the western-most provinces of the country (in particular, British Columbia and Alberta). Future iterations of this project will need to account for this weighting, or perhaps build it into its argument. Currently, however, I am most interested in addressing the geographic representation in this project by broadening my case for the “generic impulse” outlined here; specifically, I am excited to build in consideration of works of digital literature in Canada that have emerged more recently than those discussed in the project’s present iteration. Works I am particularly excited to explore, and which I discovered only in the later stages of the writing process (and which are therefore not represented here), include works by Nova Scotia-born multimedia artist and writer J.R. Carpenter, whose multimedia digital-literary projects *An Island of Sound* (2022), *The Pleasure of the Coast: A Hydro-graphic Novel* (2019), and *This is a Picture of Wind* (2018) have a great deal to contribute to the present discussion. As a more immediate (though not wholly satisfying) solution to the matter of geographic weighting in this thesis, however, I have aimed to bring a diversity of geographic perspectives to bear on these predominantly western-Canadian primary texts by way of my critical sources.

upon that context a coherent, synthesized narrative that may turn out, after all, to be only partial.⁵ In applying a whole systems—or, macroecological⁶—lens to my analysis of these digital projects, I call particular attention to the material, geographic, and spatial concerns running through them, and the forms of decline or obsolescence to which they refer. In undertaking what I have come to think of as a kind of “mapping” project, my analysis here draws on disparate fields that intersect at compelling and salient junctures. The relations and intersections among these fields, mapped across the works this project studies, lend me the macroscopic lens necessary to approach this emerging genre, and its spaces, structures, and sympathies. My discussion here draws, in particular, on thinking from the fields of new materialism, the digital humanities, architectural theory, cultural geography, biogeography, and ecology, all of which, both collectively and individually, sketch relations among what Tsing calls the “*company*, human and nonhuman” (282, emphasis added). In her discussion of this assembly, Tsing troubles the word “Anthropocene,” whose prefix, she suggests, “blocks attention to patchy landscapes, multiple temporalities, and shifting assemblages of humans and nonhumans: the very stuff of collaborative survival” (18).

The macroecological lens through which I approach this genre and its concerns with cross-disciplinarity, spatiality, and collaborative production necessarily takes up the language of ontology and material agency, which, in recent decades, new materialists such as Caroline

⁵ Tsing notes the life-affirming essence of precarity: she writes that “unpredictable encounters transform us” and that indeterminacy “makes life possible” (20). Though such a reading is unlikely to convince anyone that one’s job loss is for the greater good, such a re-framing does, with a contextualizing effect, place on a longer timeline the extinctions and losses typically associated with precarity.

⁶ I use these two terms interchangeably. While there has typically been a difference in emphasis between the two terms—“macroecology” as reliant on statistics and broad datasets to study patterns and the processes and mechanisms underlying them, and “whole systems” as attentive to all parts of the system, even the smallest (i.e., the microbial)—increasingly, scientists are moving towards an integrated conception of these terms (see, for instance, Ashley Shade et al., Nico Eisenhauer et al., and Hannah White et al.). Shade et al. argue for a synthesis of the two lenses because they “share a common currency of species and individuals, and a common goal of understanding the causes and consequences” of the processes they study (731).

Levine, Karen Barad, and Jane Bennett have brought to the fore of cultural and academic discourse. Despite its recent prominence, however, new materialism is neither new⁷ nor uncontested, and its application to my analysis here needs to be nuanced by a discussion of its genealogies and parallels. In this dissertation I aim to synthesize recent critiques of new materialism into my application of that lens, and, moreover, to reflect on the implications of applying this particular analytical lens to the kinds of contexts treated in the works I study here, particularly those related to current and historical dispossession and displacement in Canada. In her critique of new materialism, Kyla Wazana Tompkins argues that we must be suspicious of new materialism's "putative newness": she continues,

A non-human centered ontology and ethics; a sense of the biological and non-biological world as vital and alive; the idea of the body as having a life and conversation of its own, with itself; and, most centrally and crucially, the idea that planetary life should [be], must be, and will be at the determinative centre of political worldmaking: these are epistemologies and ontologies [attributable to] First Nations and Indigenous peoples.

("On the Limits and Promise of New Materialist Philosophy" n.p.)

To engage with new materialism's genealogies of Indigenous bodies of knowledge, one must consider, for example, the Ojibwe Anishnaabe more-than-human ontologies *mnidoo*, which Dolleen Tisawii'ashii Manning describes as a form of trans-ontological "fluctuating co-responsiveness" (196); the Inuit concept of *Sila*, which, as Zoe Todd explains, links environment

⁷ Indeed, Jerry Lee Rosiek and Jimmy Snyder write that "the idea of other-than-human agency has received sustained development and application in Indigenous studies' literature and in Indigenous traditions of thought and practice long before that" ("Narrative" 1152). Zoe Todd, too, among others (see, for example, the work of Sarah Hunt), has pointed to the "colonial violence" that results when non-Indigenous thinkers "discuss the more-than-human but do not discuss their Indigenous contemporaries who are writing on the exact same topics" ("An Indigenous Feminist's Take" 18). In her critique of new materialism, Todd references specifically Bruno Latour's failure to engage with the Indigenous lineages of a non-human-centred ontology ("An Indigenous Feminist's Take" 5).

and knowledge;⁸ or the term “place-thought,” which Vanessa Watts uses to describe the relationality between and among humans and non-humans (“Indigenous Place-Thought” 21). Engagement with these bodies of knowledge must constitute more than what Jerry Lee Rosiek et al. call “performative reciprocity”; indeed, Rosiek and co-authors argue that a cursory nod to such genealogies and parallels “could, by failing to acknowledge and seriously engage the Indigenous scholars already working with parallel concepts, end up reinforcing ongoing practices of erasure of Indigenous cultures and thought” and, by extension, “inhibit the ameliorative work [new materialist] theories might help us collectively undertake” (333-4). This potential “ameliorative work” is consequential: Manning writes that “new materialists take up the affective potency of material existence inherent to Indigenous concepts such as *mnidoo*, as rich resources for innumerable eco and social justice applications” (18). Jacquelyne Kibler, too, notes that “notions of interdependence, co-creation, and environmental agency have powerful implications for conversations around social justice, environmental sustainability, and decolonization”; however, the potential of these ideas is undermined when their roots in Indigenous knowledges is obfuscated or when, in Kibler’s words, “the citing behaviours of many new materialism scholars privilege Euro-Western lines of thinking while ignoring Indigenous scholars, theory, and ways of knowing” (*Indigenous* 11). A fulsome engagement with Indigenous knowledges is therefore essential to the successful—and not merely performative—application of new materialism to a reading of the spaces and structures operating in the works my project examines. Such an engagement is particularly important here, given this genre’s treatment of current and historical dispossession and displacement in Canada and its tendency toward spatial

⁸ “Sila,” Todd writes, is a term that binds life, climate, knowing, and existence; that links environment and knowledge; and that refers to the circulation of breath between and among all living things (“An Indigenous Feminist’s Take” 5-6).

and geographic locatedness and specificity. I hope that, by foregrounding critiques of new materialism in my application of the lens, and by citing and discussing the work of Indigenous scholars and writers in my application of its terminology, I can contribute to the larger effort to synthesize new materialism and its genealogies in and parallels with Indigenous thought. I hope, in other words, to contribute to a more nuanced engagement with the language of ontologies and material agencies, and, ultimately, to avoid inhibiting the weighty ameliorative potential those terms and concepts carry.

By sketching relations among the varied forms of “company” (Tsing 282) kept in the works at hand, and by examining how materiality is inflected by forms of injustice, I aim, in the words of Diana Coole and Samantha Frost, to “link ontological ... questions with their ethical and political correlates and implications” (37) and to do so, furthermore, in a way that is firmly grounded in the spatial specificity of the literary projects I study here. Rather than conduct a “pure” new materialist reading of the literary genre my project delineates, I want to adapt the concerns of new materialism to mapping the spaces and structures by which the works I study here are occupied and preoccupied. Like in Thien’s *LETTERING* and “A Room at the Turn of the Corner,” these literary works encompass indeterminacies, spatial and temporal fluidities, cross-disciplinary transits, and forms of collaboration that undermine the “fantasies of... imperviousness” that have produced the Anthropocenic conditions under which we live, our unsustainable relations with the material, and the forms of dispossession and dislocation this literary genre narrates. A “pure” new materialist reading would “insist... on [humans’] immersion within worldly material agencies” and the “interconnections, interchanges, and transits between human bodies and nonhuman natures” (Alaimo 158; 2). It would foreground “the agency of assemblages” and “the efficacy of objects in excess of the human meanings,

designs, or purposes they express or serve” (Bennett 20). It would recategorize ontological units not as “things but [as] phenomena⁹—dynamic topological reconfigurings/relationalities/(re)articulations of the world” and would point to the posthumanism at which we must arrive when the concept of “ontology” is thus reconfigured (Barad 141). These approaches to materiality are compelling and essential. They are the epistemological descendants and non-Indigenous corollaries of the *mnidoo* and other forms of Indigenous knowledge related to ontology and material agency. They are the theories and reformulations that have captured my imagination since I began my doctoral work, and they are the roots of this project. However, over the years, my curiosity about the material has come to concentrate on its intersections with spatial and ecological relations and how they speak to matters of justice and access to, for instance, resources or space. I am curious about what happens to new materialism when we read the material precarity and unsustainability running through the genre my project delineates, and how the conflictedness of the material—its unpredictability and tendency in these works to both persist and erode—nuances a “pure” new materialism. But I am also curious about how this genre points to cultural and ideological shifts related to humans’ position in and interactions with *the material world*—and all the ecologies, species, networks, and structures that term encompasses. I am interested in observing the whole system.

Following recent thinking in the fields of ecology and biogeography (see, for instance, Nico Eisenhauer et al. and T.W. Crowther et al.), I want to push past a two-dimensional analysis of the genre my project studies and apply to its works a multi-dimensional lens that considers the ways the parts of these works bleed across ontological lines and into adjacent “communities.”

⁹ Latour describes this idea differently: in his view, a *thing* is a gathering or assembly; it is a site characterized by variation and difference and not by singularity or uniformity (“From Realpolitik” 12-13).

Adopting language and ways of thinking from the fields of ecology and biogeography allows me to emphasize the ecosystemic processes, functions, and reciprocities that occur in, between, and among the interontological “communities” at work in this emerging genre. This framework enables me to shift the focus from a simpler task of “pattern description [to a more complex] mechanistic understanding” of the works, and to attend to the “biological, physical, and societal dimensions” that inform, and are informed by, the patterns and processes at work in the projects themselves (Eisenhauer et al. 8). In applying a macroecological lens to the suite of projects my dissertation examines, I attend to their heterogeneous composition while also asking how we can read a kind of emergent order in and across the projects comprising this body of collaborative, interdisciplinary work.

To apply this macroecological lens is to acknowledge the *drivers*¹⁰ behind pattern distribution and pattern activity—the forms of change, loss, and interaction that inform (and are informed by) the contextual environment¹¹—and to trace the trajectories and outcomes of the resulting forms and impulses. In the context of the works this project studies, prominent among the drivers of pattern activity and pattern distribution are social and economic inequities that contribute to dispossession and dislocation, and this project traces the resultant spatial, material, and other implications of these shifts and vacancies. A mechanistic-systemic analysis of these works and the genre to which they belong aligns with the priorities of conservation science,

¹⁰ See Eisenhauer et al. 5.

¹¹ Biologist Anna-Liisa Laine writes that these drivers “increase spatio-temporal heterogeneity,” but, implicitly, her argument also suggests that such processes can increase material and experiential heterogeneity, too. Laine writes that “pathogens colonizing new populations will frequently be maladapted to the conditions in the new habitat patch, with major consequences for the settlement probability and ensuing local demography. [Therefore, ecological and adaptive dynamics] may commonly influence each other, thereby leading to a coupling of ecological and evolutionary dynamics [in interactions between drivers and contexts]” (R579). In the context of the present project, Laine’s work to trace the spatial, temporal, material, and experiential heterogeneity bred by change drivers helps illuminate the parallel processes at work in the literary genre delineated here, and to demonstrate the complexity of the human-nonhuman interactions playing out in the networks comprising this genre.

which, like my project, draws a connecting line between “macroecological patterns [and the] context-dependent effects of ... change drivers” (Eisenhauer et al. 8). Biologist Christian Rutz and his co-authors write that a whole-systems approach to ecology has the potential to “challenge humanity to reconsider our future on earth, ... to forge a mutually beneficial coexistence with other species, ... and to replace a sense of owning with a sense of belonging” (1158). Eisenhauer et al. attach a similar set of affordances to a macroecological approach and note its potential to contribute to more informed decision- and policy-making (8). A macroecological approach acknowledges and appreciates the sensorial richness and complexity instantiated by the digital projects I study here, it identifies and traces the relational structures the works enact, and it contributes to the assembly of an archive of the in between and the simultaneous in Canadian literary production. It also lends itself to a reading of these interdisciplinary projects that is sensitive to the material and human implications of the forms of decline and obsolescence pictured in and enacted by the projects at hand. It enables, in other words, a reading driven by a broad “environmentalism”: one that is, on the one hand, rooted in concern for the depletion of natural resources and global ecologies and critical of a proprietorial stance vis-à-vis the natural and material world, but one also, on the other hand, rooted in a keen sense of humanity’s position as just one part of a larger ecosystem of human and non-human relations and of the myriad forms of decline and obsolescence striating¹² that ecosystem. In applying a whole-systems approach, I

¹² The word “striation” carries connotations related to the fixity and durability of rock formations, but definitions tend to belie those associations: striations, says the *OED*, are furrowings, rapid muscle contractions, or the movements of glacier ice. They are the result and evidence of intense pressure and movement over time: *not* all fixed structures and surfaces, not the immutability commonly associated with rock, but rather persistent change, slow and forceful, over time. Like in Wah’s contributed “renovation” in *Project Rebuild*, discussed in chapter 4 of this project, the structural and aesthetic remainder—the *striations*—of decline and obsolescence in Canadian literature, and particularly in the works this project studies, represent a shifting, changing structure of elements, histories, and contexts, often the result of intense pressures exerted over time.

am tapping into the insights and sensitivities of conservation science, while also pointing to parallel concerns running through new materialism and literary studies more broadly.

In the context of Canadian literature and literary studies in Canada, such concerns surface in works attending to intersections between and among the spatial, the material, and the social.¹³ Joanne Leow, for instance, uses the term “counter-cartography” to highlight a literary impulse to “restore the sociality of space” and insist on “the contradictions inherent in [its] would-be homogeneity” (*Counter-Cartographies* 12). Like my own approach to social-spatial-material relations, Leow’s zooms out, not in pursuit of panopticism or spatial fixity, but rather to apprehend details and their trajectories. For Leow, “creativity, unpredictability, and difference ... produce a differential space”—one resistant to the forces of “capital investment, abstraction and overdevelopment” (12, 15-16). Leow’s focus refers to genealogies such as Deleuze and Guattari’s rhizomatic thinking by perceiving the map as a thing in opposition to “ideas of fixity and centralized power by virtue of its being multiple, processual, ongoing, and open-ended” (*Counter-Cartographies* 179).¹⁴ Leow’s application of cartography undermines the perceived fixity of human and nonhuman relations, thereby opening the reading of spatial representations in literature as a “counter-cartography”: a kind of wayfinding that recognizes the flux of spaces and cities, their “complex, contemporary iterations” (*Counter-Cartographies* 257).¹⁵ Applied to the projects I study here, this approach works to focalize the shifts and flux this emerging genre

¹³ These considerations are evident in works by Canadian authors concerned with place, identity, and forms of marginalization, too numerous to name here.

¹⁴ Antecedents of this idea lie in Deleuze and Guattari’s rhizomatic thinking, something that “must be produced, constructed, a map that is always detachable, reversible, modifiable, and has multiple entryways and exits and its own lines of flight” (*A Thousand Plateaus* 21).

¹⁵ Leow is speaking here specifically of the commemorative plaques and interactive online maps of “literary landmarks” that are projects often undertaken by public libraries and publishers and intended to promote tourism, the publishing industry, and the profile of local writers by “recogniz[ing] physical locations with connections to the city’s authors and books” (*Counter-Cartographies* 247).

uses to undermine the forces, economic and otherwise, that seem to concretize extant social-spatial-material relations.¹⁶

A macroecological approach to these works necessarily positions readers within the ecology of relations they disclose and compels them to see themselves embedded in the systems and structures mapped out therein. In “Untapping Watershed Mind,” Rita Wong applies this kind of macro lens to her treatment of water and waterways in and around Vancouver. Locating herself within the field of relations she studies, Wong writes that rather than speaking *for* water, she endeavours to speak *nearby* water:

[t]he distinction between inside and outside, me and the surrounding watershed, becomes phased and rhythmic if we track the subtle dance of water molecules, floating through lively green wetlands and dark linear pipes on their way from you to me. ... Speaking *nearby* still involves positioning oneself, being attentive to building relations with others, human and nonhuman.¹⁷ (249, emphasis added)

There are resonances here between the “watery lens” Wong suggests “may reorganize our structuring self-identity” (249), and the broader relational view that architectural theorist Rachel Armstrong suggests may afford a “different agenda for the way we live” (*Safe* 60). The key, in both cases, is attention.¹⁸ Wong’s vision of the located, relational self *attends to* the systems and

¹⁶ In the series of poems titled “How it is,” Mercedes Eng traces the shifts over time along the Hastings Street corridor between Cambie and Main, undermining the perceived fixity spatial representations such as maps tend to reinforce, while also emphasizing a very specific kind of erosion: one by which subsidized housing, social service providers, longstanding small businesses, and empty urban spaces are replaced gradually by “fancy furniture store[s],” art galleries, university campuses, and prominent development application signs (*Mercenary English* 105). This series of poems documents the erosion of a community, but it is not only a comment on the appropriation of urban space by a more affluent set of society. It is also a series of “accurate maps” (78) that document change itself, setting out to render visible the shifts and flux in urban space, to highlight them against the perceived fixity of brick facades, stonework, and wood framing.

¹⁷ Wong here adopts language Trinh T. Minh-ha uses in the context of her 1982 film *Reassemblage*, set in rural Senegal: “I do not intend to speak about / Just speak near by” (*Framer Framed* 96).

¹⁸ In the introduction to *Current, Climate*, Nicholas Bradley writes that “*if we listen*,” we may learn “to live more generously with land and water, with each other and ourselves” (xxii, emphasis added). In “Dirty Ideas,” Brandon Labelle writes that to listen is “to appreciate the movements of sound as a type of possibility, for participation, for

patterns of which that self is part, an attention which runs also through her poetry. In *Current, Climate*, for instance, Wong writes,

our blood
 plasma sings the composition of
 seawater...
 we are liquid matrix,
 streaming & recombining ...
 ... we are animals
 moving extracted & excreted
 minerals. (35)

Like Thien's representation of materiality as both enduring and finite, Wong's attention in these lines to the flux and flows of the self speaks to both the indeterminacy and transience of the material *and* its endurance, even as it changes forms and crosses bodies.

Larissa Lai, too, takes up concerns emanating from such human-nonhuman intersections when she considers "the self and its accountabilities" (262) and argues for "a radical humility" ("Saturate" 259) that does not prioritize the concerns and endeavours of humans over those of nonhumans. Of the self she envisions, Lai writes,

[t]his is a complex self—70 percent water, part of the hydrological system, embedded in cities and thus in urban water systems.... It is a thinking self, but also an animal self. It is

collectivity, ...for multiplicity and imagination. ... [L]istening is fundamentally a position of *not knowing*; to listen is to stand *in wait*.... Listening [is] a space of encounter, ... a gesture that invests in the making of a future relation" (4-5, emphasis original). To attend, to give one's attention, then, is to position oneself *in relation to* the other, to assume a stance vis-à-vis the other that invites, recognizes, and nourishes the continuance of their common location within a larger space, system, or structure.

a raced and cultured self, a subject of history, and also one embedded in contemporary systems of governance and contemporary economic flows. (“Saturate” 262)

For Lai, recognition of this complex/self is the first step toward accountability, toward the necessary relational thinking afforded by a macroecological approach to social, material, and economic systems and structures. This radical humility steps back from accustomed forms of subjectivity to apprehend patterns of “relation to and continuity with” nonhuman ecosystemic elements (“Saturate” 265). It is to welcome both coalition with and the sovereignty of those elements, to welcome the knowledge that, in the words of Lee Maracle, “they own themselves” (“Water” 37).

In the age of the Anthropocene, the implications of this generic impulse are far-reaching. While the works my project examines are digital in nature, they convey none of the ephemerality or disembodiment so commonly associated with the digital sphere. Instead, they convey a clear sense of being rooted in real places with specific and defining stories emanating from them. These qualities work to remind audiences of our own location within and inextricability from our greater context and the global conditions we have created. Read this way, the works comprising this emerging genre are part of a growing resistance to the kind of humanistic bias which licenses the continuation of Anthropocenic conditions. Rather than being understood as singular (or even collective) creative or interpretive agents, writers, artists, technicians, and readers are understood as co-operating with and within the literary work and the subjects and spaces it treats, a view which underscores their implication in the systems and structures mapped out in the projects themselves. Understood thus, reading becomes less of an objective interpretive act and more of a located, interactive, and productive wayfinding, a collaborative engagement *with* the works and the parts of which they are composed. The digital form enables producers to bring together

spaces, structures, infrastructures, and audiences toward the broader cultural shift represented by an ontologically pluralistic view of creative agency and collaboration. Rutz et al.'s assessment of the potential of a whole systems approach to provide a necessary reset to humans' perception of their primacy in the world echoes perspectives from the humanities and the social sciences that call for a broader view of our relations with the material: a view that attends to the influence which environment exerts on people as much as it does to the influence of humans on the world around them. In each context, then, and irrespective of disciplinary (or ontological) demarcations, a broader relational view affords an "opportunity to establish new kinds of ... care for the world that set ... a different agenda for the way we live" (Armstrong, *Safe* 60).

In applying a macroecological lens to the literary works comprising this genre, I integrate also the contributions of historians and cultural geographers whose work takes a macro-view, tracing the effects of colonialism and migration on the evolving shape and form of urban spaces and how those spaces in turn and over time influence the perceptions and experiences of those, human and non-human, who occupy them. Selena Couture, for instance, describes the role of city and provincial archives in producing space and constructing a narrative about a place and its origins that then assumes the status of historical truth and impartiality. Couture highlights the penetrability of historical records and the influence of storytelling—of narrative fabrication—on knowledge-production, poking holes in the process of "knowledge transfer, [and in the] cultural continuity" which we often accept unquestioningly (4). Katharyne Mitchell, too, unsettles the assumed logic and coherence of urban space as she outlines a Canadian city's foundation in and development around the imported values and myths belonging to an altogether different place and culture. By tracing the networks of colonial influence that run through our cities and spaces, Mitchell belies perceived spatial coherence and emphasizes the networks of influence that run

through and between spaces. In their respective works, David Ley and Sarah de Leeuw also point to the larger timeline on which we, current residents of Canada, are plotted as co-participants in the long narrative of “slow violence” the timeline traces (de Leeuw, “Tender Grounds” n.p.). The work of these and other cultural geographers and historians effectively illuminates the macroecology to which my project attends, marking the material, spatial, and temporal transfers, continuities, and ruptures that make up the system as a whole.

This project is divided into four chapters, each of which examines an example of a recent spatial, structural, and infrastructural ecology comprising the genre and engaging with gradations of materiality and ephemerality. The first chapter considers Sachiko Murakami’s ongoing interactive work *Project Rebuild*, which invites readers into the “neighbourhood” of hand-drawn houses populating its homepage. Rendered in the infamous architectural style of the Vancouver Special, each of the houses in this neighbourhood contains a poem that readers are invited to “move into” and “renovate,” resulting in a continual flow of tenancies, moves, and refurbishments through and across the project’s neighbourhood (“About” *Project Rebuild*). Murakami uses her “interest [in the Vancouver Specials’] replication, their persistence, and the reaction they produce in Vancouverites” to highlight concerns related to transience and displacement in Canadian cities, particularly Vancouver. This chapter argues that by way of its interactive multimodality, *Project Rebuild* leads reader-participants into a productive contingency, privileging not established patterns or fixed structures but instead a generous fluidity that makes space for more equitable social, material, and economic relations in urban Canada. In taking up *Project Rebuild*’s invitation to renovate the poem-houses in its neighbourhood, reader-participants take their place in the social and spatial specificity of

Vancouver and an active, embodied position in relation to the historical and ongoing material displacements and dispossessions enacted in and among that city's spaces and structures.

In this chapter I draw on the work of cultural geographers and historians such as Jean Barman, David Ley, Katharyne Mitchell, Selena Couture, and Sarah de Leeuw in order to apply a macroecological lens to Murakami's project and consider pattern drivers such as historical settler-colonial activity and migration on the evolution of cityscapes and on the forms and functions in and of *Project Rebuild* itself. These thinkers enable me to grapple with the context and consequence of Murakami's engagement with Vancouver's urban spaces and built structures. This chapter is also informed by Coast Salish bodies of knowledge, such as current and historical maps, statements, and declarations, and by the British Columbia Archives, sources which root my analysis in the spatial and cultural histories and knowledges of the Nations that pre-exist the settlement and development of what is now Vancouver. Given *Project Rebuild's* concerns with the built environment, this chapter also draws from recent discussions on art, architecture, and material culture, foregrounding the productive capacity of multimodality, formal innovation, and the contingencies associated with collaborative practice in order to reconsider social, structural, and spatial justice in urban Canada. The work of Sarah Wasserman, Rachel Armstrong, and Caroline Levine help me to develop in this chapter my ideas related to the creative repurposing of structures and infrastructures to ends that demonstrate a more equitable and intentional allocation of resources and space than does our current engagement with urban Canadian spaces and structures. Taken together, these diverse approaches provide a framework for reading *Project Rebuild's* workings and composition, its commentary on broader social and structural concerns, and the opportunities it provides for productively challenging existing inequities in urban Canada. Synthesizing these perspectives, this chapter examines the

ways *Project Rebuild*'s textual and visual components, its architectural and geographic contexts, and the structural and infrastructural systems according to which it operates work with the project's makers and participants to form an ecology whose composition casts into sharp relief Vancouver's own constellation of economic, social, and material structures, infrastructures, and spaces.

The second chapter argues that, in *Loss Sets*, Aaron Tucker, Jordan Scott, Namir Ahmed, and Tiffany Cheung generate a productive textual lacuna that forces audiences to read the gaps and omissions that form the compositional substance of the project. Formed almost entirely of absences, *Loss Sets* induces in readers a pre-emptive nostalgia and acts as a metaphor for humanity's relationship with nature and language after those things have ceased to exist. Tucker et al. occlude the project's primary textual material and thereby enact the loss of which they speak, compelling readers to confront both the absence of conventionally readable text and the degradation of natural spaces and systems. Tucker and his collaborators' use of 3D printing to "comment on" loss inflects the project with irony, since it uses processes and technologies that contribute to the very forms of loss it claims to document. In this chapter I draw from the work of scholars in the fields of the digital humanities, industrial ecology, and architectural theory to outline the current conversation around 3D printing and sustainability and to develop a fuller understanding of the material implications of 3D printing and its movement through the life cycle, from resource extraction to lab extrusion to end-of-life disposal and (non)degradation. Architectural theorist Rachel Armstrong, for instance, calls for a broader relational view that recognizes the materials and resources extracted, used, and discarded in the process of 3D printing when she argues that the customization and access that process affords closely align with the "personal freedom" that has produced the conditions of our current geological era ("3D

Printing” 14). Industrial ecologist Ried Lifset, too, promotes a broader relational view of 3D printing than the one typically advanced by its enthusiasts. Lifset applies a macroecological lens to the process, noting that any potential environmental benefits 3D printing may offer, at any stage of its lifecycle, are contingent upon the behaviours of the humans who make, use, and dispose of its products. Given these parallels and contingencies, Tucker et al.’s use of additive deposition processes to treat the subtractive effects of environmental and linguistic degradation casts an ironic shadow over *Loss Sets*, and in this chapter I take that tonal marker as a launching point for my analysis of the roles and responsibilities of artists and technicians in the age of the Anthropocene, ultimately issuing a renewed call for an ethical and equitable use of materials and resources, including technological ones: a use which recognizes the ontologically varied agents implicated in our creative processes.

In the third chapter I turn to Madeleine Thien’s *Vancouver of the Mind: On Hastings Street*, which I read as a living document and a digital ruin, a decaying virtual structure whose gradual degeneration over the years since the project’s creation has produced a functionally idiosyncratic relic of the work’s original iteration, but whose liveliness persists and presents a compelling analogue to the displacements and mutations *Vancouver of the Mind* observes in the city it takes as its subject. In this chapter I argue that Thien’s project approaches Vancouver’s historic and ongoing displacements and dispossessions by formal and structural means, applying the logic of digital multidisciplinary and invited collaboration to its examination of the gaps, absences, and injustices occurring in and emerging from its spatial focus. In this way, Thien constructs a text whose heterogeneous, fragmented, and (now) degenerating digital form reflects, on the one hand, the precarity of urban streetscapes and social coherence, and embodies, on the

other hand, a living, changing archive of the in-between and the impermanent along Vancouver's Hastings corridor.

In order to examine the effects of pattern drivers such as global capitalism, economic disparity, forced displacement, and progressive obsolescence or ruination on the evolution of the cityscape Thien represents and on the forms and functions of her digital project, this chapter draws on the work of thinkers who have grappled with Vancouver's spaces and economies (and spatial economies): historian Paul Stephens, curator Melanie O'Brian, and geographer Trevor Barnes, for instance, have each argued that present-day Vancouver is a product of the mutations it has undergone, changes which render the current city a composite of its previous iterations. The work of nostalgia and ruination scholars Georg Simmel, Svetlana Boym, and Vincent Miller and Gonzalo C. Garcia, too, informs this chapter by enabling me to read the decaying state of the project itself—the lively amalgams of the inadvertent produced through its process of decomposition. In this chapter, these thinkers push me to consider the effects of degeneration, contingency, and collaboration on the dynamic system that is *Vancouver of the Mind*, and to observe the “affective, embodied experience” of the subject in traversing its ruins (Miller and Garcia 167). The layering and mutability signaled in these thinkers' work echo the composite and decaying nature of Thien's project itself, and these characteristics animate my consideration of how not only the patterns but the pattern *drivers* signify in *Vancouver of the Mind*, what they tell us about the roles played by economic, social, spatial, and other forces, both in the archive of the impermanent Thien's project represents and in its spatial referents.

Beyond reading the ways the work's formal and structural elements reflect current and historical shifts across Vancouver's social and spatial landscapes, however, this chapter troubles the idea of the archive itself and considers the temporal complexity enacted when a durational

and enlivened mode has been abandoned. Is an archive always “living,” even once no more contributions to it are made and once the materials of which it is composed begin to degrade and its holdings to disperse? What is being recorded or preserved by an archive in the process of degeneration? How can the changes it undergoes be read as reflective of a society’s shifting views and priorities? How can we read this complexity as a metaphor for our own shifting relations to the components and totality of the world around us? The institution of *the archive* is conventionally one that invites trust, one whose perceived neutrality and objectivity provides a sense of comfort¹⁹ and reassurance to those who consult it, a sense that what it houses and safeguards is “true”—or at least truthfully representative—and *significant*, worthy of preservation. What is the significance of archival ruination, both in terms of Thien’s “in-progress” multimedia assemblage, and in terms of our conceptions of what is worth preserving? In relation to my larger project, these questions carry weighty ecological implications, since to abandon the archive—and thus the idea of a persistent vibrancy, a record-keeping of relations, and the inherent value of intentional preservation—may be to settle back into our accustomed hubris and complacency in relation to the world around us.

The final chapter carries forward my consideration of the archive in turning to Fred Wah and the High Muck a Muck Collective’s 2014 collaborative interdisciplinary digital project, *High Muck a Muck: Playing Chinese: An Interactive Poem (HMM)*. This chapter applies a whole systems approach to *HMM* in order to sketch the kinships and continuities it discloses between histories and topographic forms such as rivers, inlets, and mountain ranges, drawing out the patterns emanating from the analogous nature of their processes of development and their influence on the composition and condition of their respective environments. In attending to

¹⁹ See my discussion in chapter 1 on Vancouver’s first city archivist, Major James Skitt Matthews, and Selena Couture’s critique of his inventive production of Vancouver’s early “historical record.”

these likenesses, this chapter also examines the ways *HMM* is formed from varied and divergent elements, including subjectivities, disciplines, temporalities, and spaces. I suggest that *HMM*'s multimodal interactivity positions it to productively explore various forms of kinship and relation by composing what geographer Eric Magrane calls “an open space of multi-vocal story” (“On Form” 11)—not for the purpose of diminishing the individual perspective, but rather in order to locate the self within larger relational structures and governing systems, including those related to oppression, privilege, and the distribution of power.

In this chapter I argue that, in *HMM*, rivers, migratory routes, mountain ranges, and other arterial forms and formations work in conjunction with the project's multimodality to materialize relational structures and embed the reader in the spaces the work figures, thereby cultivating in audiences an embodied, contextualized reading process. I examine these arterial forms' composition by depositional, erosive, or otherwise incremental processes that mirror the sedimentary composition and function of archives themselves: the sifting, sorting, and filtering that occurs in their assembly and maintenance; their aggregation of heterogeneous parts into a more or less coherent whole; and, also, troublingly, the privileged position or status afforded certain elements in that aggregate by way of the compression, compaction, and cementation of the elements composing it. In applying a macroecological lens to my consideration of the spatial and compositional ecologies *HMM* embodies, this chapter draws on the work of a diverse range of thinkers and scholars. The works of historians Lily Chow, Helen Lee, and Richard White, geologist Anne-Sophie Fanget, and cultural geographers Harriet Hawkins, Sheila Hones, and Eric Magrane, for instance, enable me to ground this chapter in geo-spatial and historical specificity. The thinking of artists David Garneau and Gu Xiong, architect Matteo Pericoli, and speculative mapmaker and historian Frédérique Aït-Touati allow me to bring an embodied,

hands-on perspective to the High Muck a Muck Collective's project. And the work of literary scholars—such as Lily Cho, Rita Wong, Lee Maracle, and Lisa Moore, and Jussi Parikka—and digital humanities scholars—Bethany Nowviskie, and Ruth Panofsky and Kathleen Kellett, among others—enable this chapter's grounding in Canadian literary criticism and in a clear conception of how reading, especially reading digitally, can be considered “embodied.”

Importantly, however, this chapter also draws on historical records, archival records, and local news sources to ensure it remains spatially located. Through a lens that engages these diverse but complementary perspectives, in this chapter I read the patterns emanating from the High Muck a Muck Collective's project and the intersections those patterns enact with forms of social, economic, and environmental injustice.

Together, these chapters delineate a genre of cross-disciplinary, geographically located, collaboratively produced Canadian digital literature whose interactive multimodality draws readers into its spaces and structures, positioning them as wayfinders in the works' ongoing processes of development—in what Lisa Robertson calls its “provisional local textures of becoming” (*PhyllyTalks*). By actively engaging audiences, this genre attunes readers to the web of ecological, economic, industrial, and cultural complexities facing the real places these works examine, and produces through that attunement a localized, participatory readership better positioned to navigate those complexities. The macroecological lens I apply to these digital projects renders this thesis a kind of mapping project, through which I aim to read the emergent order—however transitory—emanating from the indeterminacy this literary genre envisions. In attending to the material, geographic, and spatial concerns running through and across these works, and to the forms of decline or obsolescence to which those concerns speak, I attempt a form of cartography *for* the Anthropocenic era, one that charts the inter-influential resonances of

humans and non-humans alike. To extend the map beyond the geospatial or geopolitical is to “extend the idea of corporality ... [in order] to avoid some of the deplorable essentialism that clings to the corpus as merely human” (Robertson and Steve McCaffery 33); it is also, I suggest, to extend the practice of cartography itself in order to consider interests, territories, and experiences beyond those of the mere human—and beyond those only of “Canadians.” Indeed, although this project focalizes *Canadian* landscapes and locations, and although its primary texts are authored by *Canadian* writers, its concerns extend well beyond “Canadian” cultural or national borders. It transcends these boundaries in order to participate in broader debates about the intersections between digital and natural ecologies, the affordances of collaborative process and production, the patterns of transnational politics and the forms of dispossession and displacement they facilitate, *and* the possible role of cultural production in addressing the challenges presented by humanity’s current historical and geological moment. Thus, while this project’s roots and allegiance remain “Canadian,” it also looks up and out, charting its course for a broader perspective able to accommodate what Doreen Massey calls the world’s “[l]oose ends and ongoing stories” (*For Space* 107). This project is, then, ultimately an optimistic one, applying an expansive lens to the emergent, the indeterminate, the provisional, the transitory. In so doing, it revises the forms of cartography so foundational to this country’s early settler-colonial project²⁰ and takes up the work of many Canadian²¹ and other writers to employ a “counter-cartography” (Leow) for the production of new “accurate” maps (Eng)—*accurate*, but not static. This project aims to cultivate a set of observational tools and an active, responsive stance in relation to that which we observe—*not* for the purpose of establishing a monolithic (or

²⁰ See, for instance, the early-settler narratives of cartographers Samuel Hearne and David Thompson.

²¹ The chapters of this project discuss several Canadian writers (beyond those who authored its four primary texts), who, in different ways, participate in this larger project.

nationally-specific) “truth” about those entanglements, but rather to delight in the entanglements themselves and to hold them, loosely, up to the light for observation, to trace their emergent patterns and their interrelations, before releasing them back to their continued evolution. This work aligns with Eng’s call for new kinds of maps able to represent the flux of the world: a “how it is” that is constantly changing (*Mercenary English* 78, 80). Much like Thien’s *LETTERING* and “A Room at the Turn of the Corner,” which call our attention to the conflicted nature of the material by depicting materiality as both enduring and finite, I aim here not to synthesize, harmonize, or simplify discontinuities and discordances, but, rather, to attend to, trace, and wonder at the contradictions themselves, and to consider what attention might afford us in charting a way through our current, troubled relations with materiality.

Chapter I

Rewriting the City:

The Matter of Collective Revision in Sachiko Murakami's *Project Rebuild*

Through the electric forest, secure and walkable in darkness,
wind blows without incident or risk of falling limbs out over
the inlet, the pure velocity of a single ahistorical breath.

– Alex Leslie, *Vancouver for Beginners*

With its basic floor plan and simple construction, the Vancouver Special
is ideal for creative solutions and inventive ideas.

– Vancouver Heritage Foundation

In this chapter I will examine Sachiko Murakami's ongoing "experiment in collaboration" *Project Rebuild*, a body of interactive digital poetry which responds to housing trends in Vancouver, and which invites readers to "inhabit" and "renovate" poems represented on the screen as houses in the architectural style known as the "Vancouver Special." Scholars who have addressed this project have examined it alongside Murakami's single authored poetry collection *Rebuild* (2011) and have noted the ways poetry and property intersect within the two works. Emily Ballantyne writes that *Rebuild* and *Project Rebuild* trouble the notion of private property by positioning both poetry and residential real estate as public commodities for occupation and exchange. Ballantyne argues that Murakami "places her poems on the rental market [in order to] create alternative, language-based communities" (188) that "undermine the political value of private ownership as a concept" (178). Joanne Leow examines the intersections Murakami's work enacts between poetry and property by positing literary innovation as a lens through which to view and conceptualize Vancouver's long and ongoing record of transformation by transnational capital. Leow writes that Murakami's poems "unsettle the breathless acceptance of the rapid movements of global capital and the uncanny duplication of urban space by repeatedly challenging this abstract space, reminding us constantly of the reality

of the human bodies that inhabit it” (152). These discussions have highlighted the ways Murakami uses tropes of construction and renovation for the purposes of building or extending communities across time and space—*human* communities that live in, circulate among, and repeatedly reconfigure the built structures that occupy Vancouver. These essays bring into sharp focus Vancouver’s resident non-owners, past and present, in a way that both echoes and contributes to the effort in Murakami’s work to redistribute agency more equitably and to loosen the deterministic grip of capital and ownership while foregrounding the creative acts of community building and art making.

I agree with Ballantyne’s suggestion that Murakami emphasizes “rebuilding as a rhizomatic process that has the power to undermine and reimagine the concept of home and home ownership in Vancouver” (178), and I agree with Leow’s assertion that “the legacy of colonial dispossessions of [I]ndigenous and diasporic subjects” haunts Murakami’s work and reflects “an anxiety of not belonging and not having any control or say in the space that one inhabits” (140); however, I want to push the inquiry into Murakami’s project past the consideration of the human owners and residents with whom Ballantyne and Leow are concerned and to suggest that *Project Rebuild*’s particular interactive multimodality and spatial locatedness require readers to engage not only with its human operators and contexts but also with the project’s—and Vancouver’s—non-human elements. In these pages, therefore, I want to extend the existing conversation about *Project Rebuild*’s work to redistribute agency across the social, spatial, and structural fabric of Vancouver by redefining the bounds of the “community” at work in Murakami’s digital collaboration and by considering the project’s function as a form of activism toward more equitable social, material, and economic relations. Specifically, I argue that to take up Murakami’s invitation to renovate poem-houses in *Project Rebuild* is to become

immersed in the social and spatial specificity of Vancouver and to recognize one's active, embodied position in relation to the historical and ongoing material displacements and dispossessions enacted in and among Vancouver's spaces and structures. I will examine the ways the project's textual and visual components, its architectural and geographic referents, and the structural and infrastructural systems according to which it operates work with the project's makers and participants to form an ecology whose composition casts into sharp relief Vancouver's own constellation of economic, social, and material structures, infrastructures, and spaces—and the class-inflected notion of “appropriateness” circulating in the context of Vancouver's built environment.

In this chapter I consider *Project Rebuild* and Vancouver's built environment by drawing from the thinking of cultural geographers and historians whose work addresses the impact of historical settler-colonial activity and migration on the evolution of cityscapes. The work of Selena Couture, David Ley, Jean Barman, Katharyne Mitchell, and Sarah de Leeuw, for instance, is foundational to my thinking in these pages, and facilitates a fuller understanding of the context and consequence of Murakami's engagement with Vancouver's spaces and structures. I am also informed by Coast Salish bodies of knowledge—including maps, reports, band statements, and historical declarations—and by the British Columbia Archives; these knowledge sources help root my analysis here in spatially located and culturally specific histories and perspectives. Given *Project Rebuild*'s pronounced engagement with form and the built environment, in this chapter I also draw from recent discussions on art, architecture, and material culture in order to foreground the productive capacity of multimodality, formal innovation, and the contingencies associated with collaborative practice—creative modes that can help us rethink social, structural, and spatial justice in urban Canada. To develop these ideas here, I draw from the work of Sarah Wasserman,

who posits that art and literature can “reveal the structures of the world as it is while making space for the possibility that its infrastructures might be used differently” (138). I draw also from the work of architectural theorist Rachel Armstrong, whose attention to the ecological implications of the modern city, which she describes as “[i]solationist, sterile, exclusive, infertile, [and] solipsistic,” both highlight its role as “an agent of the Anthropocene” *and* present an “opportunity to establish new kinds of creativity, intelligence and care for the world that set ... a different agenda for the way we live” (60). I also apply Caroline Levine’s idea that it is uneven and contingent “arrangements,” rather than “coherent system[s],” that give shape to social structures and relations (17). These perspectives place an emphasis on the creative possibilities inhering in spaces and structures, and on the ways those things can be productively adapted and reconceptualized. Wasserman’s and Armstrong’s work enables a more expansive view of our relations with the material world, one that attends to the influence which spaces and structures exert on people as much as it does to the influence of humans on the world around them. Levine’s thinking supports the more expansive view proposed by Wasserman and Armstrong by allowing non-dominant structures and systems to supersede established forms in our conception of how those systems and structures exert their influence upon the world. Taken together, these diverse approaches provide a framework for reading *Project Rebuild*’s workings and composition, its commentary on broader social and structural concerns, and the opportunities it provides for productively challenging existing inequities in urban Canada.

Careful attention to the ways we interact with the material world is more urgent now than ever: we are confronted daily with the concrete and intensifying consequences of the human actions and inactions which have produced the Anthropocenic conditions under which we live. In attending to the materiality of Murakami’s shifting, multimodal, placed-based, collaboratively

produced project, I am emphasizing the importance of examining the historical and current relations between and among humans and the nonhuman world, and I am mobilizing the discourse around ontologies, agencies, and networks of influence to better understand the work *Project Rebuild* does toward highlighting and unsettling social, spatial, and structural inequities in Canada. I hope that this chapter can help to synthesize recent critiques of new materialism into its contemporary application. What I mean is that by reading the materiality of *Project Rebuild*, I am explicitly connecting methodology and materiality: the concrete forms and implications of the systemic inequities and forms of violence that continue to emanate from Vancouver's colonial foundation and early incorporation.²² By bringing new materialism to bear on Murakami's project and thus on the legacy of displacement and dispossession inhering in the city it reflects, my hope is that my analysis here can participate in the larger effort to remediate new materialism's record of occluding Indigenous thinkers' "millennia of engagement with the sentient environments ... that enmesh people into complex relationships between themselves and *all* relations" (Zoe Todd 6, emphasis original). In considering the interontological and multiply agential workings of *Project Rebuild* and their embeddedness in the specific, unceded Musqueam, Squamish, and Tsleil-Waututh territories which Vancouver occupies, I aim to bring a materialist perspective to the historical and ongoing displacements and dispossessions by which both *Project Rebuild* and Vancouver are contextualized. A new materialist lens serves to remind readers that *Project Rebuild* is more than an interesting poetic experiment: the project illustrates and emphasizes the concrete, lived experience of the social and spatial inequities that result from Vancouver's longstanding "progressive narratives of global capitalism" (Gabrielle Moser 57). These inequities, Todd observes, are the result of the intertwining of politics, law,

²² The City of Vancouver was incorporated in 1886, the year before the CPR's arrival at the Vancouver terminus.

agency, and relationality (18), and it is this shifting constellation of forces and pattern drivers—human and non-human—that I wish to examine in relation to Murakami’s project here. It is from this embeddedness in contextual specificity that I approach Murakami’s work. To take up *Project Rebuild*’s invitation and engage with the urban spaces and structures the project represents is to take the opportunity the project offers to “foster ... a commitment to mobilize [oneself]” (Sarah Hunt, “Violence, Law” 2)—to recognize and fully occupy one’s place in the interontological constellation the project represents.

First, however, I will further contextualize my discussion here by offering a brief history of Murakami’s project,²³ which took shape over time, moving across generic, authorial, and artistic boundaries as it developed. The work began as a single poem, titled “Vancouver Special,” which Murakami wrote about the style of residential architecture widely adopted for single-family homes built in Vancouver between approximately 1965 and 1985 (Vancouver Heritage Foundation).²⁴ Curious about the possibility of “inhabiting a poem,” Murakami processed that first poem through Google Translate to “four languages of people [she has] known who have lived in Vancouver Specials—and back to English again” (*Project Rebuild*, “About”). Murakami writes that these “flash inhabitations” resulted in four new poems²⁵ possessing “a sameness with subtle differences” (*Project Rebuild*, “About”), and she invited other poets²⁶ to “move in as tenants of the poems, to paint the walls, change the faucets, [and] knock down whatever ... didn’t fit their visions” (*Project Rebuild*, “About”). The poets who responded to this

²³ For a more detailed account of *Project Rebuild*’s process of development, see, for instance, the project’s “About” page and rob mclennan’s 2015 interview with Murakami (Jacket2).

²⁴ For a rich and abundant archive of photographs of Vancouver Specials, see K. Higgins.

²⁵ These four poems, each entitled “Vancouver Special,” were also published in Murakami’s collection *Rebuild* (2011).

²⁶ See Murakami “Interview.”

invitation²⁷ produced revisions which joined Murakami's own four "Vancouver Special" source poems as the first poem-houses in *Project Rebuild*'s "neighbourhood," which itself is rendered visually on the project's website in the style of architect's sketches, rendered in black ink on a white background and arranged in a grid-like formation on the screen (see Fig. 2). Since that time,



Fig. 2. Screenshot from *Project Rebuild* of Marian Churchland and Brandon Graham's line drawings.

the "neighbourhood" has grown to over 500 poem-houses, as poets, scholars, students, and others have taken up Murakami's open invitation to "move in to any poem/house in the neighbourhood" (*Project Rebuild*, "About"). Each contributed poem-house, once added to the neighbourhood, enters into the shifting structure of the project, becoming editable by other reader-contributors, so that the work as a whole is in the continual process of collaborative revision—a network of interconnected poetic structures, through which it is possible to trace each contribution back to its originary poem.

Renovating the Poem-House

The speakers in Murakami's four source poems reflect on the architectural specificity of the urban spaces they occupy, and they wonder whether there is room for their families within

²⁷ These poets were Jason Christie, Roger Farr, Emily Fedoruk, Jennica Harper, Ray Hsu, Larissa Lai, Alex Leslie, April Martin, Lisa McInnis, Meredith Quartermain, Nikki Reimer, Jacqueline Turner, and Rita Wong (*Project Rebuild*, "About").

the economic and spatial parameters imposed by Vancouver's real estate market. These speakers reflect on the ways one's housing impacts one's sense of self-worth and personal identity, asking, in one instance,

How can I fit

my family into the equation?

How do we make the loan?

How much land allocated and to whom assigned?

What can I not afford?

How can we make do

looking like elsewhere? How do I make *me*

less abstract? Home, but not of it.

The grace of a lawn, stucco sophisticated. ("Vancouver Special," *Project Rebuild*, emphasis original)

In this passage, the speaker grapples with the financial burden Vancouver imposes upon her own life; however, she also wonders what implications this financial pressure might have for her capacity to achieve a fully developed sense of self. The speaker expresses a yearning to claim the kind of personal identity she perceives home ownership to enable: an identity that is "less abstract"—by virtue, perhaps, of the financial, spatial, and material rootedness popular perception attaches to home owners in Canada—and one upon which home ownership casts a certain glow: a degree of "grace" and "sophisticat[ion]" gained by proprietary association with a lawn and stucco siding (57).²⁸ It is significant that for the speaker in this source poem, grace and

²⁸ Adrienne Brown and Valerie Smith also note the conflation of property ownership and perceptions of personal worth or character development when they ask how we came "to attach morality to homeownership" (*Race and Real Estate* 6). Leow observes the longer lineage of property ownership's affective entanglements when she notes the "fraught intersections between immigrant property owners in Vancouver and the legacy of colonial dispossessions

sophistication are states achieved by way of home ownership *even when* the home owned is of a “large, plain [style,] commonly considered ugly” (*Project Rebuild*, “About”). The relationship between ownership of even an “ugly” house and a state of grace speaks to the degree to which home ownership in Vancouver is both a social requirement and beyond average means. It is this tension to which Murakami responds, both in her “Vancouver Special” source poems and in *Project Rebuild* itself.

Murakami writes that in initiating the project she was motivated also by the Specials’ “replication, their persistence, and the reaction they produce in Vancouverites”—a reaction, she writes, which ranges from aversion²⁹ to “alarm,” and which has sparked heated debates related to the notion of architectural “appropriateness” in Vancouver’s residential cityscape (*Project Rebuild*, “About”). The broader range of participants and respondents that results from Murakami’s open call for poet-renovators and her attention to Vancouver residents’ responses to their architectural and material surroundings produces in *Project Rebuild* a more complex network of influence determining the evolving form of the project. Murakami initiates the work—but makes the position of “producer” a shared one, effecting a broader receptivity to the stimuli Vancouver’s material landscape presents *and* facilitating a more varied expression of responses to those stimuli. The broad invitation to collaborate which *Project Rebuild* extends privileges process over product by requiring contributors both to alter the work of others and to offer up their own work for revision. The project thus privileges collective over individual

of [I]ndigenous and diasporic subjects” (140). These intersections, Leow observes, point “to the invisible confluences of body and home ownership” and gesture also toward “the dispossession of Native peoples in colonial times, ... the [forced removal of] Japanese Canadians during World War II, and the effects of the socially unsustainable property prices in contemporary Vancouver” (140). These intersections demonstrate how “the personal is deeply implicated in the political and in the production of urban space” (140).

²⁹ Murakami writes that “the Specials are large, plain, and commonly considered ugly in comparison to their mock Tudor, Craftsman, and West Coast Modern neighbours” (*Project Rebuild*, “About”).

authorship and creative process over final product, while also producing a varied and shifting neighbourhood of voices whose heterogeneity mirrors that of many actual urban Canadian neighbourhoods. By imposing on its audience an engagement with the work that is both collaborative and spatially located, the project asks its reader-participants to recognize their own position in relation to the appropriation and displacement enacted over the course of Canada's long and ongoing record of colonial violence.

Despite the way the project privileges the collective and the processual over the individual and the product-oriented, there exists in the work a tension between its malleability and the marks of individual ownership it bears, one that is reflected in many of the renovations contributed to the work. While *Project Rebuild* allows users to attach to their renovations their name and bio, these affordances do not always determine how contributors engage with the project. Users do not always attach names to their contributions, for instance, and when they do it is not always in ways that clearly identify them as individuals. Many contributions to the project have either no author name attached to them or are marked with a non-descriptive pseudonym such as "j," "poet," or, more pointedly, given the project's aims to recognize a more broadly distributed agency, "n/a." Additionally, relatively few of the poem-houses have an author bio attached to them, and some contributors use that space for something other than a conventional bio. Contributor Carellin Brooks's bio space, for instance, reads, "always wanted a place to call her own," a statement that reflects the precarity of life lived under the perpetual threat of "renoviction"³⁰ and invokes the legacies of dispossession and displacement resounding in Vancouver. Brooks's is an ironic statement, too, since her renovated poem-house becomes susceptible to occupation as soon as it appears in the neighbourhood. In another instance, Tova

³⁰ Or, most recently, encampment clearance, such as that undertaken by the Vancouver Police in the Downtown Eastside in the spring of 2023 (see Bridgette Watson).

Gerge's bio space contains a second poem—a renovated version of her contribution to the project's main page—a use which turns the available bio space into an annex of the main neighbourhood itself. In the annex she constructs, Gerge fleshes out her principal contribution, which, as its title indicates, is composed entirely of nouns. Gerge's main page poem, "Stripped to the Noun 2; Ready for Rebuilding," is an exact replica of Gary Barwin's antecedent, a poem-house Gerge "moves into" (to use Murakami's formulation) without changing anything, not even the title.

Gerge's engagement with the site is compelling, first, because by re-using an existing main neighbourhood structure instead of undertaking a renovation there she underscores the ecological impact of Vancouver's evidently insatiable appetite for architectural renewal and renovation. Her re-use of an existing poetic structure is an act of conservation, and one of resistance to the trends and pressures applied by booming housing and construction markets such as Vancouver's—what Murakami calls that city's tendency continually "to tear down and rebuild itself" (*Project Rebuild*, "About"). Gerge's re-use of Barwin's poem, and the material, ecological, and economic resonances which that re-use carries, suggests that not every renovation is warranted—and, perhaps, neither is every instance of poetic expression. Second, Gerge's engagement with *Project Rebuild* is compelling because her replication of Barwin's poem speaks to Murakami's own concern with replication: the way architectural styles, and the Vancouver Special in particular, can spread across neighbourhoods, contributing to the evolving social and structural landscapes of a city. Murakami writes that "[t]he Vancouver Special persists in every neighbourhood in Vancouver," and her four source poems query the social and spatial implications of that architectural replication and the suburban creep it houses (*Project Rebuild*, "About"). The source poems all address the easterly migration that has resulted from the

economic and spatial pressures Vancouver imposes upon its residents. One source poem asks, in the tone of a polite photographer, “Could you move to the east? A little farther?” (“Vancouver Special,” *Rebuild* 51).³¹ Another source poem reverses the polite order of that request’s opening words, producing an imperative which, despite its subsequent question marks, *tells*, rather than asks, its listener, “You could move a bit / ‘to the east? A little more?’” (*Rebuild* 51, emphasis original). The emphatic instruction that results from this revision dictates not only a move but also the end point of that relocation. A third source poem asks, “Once more, / this time farther east, with *feeling*,” an emphasis which lends a theatrical air to the suburban creep the poem recounts, asking residents not only to relocate but also to *perform* the emotions associated with that move (“Vancouver Special,” *Rebuild* 51, emphasis original). In these ways, Murakami’s source poems emphasize Vancouver’s economic and spatial pressures and the relative lack of self-determination available to residents facing those pressures.

Gerge’s relocation to an annex, and the way she “dress[es] into story” her poem’s skeletal antecedent, works to observe and simulate the replication of the Vancouver Special across the city and into the suburbs; however, it also works to *reinject* the subject into a cityscape that undermines its livability through the economic and spatial strictures it imposes (“Dressed into Story 3”). By “subject” here I do not mean simply the “I,” “we,” and “you” present in Gerge’s skeletal main page poem. Instead, I suggest that Gerge’s annex-poem decisively re-centres/replaces the subject—and, in particular, the *female* subject—in the framework of her replicated poem-house. “Dressed into Story 3” begins with the pronoun “she” and attaches to that subject verbs, inclinations, and degrees of influence which emphasize its agency and resolve:

³¹ While the four “Vancouver Special” source poems appear in *Project Rebuild* itself, because the placement of those (and all) poems in the project shifts each time a reader engages with the site, for the sake of easy reference (both my readers’ and my own) in this chapter I am citing the source poems from Murakami’s poetry collection *Rebuild* instead of from *Project Rebuild*.

She was an attempted beauty
no indication she would leave.

Asked for her responses,
questions.

...

The way she looked upon the land
it made me think... (*Project Rebuild*)

These lines illustrate a self-determined subject's choices, her resistance to external pressures, and her influence upon those around her. This subject's ideas are elicited and effect change in the speaker's thinking. She resists the pressure to relocate. She makes attempts, asks questions, and commands a perspective. This subject's influence and self-determination are also abundant enough to spill over into her material surroundings, which then begin to assert their own agency and resolve: "the forest insisted on being trees / the city the city" ("Dressed into Story 3"). The annex-poem ends by reasserting the centrality of the city itself: addressing a long forgotten acquaintance, the speaker says, "You, I never thought of you / were you somewhere up east?" ("Dressed into Story 3"). In these lines the city is central, the margins an afterthought, and those absorbed by the periphery easily forgotten. In her contribution to the project, Gerge emphasizes the tensions between centre and margin, between agency and vulnerability. She narrates resistance to the pressures of migration to the periphery that the city imposes. Both structurally and textually, her engagement with the project responds to Murakami's concerns with de-territorialization and the re-distribution of agency. Both Gerge and Murakami make space in the poem and in the city for heterogeneity, enacting what Jeff Derksen argues is the necessity that "an oppositional poetics ... abandon the position of the self-assured centre in order to provide an

alternative subjectivity and to somehow reflect the complicated and historically entangled space in which this subject dwells” (“Sites” 154). By re-placing the economically vulnerable but self-determined subject at the city centre which tries to eject her, Gerge’s annex-poem reinforces Murakami’s challenge to the idea of a singular, central, *authorized* subjectivity.

Translation

While Vancouver’s architectural specificity decisively influenced *Project Rebuild*’s inception and development, so too did the city’s linguistic heterogeneity. At the outset of the project, when Murakami processed her first poem through Google Translate, she effectively imprinted the project with linguistic traces specific to some of those residents who occupy (or have occupied) Vancouver Specials, a move which credits with nuance the experience of living in houses not generally perceived as possessing, expressing, or even allowing for variation. These linguistic traces take the form of slight variations to syntax, prepositions, line breaks, and vocabulary. To attend to these compositional variations is to attend to the shifts in tone and emphasis across the versions of the *Project Rebuild* source poems, and to track the perceptual variations those shifts represent. One source poem, for instance, asks,

How may I fit my family into the equation?

How will we make the mortgage?

How much land will be allotted,

and to whom? What can’t I afford? (“Vancouver Special,” *Rebuild* 51)

Another poses those questions slightly differently:

How can I fit

my family into my mortgage?

How can I live on the land

allotted? What can't I afford? ("Vancouver Special," *Rebuild* 53)

In their repetition, doubt-tinged inflection, and use of the interrogative form, each of these poems conveys an anxiety about and vulnerability to the spatial and economic constraints imposed by the city; however, they also reflect the tonal, emphatic, and structural shifts that occur both in the translation process and in the movement of subjects through an architectural structure. The first of these two source poems possesses a staccato rhythm. It is more decisive in its use of line breaks and punctuation than its counterpart, more often starting a line at the beginning of a new interrogative sentence. It is also more direct in tone and word choice than the second of the two poems, which is more discursive by comparison. The differences between these two source poems reflect the differing values and priorities among subject-residents, the different ways they place emphasis and experience housing precarity, even when confronted with the same material and economic constraints. These poems' similarities and dissimilarities reflect the "sameness with subtle differences" that Murakami observes among the "flash inhabitations" produced in the translation process at the inception of the work ("About"). By imprinting her source poems in that way, Murakami built heterogeneity into the foundation and framework of *Project Rebuild*, making difference intrinsic to every aspect of the project's subsequent development and asserting multiplicity as a founding principle of the work. This move is significant also because of the way it reconceptualizes the Vancouver Specials themselves, departing from refrains about these structures' aesthetic shortcomings and signaling instead the richness and variation housed within their walls. The contingencies inherent both to the translation process and to collaborative practice, and the variety of experience and perspective residents bring to the architectural spaces and cityscapes they occupy, all work to telegraph "the structures of the world as it is" and leave

abundant “space for the possibility that its infrastructures might be used differently” (Wasserman 138).

Murakami has explained that her use of Google Translate in the early development of *Project Rebuild* was a way to investigate “how the poem might be inhabited by different tenants,” and the kind of variation these inhabitations would produce (“Interview”). She has noted that this drive was an effort to “loosen... [her] grip on the poem as a finished, Beautiful product, held hallowed forever on the page” (“Interview”). It is a move that sets the project beyond the scope of the conventional author-work dyad and enables a view of the poem as a malleable and interactive space—characteristics which, Murakami observes, mirror those of the Specials themselves. The Vancouver Special, she notes, is “essentially a duplex with its units stacked, which allows for ... dwelling possibilities [different from those made possible by] the traditional single family detached” home, and, she continues, despite these houses’ “sameness [and their] stark utilitarian facades,” they also embody “social and political complexities” and even an element of “the Beautiful” (“Interview”). In addition, by making the poem a fundamentally changeable unit of language, Murakami undermines the idea that the goal of writing poetry is to produce a finished product. Instead, she positions process—and, in particular, shared process—as a central concern of poetry-making. “Poetry,” she writes, “is a community project in which we are all participants: poems are written in context and in conversation” (*Project Rebuild*, “About”). By building linguistic variation into her poems, attaching diversity to an architectural style commonly maligned for its perceived homogeneity, and inviting contributors to re-make her own and others’ poems, Murakami establishes a counter-narrative that attaches an alternate set of values and functions to both architectural forms and poetry, and

in so doing takes up Wasserman's invitation to repurpose the structures and infrastructures of "the world as it is" (138).³²

Conservation, Community, "Character": The Vancouver Special

The perception of the Vancouver Specials as lacking character and distinction extends beyond individual neighbourhoods and into Vancouver's administrative and regulatory channels. The City of Vancouver has passed heritage conservation guidelines that require new houses built in neighbourhoods whose architectural heritage is considered significant—such as, but not only, upscale Shaughnessy—to conform to "the character and quality of pre-1940 houses in the area," to promote the "estate-like image" of the neighbourhood, and to uphold the "standards of maintenance and design" set by both the neighbourhood's older houses and their landscaped³³ properties ("First Shaughnessy" 1.4). The City's official response to newer construction speaks to the perceived threat posed by the Specials and other architectural styles considered devoid of "authentic"³⁴ character, and it conveys the idea that established neighbourhoods must be protected by policy and law from the kind of homogenization the Vancouver Specials represent. In passing its heritage conservation guidelines, the City sets out to defend architectural and

³² This form of poetics is one which Heather Milne, citing Rosi Braidotti, might find "enacts the very 'displacements of our world-view away from the human epicentre' and 'establishes a continuum with the animal, mineral, vegetable, extra-terrestrial, and technological worlds'" (*Poetry Matters* 31).

³³ Katharyne Mitchell writes that the "use of English architectural and landscape symbols in Vancouver's west-side neighbourhoods was deliberate. The CPR, which owned most of Point Grey, intentionally modelled the elite subdivision of Shaughnessy Heights on the pastoral myths of the English countryside. By claiming an ongoing, albeit transformed English tradition in the new spaces of Vancouver, an easy, unhurried grandeur and an idyllic, pre-industrial way of life gradually became recognized and incorporated as the symbols and codes of the new suburban elite of 'British' Columbia" (150). The CPR subdivided Shaughnessy Heights for lot sale in 1909, marketing the area as "an exclusive suburban development," a reputation which persisted through the Second World War (Mitchell 147).

³⁴ The word "authentic" features prominently throughout the City of Vancouver's heritage conservation guidelines. The document describes authentic materials as "natural materials[,] such as wood, stone, and slate." By contrast, the list of "incompatible" materials and application of materials includes "aluminum, vinyl, or fibreglass windows," "concrete block as primary facing material," "plywood as a primary facing material," and "materials that are manufactured to imitate other materials" (3.7.5-3.7.6).

landscape heterogeneity in established neighbourhoods, citing characteristics such as “large lot sizes; generous setbacks; large private gardens; enclosed site boundaries with rock walls, fences and perimeter plantings; and the grand scale of principal residences and estate properties” (“First Shaughnessy” 1.3). In its guidelines, the City presents an agenda which prioritizes traditional house design and building methods because of the visual and material variety they bring to the streetscape, aiming to preserve “a cultural landscape of individually-designed homes built with superior materials and craftsmanship and conforming to traditional styles, linked by their large scale proportions, and demonstrating a variety of styles including British Arts and Crafts, Tudor Revival, Queen Anne Revival, Craftsman[,] and Colonial Revivals” (“First Shaughnessy” 1.3). In her poem “The Agreement Agreement,” Murakami translates the urban planning priorities expressed in the guidelines into a series of questions that highlight the moralistic tone of the City’s heritage conservation principles:

Are you compatible with the other homes on the street?

Do you bring desirable cultural improvements to the area?

See the patterns we set: can you follow them? Are you willing to
civilize your differences? Is your character meritorious?

Do you meet the minimum requirements? ... Are you willing
to align your roof with ours? Are you willing to match our windows?

Or entrances, or porches? Is your detailing *choice*? Are your materials
choice? (*Rebuild* 59, emphasis original)

The ironic inflection of these questions, which read as a one-sided interview, highlights the sententious tone of the City’s heritage conservation guidelines, and it is this architectural and social puritanism that Murakami challenges in *Project Rebuild*. Her questions underscore the

way the City's guidelines read not only as an architectural prescription but also as a list of the personal values and attributes those who wish to build in Vancouver's established neighbourhoods must possess. By using Google Translate to build linguistic variation into her "Vancouver Special" source poems and by making revision and alteration essential modes of the work, Murakami builds heterogeneity into the structure of the project and challenges the City's official position on non-traditional housing styles, *presupposing* a richness and variety of experience behind the plain exteriors of houses that are less ornate, less generously scaled, or less elaborately landscaped than their pre-1940 neighbours.

Murakami's efforts to assert the heterogeneity of the Specials matters when one considers the class implications in the kind of defensive stance the City of Vancouver has taken regarding new-build housing in established neighbourhoods. The defense of architectural heterogeneity by means of the city-mandated preservation of economic and social homogeneity—and the value-laden language used in that defense—seems to deny the possibility that non-traditional, newer-build housing—and particularly that which departs from the standard set by the "single-family home"—can offer to the neighbourhood a multiplicity that is itself valuable and desirable.

Project Rebuild fills its "neighbourhood" with houses that, while more or less uniform in appearance, contain the possibility for endless structural and aesthetic reconfiguration, and thus lend themselves to uses and forms of occupation quite different from those envisaged by the City of Vancouver's heritage conservation agenda. The language of the City's guidelines encodes the infrastructural inequity that, in Wasserman's words, "renders the built environment disproportionately hostile" to racialized and low-income residents, as well as to those whose

family compositions or domestic arrangements do not fit neatly into the single-family detached structure (117).³⁵

Race, Class, and the Idea of “Appropriateness” in Vancouver’s Built Environment

The correlation between race and class and the degree of hospitality extended to residents by the built environment is one that has been well documented in the context of land speculation, housing, and real estate in Vancouver since its incorporation in 1886³⁶ (see, for instance, Ley; Brown and Smith; Fedoruk; Leow; and Landau-Donnelly). David Ley observes the continuities between, on the one hand, “the restless competition and thirst for gain [of] the postcolonial society” of contemporary Vancouver and, on the other hand, the “rush for land [of] the youthful colonial society” of late-19th century Vancouver (*Housing Booms* 151).³⁷ These continuities point to a persistent lineage: Ley’s observation that “[p]roperty ownership was a priority for the culturally and demographically British settler society” of early Vancouver³⁸ is one which offers a temporally attenuated mirror image of what Joanne Leow calls Vancouver’s *current* climate of property obsession³⁹—an inheritance which foregrounds a tangled network of ideas and values related to ethnicity and belonging, occupation and dispossession, nostalgic conceptions of “home,” cultural legacy, and the preservation of neighbourhood “character.” Katharyne Mitchell writes that early Vancouver’s British settler society arrived carrying with it the “pastoral myths of the English countryside”—a composite of aesthetic, spatial, and social

³⁵ I am thinking here, for instance, of multigenerational households, which may be well served by the “dwelling possibilities” afforded by the Vancouver Special (Murakami, “Interview”).

³⁶ Ley, *Housing Booms* 150.

³⁷ Ley writes that “[l]and and its sale have always been a preoccupation, sometimes an obsession [in B.C.’s Lower Mainland]. At the end of the 1880s when Vancouver had a population of 3,000, commercial services included 16 real estate firms and 12 grocers. With a frantic boom in the late [sic] 1900s, the city had over 1000 real estate agents by 1912, one for every 100 members of the population” (*Housing Booms* 150).

³⁸ *Housing Booms* 150.

³⁹ Joanne Leow, “Renovating Vancouver” 141 (emphasis added).

values which Mitchell suggests are at the ideological root of the City of Vancouver's current heritage conservation agenda (150). Compellingly, these "pastoral myths" link aesthetic and structural symbols with feelings of "pride of place, security and well-being"—*and* with "a universal notion of the 'appropriateness' of this landscape" (Mitchell 150). The idea that an imported set of aesthetic and structural signifiers are *appropriate* to land rightfully belonging to the Musqueam, Squamish, and Tsleil-Waututh people illustrates, at its core, the degree of entitlement settlers to Vancouver felt over the land they occupied; further, it is indicative of the degree to which settlers were driven to fashion for themselves surroundings reminiscent of "home." Most interesting to me, however, are the ways *appropriateness* and its custody and protection have evolved over the more-than-century since Vancouver's settlement and incorporation, an evolution which I will take a moment to examine here, since the idea of the "appropriateness" of Vancouver's built environment foregrounds the complex colonial history of the city's settler society and positions styles and structures which fail to adhere to the established colonial norm as somehow uncanny: something to fear, resist, or scorn.

Mitchell writes that the "ability to distinguish between tastes—good and bad, beautiful and 'atrocious,' highbrow and lowbrow—aids the confirmation and marking of social identity," and that the "anguish[ed]" reaction to changes to streetscape and architectural design in the decades immediately before and after Expo '86 signaled "a *fear* that the symbols of the established and dominant Anglo-Canadian group were being eroded, and with them the chance of sustaining the rare rights and assets dependent upon a privileged position in social and geographical space" (151-2, emphasis added). The notion of "appropriateness," then, and its associate, "good taste," served to buttress the privilege of a predominantly British settler society, to bolster that demographic's feelings of the *naturalness* of their presence on foreign soil, to

make that space *familiar* in order to reinforce settlers' sense of security and welfare, and to mark all other residents and structures as *inappropriate* by default. In these ways, the notion of "appropriateness" has been instrumental to the naturalization process for Vancouver's British settler society and to that society's architectural expression over time.



Fig. 3. *Vancouver Specials*, photograph by Neal Maher, 2023.

An analysis of the reception to and replication of the Vancouver Special (see Fig. 3) adds nuance to a discussion of race and class in the context of Vancouver's built environment. The Vancouver Special itself was conceived by an embittered draftsman who, as a result of a disagreement with the architectural firm with which he was interning, had been prevented from achieving his ambition of becoming an architect (Donaldson, *Land* 144). In a kind of retaliatory move against what he saw as the elitist architectural profession which excluded him, he set out in the 1960s to design a simple, practical, inexpensively constructed house that, in his words, made no pretense of being "a monument for [any]one's big, stupid life" (Donaldson, *Land* 144). The draftsman's house design was built by the thousands, and by 1980 its spread had provoked a backlash from neighbourhood organizations, city council, and local media (Donaldson, "His

‘Revenge’” n.p.). The Specials were, however, an accessible housing option for working-class Vancouverites: their inexpensive construction made them a more economical choice than other detached housing options available, and their layout and square footage allowed for mortgage-helping secondary suites or multi-generational living arrangements (Berelowitz 197; Donaldson, “His ‘Revenge’” n.p.). For these reasons, the opposition to the Specials’ proliferation between 1965 and 1985 is inflected by class in a way that positions those debates on the continuum of the evolving notion of “appropriateness” in the context of Vancouver’s built environment.

During these decades of class-inflected debate about housing styles, further changes to Vancouver’s architectural landscape were precipitated, in 1978, by amendments to the *Immigration Act*. These amendments⁴⁰ introduced the category of Independent Immigrant, a change which itself led to the creation, in 1978, of the Business Immigration Program (BIP),⁴¹ under which there were two initial subcategories of immigrant, “entrepreneur” and “self-employed,” with a third, net-worth based, category for “investors” added in 1986 (Harrison 11-12). Harrison writes that between 1983 and 1992, “40% of all entrepreneurs and 48% of all investors ... came from Hong Kong” (17).⁴² These statistics matter to a discussion of the evolution of “appropriateness” in Vancouver’s built environment because, in addition to introducing to Vancouver’s population a new group of immigrants whose eligibility for entrance hinged on their wealth, the BIP also marked the introduction of a racial inflection both to arguments for the “appropriateness” of Vancouver’s aesthetic and structural symbols *and* to opposition to the Vancouver Special’s spread across Vancouver. Mixed with the backlash against

⁴⁰ These changes, introduced by the Trudeau government in 1976, received Royal Assent in 1977 and came into effect the following year (Harrison 11).

⁴¹ Ley and Tutchener write that “[o]ver the period of 1980 and 2012... some 200,000 people arrived in Vancouver through the BIP” (153).

⁴² Harrison writes that “[s]izable numbers of business immigrants also came from other Asian countries, notably Taiwan and South Korea” (17).

the spread of the Specials was resistance to other, related, types of non-traditional housing styles, such as that known as the “Monster House,” a controversial style strongly associated in both public perception and in design practices with the immigrants who arrived as a result of the BIP.⁴³

I outline this trajectory here because tracing “appropriateness,” and efforts to defend its conceptual contours since Vancouver’s settlement and incorporation, brings into sharp focus the dislocations and appropriations at work in *Project Rebuild* itself and Murakami’s work to unsettle the idea of ownership and emphasize collaboration and collective revision. In a kind of ironic inversion, during these decades Vancouver’s predominantly British settler society railed against modifications to the built environment it had itself imposed upon the landscape it had claimed by declaration⁴⁴ during the previous century and which had since become naturalized in the landscape.⁴⁵ In 1989, one Vancouver reporter noted the lineage of racially inflected dislocations and appropriations in the context of Vancouver’s housing market when observing the reaction among residents to real estate investment in Vancouver resulting from the BIP and the fear that housing precarity could result among existing residents. This reporter wrote that

there is fear in Vancouver that a secondary market for property is being developed—one market for high-paying outsiders and one for the locals with whatever’s left... When a

⁴³ The term Monster House describes a style which was built to the “maximum permitted by lot size” and often incorporated “traditional *feng shui* elements,” such as addresses ending in the lucky number eight, and “symbols of success [such as] classical columns, a massive double front door, a towering entrance hall and a spiral staircase” (Ley, *Millionaire Migrants* 182-3). These houses were considered by neighbourhood associations to be incompatible with the existing built environment and prompted heated public debate and a years-long process of revision to city planning and zoning bylaws (Ley, *Millionaire Migrants* 185).

⁴⁴ Unlike other parts of Canada, no treaties were signed during the expropriation of land from Coast Salish nations (the Musqueam, Squamish, and Tsleil-Waututh) on the BC mainland. See, for instance, Cole Harris, Jean Barman, Fred Fenwick, and “Musqueam Indian Band Statement.”

⁴⁵ In another interesting inversion, the Vancouver Specials themselves have started to become naturalized within their environment, and have begun, even, to be celebrated for their clean lines and now-iconic architecture. See, for instance, Kerry Gold’s “A Special Arrangement” and the Vancouver Heritage Foundation’s short documentary, *Restoring Community*, “Part Two: The Vancouver Special.”

[Vancouver] property can be bought, sold, leased, and even managed from offices in Hong Kong, it is bound to create a backlash... And many now are coming to the view [of] that sort of 'investment' in Vancouver as colonization. (J. Collins 3)

The use of the word "colonization" here focalizes the longer timeline along which these contested modifications are plotted. David Ley points to the irony of the "preservationist ideology" embraced by residents of the city's older neighbourhoods when confronted with changes to their built environment in the years of the BIP. Ley writes that,

[f]ollowing forest clearance, the neighbourhood [of Shaughnessy] was settled early in the twentieth century by resource barons and other business elites on part of the huge land grant awarded to the Canadian Pacific Railway for pushing its Pacific terminus west to the Vancouver townsite. Land deals had been integral to the city's business life since its founding and the residents of Shaughnessy as members of the elite had done their fair share of buying and selling. Dispossession was also part of that heritage, for the Shaughnessy land settled in the early twentieth century had been occupied [by Indigenous peoples] who had established a seniority of several thousand years. Now history was repeating itself as the dispossessors were being dispossessed and an existing place and identity was again being thrust aside. The irony was even deeper, for the elite who had cleared the primeval forest were now guardians of Shaughnessy's leafy canopy. (*Millionaire Migrants* 190)

Indeed, one of the most common arguments against the spread of the Specials and of "Monster Houses" was their impact on the green space around them, in particular that their large square-footage resulted in a reduction in garden size and the felling of mature trees (see, for instance, Donaldson, *Land* 145). Ley outlines these preservationist arguments, citing neighbourhood

residents' emotional appeals at public hearings and in local media. In 1990, for instance, one such resident wrote to the *Vancouver Sun* to lament the recent felling of two mature sequoias: "part of me has died with the trees," this resident wrote. "The two amputated stumps remain as mute grave markers to what has been destroyed" (qtd. in Ley, "Between" 202). In a letter to City Council in 1989, another resident wrote,

Soon after [the new immigrant owners from Asia] moved in, two 200-year-old Douglas firs were cut down. It felt to me like one of my children was dying. The English family who had originally built the house and had lived there for 50 years had asked me especially to protect those trees, the tallest in the whole neighbourhood. (qtd. in Ley, 1995, 200)

These appeals make no reference to the longer lineage to which they belong, but they are nonetheless a stark reminder of the previous century's forest clearance and what Cole Harris describes as "a new geometry of property lines and fences ... in a transformed landscape" imposed by European settlement (37).⁴⁶ These appeals also implicitly wield the notion of "appropriateness" to mark the new immigrant as "unnatural" (acting in contravention of accepted, established norms and priorities) while also continuing to justify the speaker's own position in the landscape by claiming the role of guardian over it, a role that ensures a moral rightness for those publicly lamenting the loss of biodiversity in the area while also, implicitly, railing against the increased racial diversity brought by immigration during this period. On this longer timeline, the notion of "appropriateness" works to maintain the position of the largely British settler population as the "natural" one, casting those who came before and those who

⁴⁶ Justin Paulson and Julie Tomiak note this longer timeline of property acquisition and development in British Columbia when they write that "[p]rivate property require[s] first the deterritorialization of those whose relations with the land do not revolve around its commodification" (158). The cause of "civic growth," they write, is held up as rationale and justification for the dispossession of Indigenous peoples during settlement (158).

came after as the unnatural others. These public laments do not refer to the earlier transformation to landscape plotted on the longer timeline of the Coast Salish territories: that produced by the largely British settler population's own establishment in the area, which itself resulted in various forms of incongruity represented visually in much photography from B.C.'s early settlement era (see, for instance, Fig. 4).



Fig. 4. Frederick Dally, *Harrison River*⁴⁷ *Indians*, 1867.⁴⁸

Like Ley, Harris, and others, Murakami, both in *Project Rebuild* and elsewhere, observes the irony of the public uproar this secondary displacement provoked. Her poem “Hole (Looking

⁴⁷ What is now called the Sts’ailes Nation is in BC’s southwest Lower Mainland.

⁴⁸ This image, reproduced in Harris’s book, is not digitized in the BC Archive collection; however, collection item F-08996, which is available for digital reference through the BC Archives, pictures the same two people in slightly different positions and was clearly taken at the same time. In that photograph, the fences in the background are obscured by damage to the photograph.

In),” for instance, invokes images of excavation and asks, “What was here before? / What was here before?” (*Rebuild* 32), lines whose repetition, on the one hand, speaks to the way dispossessions and modifications to the built environment are layered upon the space Vancouver occupies and, on the other hand, mirrors the “replication and persistence” of the Vancouver Special itself (*Project Rebuild*, “About”). Joanne Leow notes that “Murakami’s unrelenting ‘renovations’ of her own poems resist fixed capitalist and colonialist mappings of Vancouver” (Leow 147), and that this act of resistance serves to locate readers and residents on a longer timeline of displacements and dispossessions that have occurred in the space they now live. I extend this view to argue that the project not only locates readers in space and time but also engages them directly with the current and historical contexts circulating in the work—that by promoting readers’ active participation in the project’s creation and continued development, the project engages them sensorily, not just conceptually, with those contexts. Further, to use the symbol of the *house* to locate readers and residents on the longer timeline and engage them sensorily speaks to Sarah de Leeuw’s suggestion that to centre “homes and bodies ... is a crucial corrective to theoretical accounts of colonialism that focus solely on the level of lands and resources” (“Tender Grounds” n.p.). This argument recalls Tova Gerge’s work in her annex-poem to re-*place* the (female) subject at the centre which tries to eject her, and it supports Murakami’s subversion in *Project Rebuild* of a singular, central, sanctioned subjectivity. De Leeuw’s “visceral and embodied geographies” re-locate the earliest displaced subjects on the timeline which traces also the multiple recent⁴⁹ and historic dispossessions enacted in settler-colonial Vancouver, dispossessions which are occluded in the debates about city planning and zoning in the decades of the Business Immigration Program and before and after Expo ’86.

⁴⁹ My chapter on Madeleine Thien’s *Vancouver of the Mind* discusses another example of dispossessions on this same timeline: the gentrification and redevelopment of Vancouver’s Downtown Eastside neighbourhood.

There is some debate about the *nature* of the ideological foundations of the fervent preservationist spirit in Vancouver's historic neighbourhoods.⁵⁰ Ley, like Wong and Netting before him, suggests that rather than being rooted primarily in racism, the battle to preserve the "character" of established neighbourhoods in Vancouver "had more complex and intersecting motives and subjectivities" (*Millionaire Migrants* 195). Specifically, Ley suggests that the preservationist drive might have lain in "class antagonism" or "anglophilia, a much more specific, class-based, ethnicity [than] race" (*Millionaire Migrants* 194). Echoing Mitchell's "pastoral myths" and "pride of place," Ley notes, too, that "[u]nderlying preservation was a strong feeling of sentiment and symbolism, a synthesis of place and identity" (*Millionaire Migrants* 195). However, de Leeuw's use of Rob Nixon's concept of "slow violence"⁵¹ helps make "visible" the racist impulse behind both colonial settlement *and* the drive to heritage preservation in historically significant Vancouver neighbourhoods (n.p.). The concept of "slow violence," de Leeuw writes, helps us recognize and understand the "longer lineages" of the "ongoing disruption of Indigenous home-scapes and embodied geographies" and that apprehending these longer timelines interrupts the way that, with the distance of time, the points comprising these legacies become "invisible, especially to settler-colonists" ("Tender Grounds" n.p.). Plotting the points on the timeline, then, clarifies the racist underpinnings not only of the settler-colonial impulse but also of the custody and protection of the forms of "appropriateness"

⁵⁰ Shaughnessy and its adjacent neighbourhoods are not the only ones residents have rallied to preserve. David Ley notes that Vancouver's Chinatown-Strathcona has also been the subject of similar preservationist fervour, and when, in 1971, it was saved from demolition intended to make way for a freeway, it became "an inspiring test case for emergent neighbourhood anti-development movements" (*Millionaire Migrants* 165). Later that same decade, when urban planners turned their eye towards Shaughnessy, neighbourhood residents invoked that previous success: "If Chinatown could be preserved for its special cultural character, then so too could Shaughnessy" (*Millionaire Migrants* 168).

⁵¹ Nixon's "slow violence" is one which primarily addresses environmental degradation; however, de Leeuw makes a compelling case for its applicability to the context of "longer lineages of theorizations about the operationalization of violence, especially in colonial geographies" ("Tender Grounds" n.p.).

that become naturalized in consequence of that impulse. This timeline also underscores the way the import of British notions of aesthetic and structural “appropriateness” enabled the cross-Atlantic continuation of a lineage which, in Sara Ahmed’s formulation, applies whiteness “as a straightening device” that reproduces through “acts of alignment” (121). The perseverance of the notion that an imported set of structural and aesthetic signifiers applies naturally and appropriately on colonial shores indicates the sheer power of repeated (re)alignment in producing the perception of a traceable and coherent lineage.⁵²

Material, Waste, “Renewal”

Conceptualizing the longer lineage of Vancouver’s relationship to land and development necessitates also examining the *ecological* implications of the city’s various stages of building and rebuilding. While *Project Rebuild* works to assert for the Vancouver Specials a value and heterogeneity for which they are not normally recognized, and despite the way it applies ideas and language related to renovation and demolition, Murakami provides no simple endorsement of any particular building style. Indeed, both *Project Rebuild* and *Rebuild* present a critical view of construction and renovation practices in urban Canadian centres such as Vancouver, not only by highlighting the displacement and dispossession that result from the continual drive toward urban “renewal” but also by pointing to the environmental impact of practices associated with that impulse. In “How to Build a Vancouver Special,” Murakami observes Vancouver’s record

⁵² In *Against the Current and Into the Light*, Selena Couture provides a detailed and compelling analysis of the way Vancouver’s first (and decades-long-standing) city archivist, Major James Skitt Matthews, *produced* Vancouver’s “historical record” by way of repeated and speculative acts of realignment, ranging from retroactively invented speeches and commemoration ceremonies to false statements about the location of gravesites and the tweaking of facts to lend a coherence and logic to neighbourhood names. Couture details how these inaccurate, imagined, and/or wildly elaborated stories were, over time and through a process of iteration, baked into Vancouver’s historical record so as to become the established, archival “truth” about the city. Borrowing to no small degree from the credibility and authority of the institution of *the archive*, Matthews controlled and produced “an archive around which settlers and newcomers might find comfort” (Couture 90). Matthews’s archive was, in this way, “not neutral but directive” (Ahmed 118).

of demolishing older structures to make way for new ones, and the social and material implications of that record. She writes,

Clear chips of stucco, broken shards of home. Clear away debris of the long dead. Bin that shit. Heave history away. ... The tree was felled. The realtor set up the sign. The realtor removed the sign. The permit was approved. That happened right here, in a city that grows and then tears down. (*Rebuild* 60)

Unlike the City of Vancouver's conservation guidelines, which seek to preserve the "heritage character and heritage value" of historic neighbourhoods ("First Shaughnessy" 2.1), this passage takes an irreverent stance toward history and the idea of home; however, in an ironic gesture, it also turns its irreverence toward the sheer materiality of construction and renovation practices and the ecological weight those practices carry. In this passage, the heft of what is discarded is significant, but the sense is that once those materials are "heave[d]," "felled," and "clear[ed]" they become in some way *immaterial*, moved to a space that is elsewhere: "away" (*Rebuild* 60). Tim Edensor calls this process of renewal and disposal the "morbid cycle of repetition, novelty, and death," and has observed that this cycle, "through which the newly fashionable consigns the previously modish to obsolescence," creates the condition of "extreme temporal attenuation whereby ... the recent past becomes ancient history" and "unwanted matter no longer [need] be confronted" ("Waste" 315). In *Project Rebuild*, the reader-contributor becomes implicated in this cycle, demolishing serviceable structures in the process of taking up Murakami's invitation to "rebuild" according to their whims and "visions" (*Project Rebuild*, "About").

The "renewal" pictured in the above passage reflects the ethos of relentless progress and productivity that has been credited for Vancouver's culture of real estate speculation and development. Melanie O'Brian notes that Vancouver has "sought (and made) its fortune through

ventures that require a belief in risk and progress, such as timber, mining, fishing, gold, tourism, technology, and most characteristically, real estate and land development” (13).⁵³ Trevor Barnes et al. observe that such traits have produced a city characterized first and foremost by its mutations: “[m]ore than perhaps most other Canadian urban regions,” they write, “Vancouver exemplifies the city as a space of flows and recurrent restructuring rather than as a durable construct of stable industries, labour, social class, and communities” (291). Vancouver, like *Project Rebuild*, is a construct “that grows and then tears down” (*Rebuild* 60). Like *Project Rebuild*, Vancouver is a work-in-progress, what Paul Stephens calls “haphazard, [and] built from the materials of its own past” (21). And, like *Project Rebuild*, Vancouver comprises, in Lisa Robertson’s words, “the material detritus of previous inhabitations and economies” (177). The shifting and contingent “arrangements”⁵⁴ that make up *Project Rebuild* work in tandem with Vancouver’s own constellation of changing structures and spaces, and in taking up Murakami’s invitation to “come on in” (*Project Rebuild*, “About”), participants are drawn into the social, spatial, and structural mutability of Vancouver itself—a mutability which has continuously translated into material and spatial precarity for the city’s racialized and underprivileged residents.

Despite the sheer materiality of Vancouver’s cycle of demolition and rebuilding, and despite the state of precarity which that cycle inflicts on many of the city’s residents, “How to Build a Vancouver Special” observes this cycle as containing, also, the possibility of a form of renewal defined and enacted by residents themselves, rather than imposed upon them by forces emanating from municipal governments or real estate markets. Murakami writes that, in Vancouver, the land is “cleared where it ha[s] been / cleared before. The neighbours brace

⁵³ Lance Berelowitz goes further: real estate, he writes, is Vancouver’s “blood sport” (95).

⁵⁴ This is Levine’s formulation.

themselves for the saw, the hammer. History / and city hall take their toll. Now we may begin. Now that there's this hole" (*Rebuild* 60). In this concluding passage there is a tension that recalls what Wasserman terms the "duality of persistence and disappearance" (115). This passage enacts a meeting between, on the one hand, administrative and market forces, and, on the other hand, the tenacity and creative will of communities. Without romanticizing the violence of demolition and displacement, this passage reconceptualizes these processes as *leaving space for* the collaborative, community-level revision of the cityscape. *Project Rebuild* steps into this space, claiming it for residents and interrupting the cyclicity of urban renewal driven by market capitalism.

The reader's first cue to this interruption lies in the project's visual structure. The poem-houses in *Project Rebuild*'s main page neighbourhood are evenly spaced in a grid-like formation and are drawn in the style of manually produced architectural renderings: clean black lines on a white background, with some shaded areas and the occasional outline of a shrub or tuft of grass to suggest depth on an otherwise two-dimensional plane. The grid-like readability of the city streetscape the project figures—and the initial impression of fixity in the site itself—is undermined, however, by the fluid and shifting structure of the project. The work is laid out on the screen in a way that continually underscores the collaborative mutability and geographic locatedness of the work. It offers readers a *way in* to the neighbourhood and to the conversation, and it locates them in the spatial specificity of residential Vancouver itself, where they find themselves surrounded by the kind of architectural landscape one could expect to see in almost any neighbourhood in that city. Despite its firm locatedness, however, *Project Rebuild* is not a map: its elements, though arranged on the screen in an apparently static formation, are, in fact, in flux, both because the order of the poem-houses changes each time one opens the site and

because each contributed renovation fundamentally alters its antecedent. The dynamism and mutability operating in Murakami's project is one expressed in many of its contributed renovations, including those I have already discussed above. I would, however, like to conclude by examining one more poem-house located in Murakami's neighbourhood. Fred Wah's contribution to the project evokes images of seepage: a multidirectional fluidity and the porousness of the concrete. Wah writes,

Not failed attempts at structure wood

all leaky, roof this morning

in specific rain. How it sits

my family into the chimney flashing

seeps

through the roof joists

and drips on the land

...

the hillside trees

leak also

the rain

down to their roots. ("Retrofit from Hamill's Last," *Project Rebuild*)

In Wah's revision, as in *Project Rebuild* itself, the "structure" is penetrable, but *not* a "failure"; rather, it is a formation whose penetrability is the very characteristic that allows it to better represent and contend with its contextual complexities—social, economic, cultural, ecological. In *Project Rebuild*, there is no impenetrable barrier to prevent acknowledgment of the inequities and injustices embedded in Vancouver's spaces and structures. Real estate, a keenly visible cue

to the economic disparity so prevalent in Vancouver, is in Murakami's project figured as shifting, changeable, and susceptible to alteration *not only* by developers and city officials *but also* by anyone who cares enough about neighbourhoods and communities to take action toward improving them. In conceiving of *Project Rebuild* as a dynamic ecology of co-constituted relationships and temporalities, one enables a nuanced view of the place itself: *not* all fixed structures, surfaces, and intersections, but a shifting complex whose parts can be redeployed in service of its residents.

Rachel Armstrong writes that “[c]hange does not happen through the action of individuals alone but through building a community of ideas and neighbours that help render a shared vision of functionality” (62). I have in this chapter attempted to sketch the “community of ideas and neighbours” at work in *Project Rebuild* by laying the project out flat, as one would with a map,⁵⁵ and tracing the patterns of its workings and composition. I have wanted to foreground the project's materiality: its rootedness in the contextual specificity of Vancouver's spaces and structures, and the ways those anchors are imbricated with Vancouver's record of colonial and class-inflected displacement and dispossession. Most of all, however, I have aimed in this chapter to articulate the work *Project Rebuild* does to make space for innovation, reconceptualization, and contingency in both poetry and cities, and, by extension, to foster in its audience a “commitment to mobilize” (“Violence, Law,” Hunt 2). Sarah Wasserman writes that “[l]etting go of things and doing away with the fantasy of durability means rejecting damaging

⁵⁵ I am borrowing a formulation here from Latour's Actor Network Theory (ANT), which itself “borrow[s] a metaphor from cartography ... to render the social world as *flat* as possible in order to ensure that [each] link is clearly visible” (Latour, *Reassembling* 16, emphasis original). ANT “travel[s] slowly” across the social world in order to apprehend “new unexpected actors” that may not yet be considered “members of ‘society,’” and rather than imposing order on that assembly, ANT lets “the actors deploy the full range of controversies in which they are immersed” (22-3). In this way, laying the project out flat does not mean seeing it as two dimensional; rather, it means combing through and attending to its parts in order to better apprehend the patterns and interconnections emerging from them.

nostalgia and accepting constant change; it also means recognizing that even temporary formations can carry within them the possibility of real action” (37). By way of an interactive multimodality, *Project Rebuild* draws its reader-participants into a productive contingency that rejects established patterns and fixed structures and makes space for forms of living that promote more equitable social, material, and economic relations in urban Canada.

Chapter II

Gaps, Absences, and Irreducible Materiality in Aaron Tucker and Jordan Scott's *Loss Sets*

I love originality so much that I keep copying it.

– Charles Bernstein, “The Truth in Versions”

Additivism can emancipate us. Additivism will eradicate us.

– Morehshin Allahyari and Daniel Rourke, “The 3D Additivist Manifesto”

In his 2019 chapter “Beyond ‘Whiz-Bang’: 3D Printing and Critical Making in the Humanities,” Aaron Tucker argues that 3D printing is a “mode to explore/align/resist visual metaphors—but with the unique understanding that such an object is analogue and physical first”; because of this primary physicality, he continues, the 3D printed object is “a deeply evocative and sensual mode for exploring humanities scholarship, at once tangible and immediate, while also virtual and able to be distributed through various research networks” (115). Expressed in these lines is a tension between materiality and immateriality, between presence and absence, that is also a central concern in Tucker’s collaborative project *Loss Sets* (2016), a project about which Tucker observes that

[b]y inter-semiotically translating the ‘data’ (poem) into another interface, *Loss Sets* asks its audience to consider the tactile experience of a poem, the potential three-dimensional scale of a poem, and how a poem melds with, influences, and is influenced by the technologies around it, pushing the poem beyond its semantic value. (119-20)

It is the intersections between language, materiality, and technology which *Loss Sets* enacts that I wish to map out in this chapter.

In some ways, the focus of this chapter is an anomaly amongst the works my project examines. In *Loss Sets*, instead of representing their subject in text and image, as do Wah, Thien, and Murakami in their respective projects, collaborators Aaron Tucker, Jordan Scott, Namir

Ahmed, and Tiffany Cheung render it in a concretely material, three-dimensional form by way of a non-linguistic “translation” process involving geospatial coordinates and 3D printing. In this project, Tucker et al. translate⁵⁶ a series of poems co-written by Tucker and Scott into sculptures in collaboration with programmer-technicians at Toronto Metropolitan University’s Digital Media Experience Lab, Geospatial Maps and Data Centre, and Centre for Digital Humanities. The result of each poem’s processing is a 3-D printed object that bears no visible traces of its linguistic antecedent but which is that poem’s spatial-numerical offspring (see Figures 5 and 6).⁵⁷

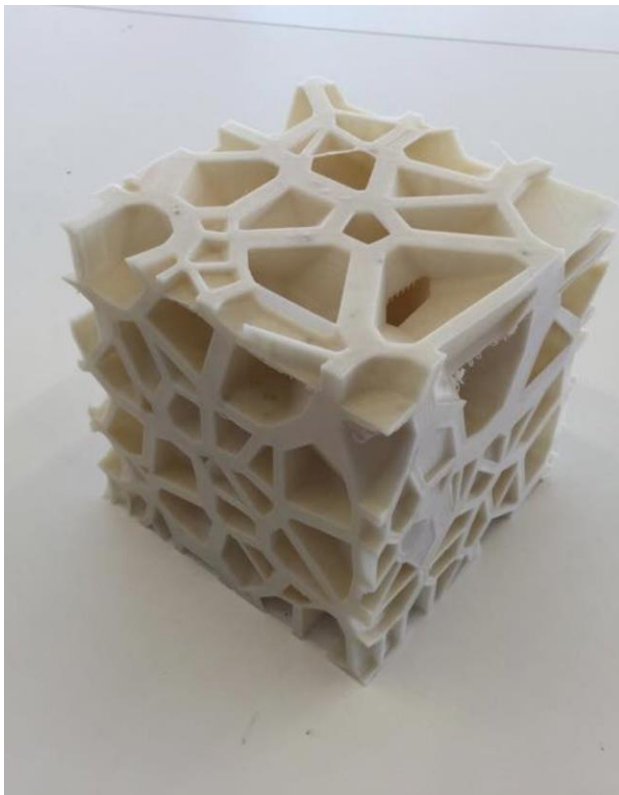


Fig. 5. “Loss Set 2.” Screenshot (detail) from “At the You/I Exhibit at Winona State University, 2016.”

⁵⁶ For another example of a collaborative endeavour to “translate” poetry into 3D printed sculptures, see Andrei Budescu, et al.

⁵⁷ These object-poems vary in size from approximately 3cm³ to approximately 12cm³. The printed objects are white, green, or blue, depending on the filament used in printing.



Fig. 6. Screenshot from “At the You/I Exhibit at Winona State University, 2016.”

While published descriptions of this technical process are relatively few, and while the publicly available descriptions that do exist are typically expressed in non-technical—and therefore non-specific—terms, it is clear that the “translation” enacted by *Loss Sets* occurred over several steps and was guided by the periodic introduction of new geospatial and numerical data.⁵⁸ In one of the few formally published descriptions of this process—a paragraph-long account, or “Project Snapshot,” as it is called in Jentery Sayers’ *Making Things and Drawing Boundaries: Experiments in the Digital Humanities* (2017)—the four collaborators describe the actions taken at each stage of their creative process in a way that leaves in question the specific nature of each of those stages. The collaborators write that, first, the poems were “turned into

⁵⁸ On Tucker’s web site, there is a deeply buried explanation of the process, in which he says, “we started fairly simpl[y]: we created a set of rules in which 32 characters (26 letters, 6 punctuation marks) mapped to 32 numbers (a=1, b=2) across the x, y and z ax[is]es. From there, each word was cut up into units of 3 and those three characters were then mapped to their corresponding coordinates on their respective axes [sic]. For example the word ‘the’ translates into ‘t’ =20 on the x axis, ‘h’ = 8 on the y axis and ‘e’ = 5 on the z axis; these three coordinates are then combined to make a point in 3D space.”

coordinates along the X, Y, and Z axes,” after which those points were “imported into the 3D modelling software” and “models [were] rendered” (Tucker et al. qtd. in Sayers, “Making” 205). Then, Tucker et al. continue, the resulting models were “further manipulated using information such as latitude, longitude, and spot height from the Columbia Icefields” (Tucker et al. qtd. in Sayers, “Making” 205). Next, the sculpture was “carved away” according to the data sets accumulated in the preceding steps, and, finally, those results were 3D printed, using (a footnote tells us) PLA and ABS plastic filament (Tucker et al. qtd. in Sayers, “Making” 205). Elsewhere, Tucker provides a slightly more specific description of what some of the early steps of the process entailed. In “Addressing Machine Co-authorship,” for instance, he writes that once the poems were written, his next step was to

break down [the] poems, with a Python script, into units of three characters and map each character to ... a simple algorithm where the letter a=1, b=2, etc. Once converted, the three characters form a point in 3D space (an x, y, z coordinate). ... These points in space are then collected and combined with geospatial data (latitude, longitude, and spot height) from the decades of ice erosion that have taken place at the Columbia Icefields in Alberta. (4-5)

While this description provides a greater degree of detail about the technical and translative sub-steps of the process than other project descriptions or artist statements that exist about *Loss Sets*, it, too, relies on vague descriptors that are far from illuminating. Here, Tucker’s “collected and combined with,” echoes the Project Snapshot’s descriptors of “turned into,” “rendered,” and “manipulated.” None of these verbs offers a clear view of the concrete steps taken during the creation of the work, and after reading these formally published accounts of the project’s process

of development, I am left wondering what exactly Tucker and his collaborators mean by these descriptors, and why they do not use more precise language to describe their process.

Working in tandem with the way this and other descriptions of the project resist comprehension is the almost complete absence from the public record of the seed poems from which *Loss Sets* developed. Unlike the traceable past and ongoing evolutions of *Project Rebuild*, for instance, Tucker and Scott's co-written seed poems—with only one exception that I have found⁵⁹—have not been published, either online or in print form, nor has any comprehensive, orderly representation of the data sets or models produced at each step of the *Loss Sets* “translation” process. Besides the one published seed poem and the final 3D printed sculptures themselves, then, the only tools readers have for approaching *Loss Sets* critically are a small number of brief published descriptions of the project⁶⁰ and a few short statements produced by Tucker and his collaborators of what, in broad strokes, the project's creative process entailed. Perhaps the most compelling and descriptive of these “artist statements” occurs in Tucker's 2017 contribution to poet rob mclennan's blog series “My (Small Press) Writing Day,” a series which asks writers to describe their workspaces, writing schedules, and creative processes. In his contributed post, Tucker describes his writing generally—and the *Loss Sets* seed poems specifically—as “raw material that is then enacted through a process of bricolage and recombination” (n.p.). In this way, Tucker continues, *Loss Sets* is “in line with an OULIPO-driven production, [that is,] writing set around constraint that is part algorithm and mechanized, with the process of rearrangement of words and phrases outsourced, but with the interpretive and conceptual aspects ... still rooted in my ‘human’ brain” (n.p.). In this process, words are raw

⁵⁹ Fifteen copies of seed poem “Loss Sets 2: Spiral Expansion of Muscles in Movement” were printed in broadside form by Anstruther Press (Aaron Tucker and Jordan Scott).

⁶⁰ See, for instance, descriptions of the project in Tucker's “Beyond ‘Whiz-Bang’: 3D Printing and Critical Making in the Humanities” (2019) and “Machine Co-authorship via Translative Creative Writing” (2019).

material translated, by industrial, algorithmic, or otherwise mechanical means, into *something else*, and in *Loss Sets* into something altogether non-linguistic. By making their primary textual material largely inaccessible, offering only vague descriptions of the stages of project development, and conducting a translation of text which makes it unreadable in any conventional sense, Tucker and his collaborators appear to be orchestrating for audiences a deliberate disorientation; indeed, they seem to be defamiliarizing the experience of writing and reading poetry, and, through a creative process that undermines conventional meaning making, they enact the “loss” of which their project intends to speak. In the context of the gaps, absences, and defamiliarization that characterize *Loss Sets*, then, how do we as readers proceed?

In addition to its focus on a collaborative, multimedia process with both digital and analog components or stages of development, it is its tenor of disorientation and its aporias that connect *Loss Sets* to the other works my own project considers. In light of these convergences, my analysis in this chapter is mobilized by the following questions: How do we approach a work of art or literature when the primary texts of which it is composed are absent? How are we to interpret a project whose *process* is evidently the thing intended to be apprehended when that process remains largely unknowable? And, how do we read a work of art or literature whose stated objective is to “respond to”⁶¹ ecological (and other forms of) loss when it does so by way of material practices and processes whose sustainability is itself contested? In this chapter I suggest that in *Loss Sets*—and in the almost complete absence of a textual body—the reader must read the gaps and omissions comprising the project. I argue that, formed almost entirely of absences, *Loss Sets* performs a pre-emptive nostalgia and acts as a metaphor which imagines humanity’s relationship with wild places and organic forms once those things are gone. “Pre-

⁶¹ Tucker, “Addressing Machine Co-authorship” 5.

emptive nostalgia,” I suggest, differs from Svetlana Boym’s concept of “prospective nostalgia.” The former casts forward to render sensory in the present a future loss not yet widely tangible, or even imaginable; the latter refers to a more conceptual experience of a future event: one imagined or anticipated, but not (yet) felt or experienced. Boym writes that prospective nostalgia is “connected with an orientation toward the future and the foreign horizon” (*The Off-Modern* 39). My suggestion, here, is that Tucker et al. move past the merely conceptual, not just *illustrating* or *describing* a possible or likely future loss but engaging the reader in a version of the sensory experience of that future loss. There is in *Loss Sets* a nostalgia for what Tucker calls “pure language,”⁶² for nature, and for a time when we could have acted collectively to prevent environmental devastation but did not do so. By occluding the project’s primary textual material, Tucker et al. enact the loss of which they speak, forcing readers to confront the absence of conventionally readable material and the corresponding degradation of natural spaces and systems. This chapter further suggests, then, that Tucker and his collaborators’ use of 3D printing places an ironic inflection on the project’s treatment of loss: if, as I suggest, *Loss Sets* evokes a preemptive nostalgia for what we have not yet lost, then using advanced technology to “process” language into an unreadable form and using non-renewable or non-degradable materials and resource-hungry processes to “respond” to ecological degradation means the project participates in reproducing the very forms of decline it claims to document. The processing of poems in this project also, however, mirrors the rendering of fossil fuels or organic matter into the plastic filament used for 3D printing. Both the poems and the raw materials are turned into something that cannot be *broken down*, cannot be made orderly or comprehensible by conventional means, such as interpretive reading practices or biological degradation. By way of

⁶² See <https://scalar.usc.edu/works/documenting2017-1/loss-sets>.

an analysis of the gaps and fissures in *Loss Sets*' form, process of development, and stated theoretical underpinnings, then, this chapter will examine the relationships between the project's material and ideological processes and raise questions about the ethical and ecological responsibilities of artists and creators in the Anthropocenic era.

To approach *Loss Sets* thus, I will first outline the current conversation around 3D printing and sustainability, drawing from the work of scholars in the fields of the digital humanities and industrial ecology. I begin my analysis in this chapter with a discussion of 3D printing because that process is fundamental to *Loss Sets*, and the translative influence of that process over the project must necessarily inform from the outset my discussion here. Second, I will examine how the concept of "loss" organizes the project, how that concept shapes the work's performance and enactment of nostalgia, and how the project's relinquishment of form and readability imposes unconventional, embodied reading practices upon its audience. This section will consider the project's treatment of loss in the one seed poem that has been published and the available descriptions of and statements about the project, and it will tie these analyses to data about the recession of the Columbia Icefield⁶³ and associated losses to biodiversity.⁶⁴ Finally, I will briefly return to the idea of 3D printing in order to demonstrate how its application in *Loss Sets* raises urgent ethical and material questions related to artistic practice in the Anthropocene.

⁶³ Located in and around Banff and Jasper National Parks, the Columbia Icefield is known as "a hydrological apex," feeding the Columbia River, the North Saskatchewan River, and the Athabasca River, which themselves flow into the Pacific, Atlantic, and Arctic Oceans, respectively. Parks Canada states that "these [three] rivers provide fresh drinking water for millions of people, and are crucial to agriculture and countless ecosystems" ("Icefields Parkway"). Between 1985 and 2018, the Columbia Icefield lost 42.56km² in coverage area, or approximately 18% of its previous coverage (Intsiful and Ambinakudige 26).

⁶⁴ See, for instance, Christopher Shank and Amy Nixon, whose study on the effects of climate change on biodiversity in the area in and around the Columbia Icefield demonstrates the high vulnerability of many species, including amphibians (for example, various species of toad and frog), birds (grouse, blackbirds, owls), mammals (caribou, mountain goats, marmots), reptiles (especially snakes and turtles), and plants (yucca, verbena, pine, spruce, cress).

3D Printing and Plastics: Context and Criticism

While much of the research on the environmental impact of 3D printing exists in the context of the manufacturing industry rather than in the context of the arts or humanities, the increased presence of 3D printers in public libraries, university libraries, and community makerspaces across Canada has resulted in widespread access to the technology and a more generalized awareness and uptake of its applications. The prevalence of the technology outside of industrial settings also means that its environmental impact needs to be considered more widely and recognized as a by-product of the “creativity and innovation”⁶⁵ that libraries and makerspaces point to as affordances of this technology. 3D printing, also known as additive manufacturing (AM) and fused deposition modelling (FDM), is often touted as a utopian fix to the problem of the environmental damage associated with the manufacturing industry. Specifically, the process is credited with the potential to localize production and thereby reduce emissions related to the transportation of goods; it is credited with enabling a “zero-waste” approach to manufacturing, since it entails adding layers of materials rather than carving away from a larger block, which necessarily generates scrap or waste; and it is credited with enabling the increased availability of replacement parts, since components needed in repair processes could be produced on-site rather than imported (see, for instance, Lifset S6; van Wijk and van Wijk 58; Kreiger and Pearce 1512). However, recent research into the potential of AM to overhaul environmentally damaging manufacturing processes shows that any such potential is contingent upon dramatic changes to human behaviour in interactions with the technology and its products—a contingency which, from the vantage of our current geologic era, bodes ill for the revolutionary environmental potential of 3D printing. Industrial ecologist Reid Lifset writes that

⁶⁵ The University of Ottawa’s Richard L’Abbé Makerspace is one example of an institutional makerspace that uses this language (“uOttawa Richard L’Abbé”).

[a]n important implication of the complexity of assessing the environmental implications of 3D printing is that its adoption ... will not automatically generate net environmental benefits. ... Careful, systematic, and quantitative analysis ... is needed if the enthusiasm for the disruptive potential for the technology is to be balanced against ... the recyclability of specialized polymers ... or the possibility of dramatic increases in throw-away products facilitated by endless customization. (Imagine being able to produce shoes, costume jewelry, or household goods in varied colors or ornamentation on demand. This could bring fast fashion to a whole new level.) ... [Needed, therefore, are] more environmental analyses of the production of materials used in 3D printing and related upstream impacts, [including some related to] how 3D products are used and on the wastes they generate. (“3D Printing and Industrial Ecology” S6)

With media labs and makerspaces proliferating,⁶⁶ and many Canadian universities offering students access to 3D printers, either inexpensively or entirely free of charge and after only a brief introductory training session,⁶⁷ Lifset’s concerns need to be addressed in relation to community and institutional 3D printing facilities, not just to those servicing industries.

Additionally, Lifset’s language around customization and access strongly echoes the messaging from makerspaces and media labs, and projects an ethos of collaborative, grassroots, open access work spaces for “making, learning, exploring, and sharing.”⁶⁸ The University of Ottawa’s

⁶⁶ See, for instance, “Beyond Whiz Bang,” where Tucker notes that “the last decade has seen the cost of 3D printers and their materials drop to the point where they have become common objects on college and university campuses (111).

⁶⁷ At Toronto Metropolitan University’s Digital Media Experience Lab, for instance, where Tucker et al. produced the *Loss Sets* sculptures, users can book the 3D printers after watching two short certification videos, taking a 5-minute online quiz, and passing a 30-minute in-person test. The university library covers all associated costs, including materials, and users can print “anything [they] like,” with only a few unsurprising exceptions (<https://library.torontomu.ca/dmelab/home/3dprinting/>). The Toronto Public Library, meanwhile, reassures prospective 3-D printing lab users that the training module quizzes are “just for fun!” (“Introduction to 3D Printing”).

⁶⁸ This description comes from the list of Canadian makerspaces found on makerparts.ca.

Richard L'Abbé Makerspace (RLM), for instance, projects an ideal of cooperative innovation when it invites “everyone to collaborate and build their dream projects.”⁶⁹ However, in the same language is also reflected the suggestion of unfettered pursuit of one's individual creative or utilitarian impulse⁷⁰—messaging that signals the “endless customization” which Lifset flags (S6).

Rachel Armstrong expresses similar concerns regarding access and customization, and argues for a greater attention to 3D printing's relationship with climate change and the particulate plastics accumulating in oceans. She questions the “human centred benefits”—the “personal freedom [and] customizable processes”—that 3D printing appears to afford, and calls for “a much deeper analysis of the materials used, the energy and resource requirements, and the supply chains that result in printed objects” (“3D Printing” 14-15). She also points to the need for analysis of the downstream effects of these processes (15). The customization which 3D printing affords is appealing to those who make use of it in both industrial and non-industrial settings, but the process's potential environmental benefits are contingent upon changes to human interactions with the technology and its products: on the will and capacity, for instance, to build and operate industrial-scale composting facilities for “biodegradable” plastics, which do not break down in domestic compost systems,⁷¹ or to establish commercial-grade solar generators to power 3D printers and thus reduce the environmental impact of their electricity use.⁷² In light of the required behavioural and infrastructural changes upon which 3D printing's

⁶⁹ “uOttawa Richard L'Abbé Makerspace.”

⁷⁰ Some makerspaces and university labs, such as Toronto Metropolitan University's, for instance, disallow users from printing phone cases. The Toronto Public Library, on the other hand, enthusiastically invites users to print “toys, jewelry, phone cases, parts for broken equipment, and much more!” (“Introduction to 3D Printing”).

⁷¹ See Godofredo Solano et al.

⁷² See Megan Kreiger and Joshua Pearce.

environmental benefits hinge, notions that the process is zero-waste are misguided and premature.

The proliferation of 3D printing facilities in academic and community settings is met with a fervent enthusiasm for labs as “dynamic assemblage[s] that bind... together space, apparatus, infrastructure, people, and various kind of imaginaries” (Wershler et al. 213). Allahyari and Rourke point to 3D printing’s revolutionary potential when they write that “[j]ust as the printing press, radio, photocopier and modem were saturated with unintended affects, so we seek to express the potential encoded into every one of the 3D printer’s gears” (“The 3D Additivist Manifesto” n.p.). In the few descriptions of *Loss Sets*’ process of development, too, Tucker and his collaborators’ enthusiasm for the novelty of 3D printing occasionally leaks through their normally understated and minimally descriptive prose.⁷³ But this enthusiastic uptake means also that concerns associated with 3D printing processes and (by)products must be considered also in non-industrial contexts. An Internet search reveals that both hobbyists⁷⁴ and professional artists have embraced 3D printing, and that businesses supplying the printers and materials required for the process abound. In Canada, well-known artists such as Douglas Coupland, in conjunction with the Simons department store chain, and Edward Burtynsky, in collaboration with the Image Centre at Toronto Metropolitan University, have adopted fused deposition modelling processes in the course of their work.⁷⁵ Coupland, when asked why he chose to 3D print busts of Canadians for his project *3DCanada*, replied, “Because we can!”⁷⁶—a concise artist’s statement of sorts that nonetheless speaks volumes about the endless

⁷³ For example, in one instance of rare punctuational incontinence, they exclaim over one poem having been printed “on glow in the dark filament!” (aaron.tucker.ca/3-d-poems/).

⁷⁴ Etsy, for instance, hosts innumerable makers of 3D printed objects.

⁷⁵ “With 3D Printing.”

⁷⁶ I believe that the plural first person here refers to Coupland and Simons founder Peter Simons. See <https://www.simons.ca/imc/blog/spotlight/the-national-portrait-and-a-new-age-for-art/>.

customization and unfettered artistic impulse about which Lifset and Armstrong⁷⁷ warn, and one which acknowledges neither the environmental impact of the processes by which the artwork was made⁷⁸ nor the life cycle of the resulting printed objects. Digital humanities scholar Jeremy Boggs and coauthors write that the aim of experimentation in makerspaces “is not tinkering for tinkering’s sake,” but rather exploring “the affordances of play and experimentation with things as ways to provoke new questions” (324). They argue that “[a] hermeneutics of screwing around’ can be revealing, but ... accountability require[s] deliberate attention to that hermeneutics, its biases, and how making *shapes* our thinking” (324, emphasis original). Burtynsky describes the impetus to take up 3D printing differently; for him, the technology raises a series of compelling questions that query how making shapes thinking: he asks, “How do we begin to frame ideas about the original, the replica and how they relate to our understanding of authenticity?” (“That’s Photography” 18). Tucker, too, queries the idea of the replica when he asks, “What do the specific properties of replication, visualization and tactility add to the metaphor and the argument being made [in a creative project]?” (“Replication” 1).

I will return to these questions shortly and consider the implications of 3D printing processes for *Loss Sets*’ treatment of erasure, replication, and loss. First, however, I want to consider the specific materials and (by)products associated with the “making” and “exploring” done in institutional and community 3D printing labs and to address claims frequently made about the use of bioplastics in 3D printing processes. Libraries and makerspaces often pronounce their exclusive or primary⁷⁹ use of polylactic acid (PLA) plastic filament in 3D printing done in

⁷⁷ Armstrong predicts in 2014 that “as the unit cost of printers falls... hobbyists [will] make legions of white elephants out of toxic plastics [until] our landfills are chock-a-block with yesterday’s badly made fashionable shapes” (“3D Printing” 15).

⁷⁸ Coupland has noted that the printing process “took ages” and that the project’s larger forms were “sloooowwwwww to [print]” (“The National Portrait”).

⁷⁹ UOttawa’s RLM does not publicize the types of filament used in its lab; however, in an emailed response to my inquiry, its manager reported the following: “We primarily use PLA but we have other materials that we call

their facilities. The Toronto Public Library, for instance, notes that it “only uses[s] PLA because it] is a biodegradable type of plastic that is manufactured using plant-based resources such as corn starch or sugar cane” and because it “produces low emissions and has been deemed safe to use indoors” (“Introduction to 3D Printing” 9-10). In an interesting parallel, the conception of PLA plastic filament as a “green” alternative to petroleum-based plastics such as acrylonitrile butadiene styrene (ABS) or polyethylene terephthalate (PET) mirrors the conception of 3D printing as a localized, reduced-emissions alternative to conventional manufacturing. And like the contingent nature of 3D printing’s capacity to overhaul the manufacturing industry, PLA’s capacity to reduce the environmental implications of plastic use is contingent upon humans’ willingness and ability to build and use the infrastructures necessary for the proper disposal of the material after it has been discarded. In the absence of specialized industrial-scale compost facilities and their widespread, well-informed use, PLA plastic does not degrade as advertised.⁸⁰ Recently, chemist Godofredo Solano and coauthors have observed that outside very specific composting conditions, PLA plastic fails to break down even long after the indicated decomposition timeline, that it instead “behave[s] as polyethylene,” and, thus, that PLA plastics should be “assigned as noncompostable [rather than being] considered innocuous to the environment” (7). Solano et al. argue, furthermore, that the type of labeling PLA plastics currently carry “can lead to some confusion and expectations in consumers, who [may dispose] of untreated materials directly to the terrestrial and marine environments” (7). The Toronto Public Library’s eco-conscious rationale for using only PLA plastic filament in its 3D printers therefore represents an incomplete account of PLA’s lifecycle and seems likely to promote uses

specialty materials (ABS, PC, woodfill, etc) that we can use as well” (Justine Boudreau). Woodfill is comprised of approximately 70% polymer (typically PLA) and 30% wood fibre.

⁸⁰ See, for instance, Ghomi et al.

and forms of disposal that are incompatible with the conditions and processes that in fact facilitate the material's decomposition.

Like Solano et al., Imogen Napper and Richard Thompson also demonstrate in their analysis of PLA plastic that while it is marketed as a “plant-based alternative to [petroleum-derived] plastic, [it is] not clear that the oxo-biodegradable or biodegradable⁸¹ formulations provide sufficiently advanced rates of deterioration to be advantageous in the context of reducing [environmental contaminants]” (4775-6). Napper and Thompson argue that “the relevant receiving environment in which breakdown is expected to occur” also needs to be unambiguously clear to users, and that inaccurate or incomplete labeling of plastics marketed as “biodegradable,” and thus environmentally “friendly,” such as the PLA plastic used by the Toronto Public Library's 3D printing lab, “could make users more relaxed about discarding, or even littering them, rather than reusing and recycling” (4781). Napper and Thompson's cautions are consistent with Lifset's concern that the positive environmental outcomes imagined for AM/DFM processes are contingent upon human users' behaviour in interactions with those processes and the products that result from them. In other words, 3D printing, like PLA plastic, is “zero waste” only under very specific conditions—conditions which are dangerously dependent upon human will and capacity, and which are therefore difficult, “if not impossible,” to establish (Napper and Thompson 4781).

Matthew Harkness goes further in his critique of plastics marketed as biodegradable: he suggests that notions that PLA plastics are environmentally innocuous promote individualism and complacency among those who use 3D printing labs and maker spaces (iii-iv). Harkness

⁸¹ Oxo-degradable plastics break down into small fragments (microplastics) which remain in the environment indefinitely. Biodegradable plastic, on the other hand, is intended to “degrade by oxidation until its molecular weight is low enough to be accessible to bacteria and fungi, who then recycle it back into nature” (Michael Stephen n.p.).

argues that the maker (i.e., non-industrial) practice of 3D printing needs to be “reframed as a material-semiotic constellation... of humans and more-than-human actants that are in constant flux” (iii-iv). Perhaps, then, the collaborative spirit so often touted as a driving force for 3D printing labs and makerspaces needs to be reconceptualized to extend our understanding of the technology’s network of influence beyond the human agents who are encouraged to play, explore, and otherwise follow their creative or utilitarian impulses in taking up the affordances of 3D printing. Such a reconceptualization could work to promote more responsible use of 3D printers and the materials and resources that fuel them. In such a reframing, “collaboration” is understood to encompass a broadly inter-ontological range of participants, including—but by no means limited to—the geological, elemental, and molecular components that make up the 3D printing materials; the bacterial life⁸² relied upon to re-process those materials back to nature once human users have disposed of them; the flora and fauna that occupy the “receiving environment”⁸³ to which printed objects are sooner or later relegated; the emissions produced in the course of 3D printers’ operation; and the materials, machines, and humans at work in the production and delivery of the energy which powers these machines. In its collaborative production and its engagement with machinic processes, *Loss Sets* participates in a broader network of actors, but only to a degree: its only reference to the notion of disposal or end of life processes comes in the wholly conceptual form of its stated concerns,⁸⁴ and nowhere does it

⁸² Rachel Armstrong makes a compelling case for including microbial life in our conception of agency. She writes that we must reimagine and modify our quotidian environments in order to “incorporate the vital work of ‘life’ all around us. The majority of these life-promoting agents are microbial—whose feeding, metabolizing, excreting and reproducing keep our ecosystems turning—and by regarding them as neighbours that are diplomatically engaged in our household activities, we can establish co-constitutive relationships with them” (*Safe as Houses* 50).

⁸³ This is Napper and Thompson’s phrasing.

⁸⁴ For instance, and as noted elsewhere in this chapter, the project’s “response to ... losses” such as “the melting of the Canadian ice fields” and the way it is “guided by concerns [about] the future” (aarontucker.ca/3-d-poems/).

engage directly with the matter of its own eventual disposal or how well the materials of which it is composed will themselves be “processed” by their receiving environment.

In addition to problems with disposal and failures of decomposition, there are also concerns related to the sustainability of PLA during its production. Mechanical engineer Rezvani Ghomi and coauthors note that the greenhouse gas emissions “attributed to the life cycle of PLA show... that the conversion of the bio-sources to lactic acid and then [to] PLA is an energy-intensive process that releases a huge amount of CO₂ to the atmosphere” (13). Ghomi et al. demonstrate that while there is the “*potential* to make PLA a low-carbon material,” such an outcome is contingent upon human innovation in the conversion process and, therefore, the material’s low-carbon potential remains speculative (13, emphasis added). Recent research on the materials and processes associated with 3D printing also considers the emissions produced by both PLA and polymer-based plastics during printing on non-industrial scales, and this research calls into question libraries’ and labs’ choice of PLA plastic for air quality reasons. Engineers Héctor García-Gonzales and Teresa López Pola write that in tests of both PLA and ABS plastic printing in non-industrial-scale printers, “nanoparticle emission rates surpassed recommended exposure levels after only a few hours of printing[,] when printing can take days of work” (23).⁸⁵ They recommend that, because of the likelihood of pollutant concentration during longer printing processes, “engineering controls be undertaken (extraction system, good ventilation) before printing” (22).⁸⁶ The University of Ottawa’s Office of Risk Management recommends the use of PLA over ABS filament for 3D printing on campus because it “is generally preferred due to its safety for use in the food industry,” but recommends, regardless of the type of filament used, that printers be located in well-ventilated areas and advises that additional ventilation may be

⁸⁵ Recall Coupland’s description of his printing process as having “t[aken] ages” (“The National Portrait”).

⁸⁶ See also Justin Bours, et al.

required “to ensure that exposure to particles generated as a result of printing are minimized” (“Safety Sheet 17”). In relation to the emissions produced at PLA’s production and printing, too, then, there is a clear discrepancy between, on the one hand, popular conceptions that PLA is a relatively innocuous material preferred by eco-minded labs and libraries for its biodegradability and low emissions and, on the other hand, the properties it possesses and byproducts it produces, as described by researchers. *Loss Sets* appears not to attend to the airborne particulate actors circulating in the material-semiotic constellation of which it is part.

It is important to probe PLA’s processes of production and degradation and to consider these processes in relation to artists’ and makers’ uptake of 3D printing technology because, as I have discussed above, research shows that claims about PLA’s status as a “green” alternative to petroleum-based materials fall short of fully representative. 3D printing facilities that are accessible to artists and makers often signal a degree of virtue in announcing their choice of PLA as their primary or exclusive printing material, and that perceived virtue is effectively passed on to users by their association with those facilities. I want to trouble this lineage as I turn my attention towards *Loss Sets*’ participation in a broader ecosystem that includes not only human agents but also material, elemental, and microbial ones. To more closely examine the connection between natural ecosystems and works of art is to call upon artists and makers to account for their material and processual choices, in terms of both the ideological significance *and* the environmental sustainability of those choices. If, as research suggests, 3D printing processes contribute in significant ways to CO₂ emissions and to marine and terrestrial contamination by microplastics, to what degree must artists and technicians working in service of the arts and humanities be accountable for the effects of their chosen processes?

My analysis here is not intended as an argument against the use of 3D printing by artists and makers. Instead, I am pursuing ideas about materiality, resource-use, and the kinds of *processing* at work in *Loss Sets* and how it might be read against the processing that occurs at the life cycle stages through which the materials associated with 3D printing move. When we consider the environmental impact of both PLA and petroleum-based plastics at production, printing, and end-of-life stages, it becomes evident that 3D printing participates in a larger network of materials, spaces, infrastructures, and agencies; that its implications apply at both human and non-human scales; and that, as Harkness argues, the 3D printing process should be “reframed as a material-semiotic constellation... of humans and more-than-human actants that are in constant flux” (iii-iv). Approached in this way, 3D printing becomes not just a still-novel but increasingly accessible technology enabling the pursuit of one’s creative or utilitarian impulses in exchange for only a minimal investment of effort, time, or money; this view of the technology also embeds 3D printing in a broader constellation of material agencies and implications that, taken together, highlight the need for an ethical and accountable uptake of the technology and its affordances. The call for an ethical approach to 3D printing in the arts aligns with new materialism in its recognition of the entanglement of forces and effects within a larger, ontologically diverse, network. Rachel Armstrong writes that

[a]cknowledging real agency within the more-than-human realm enables the development of new relationships and environmental narratives ... that exceed familiar anthropocentric tropes, where humanity is no longer the pinnacle of all evolution but a companion and collaborator within a lively world. (*Safe* 48)

To approach 3D printing this way is to open up interesting possibilities in reading the significance of *Loss Sets* itself: mapping the project’s entanglements across materials and

ontologies helps elucidate the losses and gaps of which the work is composed. The processing *Loss Sets* undergoes, and the gaps in and absences represented by its subsequent hazy descriptions and inaccessible primary textual material, serve to reinforce the degradation of conventional meaning-making experienced by the reader in apprehending the project.

Loss, Absence, Nostalgia

Having thought through the material-semiotic network with which *Loss Sets* engages, I will now turn to the project more directly and query Tucker's "sculptural poetics" and the capacity of a work of poetry to exist outside of language (Tucker qtd. in Julia Polyck-O'Neill n.p.). Tucker asks, "If language is the material from which poetry is built, what becomes of poetry when it sheds language for pure form? What, if anything, is reconciled? What is reimagined? What is lost?" (Tucker qtd. in Polyck-O'Neill n.p.). I want to examine the project's treatment of loss and performance of nostalgia, and what its relinquishment of form and readability signifies in terms of the project's stated goals and concerns. I want to consider what a shift away from language means for the persistent humanism that has enabled Anthropocenic conditions—the very conditions which have led to the recession of the Columbia Icefield and, thus, to *Loss Sets* itself. I will approach the project's concerns with loss by first analyzing the primary textual material that *is* publicly accessible.

The exception to the general absence from public record of Tucker and Scott's co-written poems is Anstruther Press's limited series broadside printing of one of the *Loss Sets* seed poems, titled "Spiral Expansion of Muscles in Movement"⁸⁷ after Italian Futurist painter and sculptor

⁸⁷ Boccioni's 1913 sculpture, destroyed in Milan in 1927, was recreated in 3D printed form in 2022 by digital artists Anders Rådén and Matt Smith according to their analysis of the few existing photographs of the sculpture.

Umberto Boccioni's 1913 sculpture, similarly titled,⁸⁸ which was destroyed in 1927.⁸⁹ In this poem, the absence of Boccioni's original sculpture is reflected in the poem's language of erasure and degradation and, also, in the hollows and gaps comprising the poem's "translated" 3D printed form.⁹⁰ The last stanza of this poem describes a photograph the speaker sees in his parents' house. The photograph, which portrays the speaker's mother as a child alongside her brother, "long missing," and her father, "twenty years estranged, recently dead," is an old image, "almost completely faded brown" ("Spiral"). The photo is, however, also "new," in the sense that it has recently appeared in the speaker's parents' house ("Spiral"). On the one hand, this photograph is treated unceremoniously: it is "unframed" and "faded" ("Spiral"); on the other hand, it is given special, even commemorative, status by being placed on display, perhaps in response to the grandfather's recent death ("Spiral"). There is a tension between the states of grace and dereliction that this photograph occupies, a tension that speaks also to the cleaving of temporalities in the poem itself—the rupture between *before* and *after* encapsulated by the old photo newly on display in the mother's home—and the human attempt to reclaim what is lost. The photograph described in the poem depicts the speaker's grandfather "bent down, an arm

⁸⁸ Boccioni's *Spiral Expansion of Muscles in Motion* was one of three sculptures all thought to have been destroyed in 1927. These three lost sculptures preceded and informed his later sculpture *Unique Forms of Continuity in Space*, which survives still (Rådén and Smith, n.p.).

⁸⁹ It is unclear how exactly the sculptures were destroyed. In 2020, architectural historian Robert Harbison catalogued the varied accounts of these sculptures' loss: Soon after the artist's premature death in 1916, Harbison writes, "his family moved from Milan to Verona and entrusted Boccioni's unwieldy sculptures to Piero da Verona, apparently a friend, but not an artist who appreciated Boccioni's work ... He kept them for 12 years, but then consigned them to the local dump where they were immediately broken up. ... This appears to be only the latest version of the sculptures' fate. They've also been destroyed by a violent storm after the open-air exhibition of 1916, or turned over to the sculptor Virgilio Brocchi[,] who negligently let workmen clear them (Boccioni's sister's account). Further inconsistencies," Harbison concludes, "like the various dates assigned to the destruction, remain to be sorted out by further research" (Harbison n.p.). What is interesting to me about the mystery surrounding the sculptures' loss is the way it mirrors the obscurity around end-of-life processes for *Loss Sets* itself. For neither set of works is the eventual "receiving environment" explicit, and for neither set of works is its circulation in a fuller material-semiotic network acknowledged.

⁹⁰ For Boccioni, lost are the antecedents of the one surviving sculpture from this series, and for Tucker and Scott, too, the seed poems are all but absent, since only one is traceable.

around each child against forest background” (“Spiral”). The scene is a harmonious one, capturing a time before the speaker’s uncle went missing and the grandfather’s “memory fell apart, poked with diseased holes” (“Spiral”). Since the moment in time captured by the photo, a series of degradations have occurred in the speaker’s family: memory has become perforated, loved ones have dispersed or disappeared, familial relations have become tenuous. The “processing” that occurs in the poem is subtractive, while that which 3D printing performs is additive. In other words, units in this stanza have been worn away in processes antithetical to the additive and deposition processes by which 3D printed objects take shape.

Pictured alongside Anstruther’s printing of this *Loss Sets* seed poem is a visual rendering of the printed 3D “translation” Tucker et al. produced from this poem (see Fig. 7). This image effectively illustrates the gaps and absences described in Tucker and Scott’s poem: the hollows and cavities perforating the structure are as integral to the whole as are the solid buttresses of the framework itself. The poem is ambivalent about the value of either additive or subtractive processes. Speaking directly to Boccioni’s original sculpture, in the seed poem’s first stanza the speaker recounts the replication of the lost artwork, Rådén and Smith’s duplicate a “perfect mirroring” of the original, despite being undertaken by a different maker and by different processes (“Spiral”). The similarity of the replica to the original is so striking that “its nerves [are] your nerves its tactile your tactile” (“Spiral”). However, while the replica possesses an uncanny realism and a powerful likeness to its antecedent, it also conveys a falsity that undermines its parity with the original sculpture. The material processing which the replica undergoes undermines the ultimate vitality of the duplicate: its “veins [are] made hollow, plastic and / fibrewound around each delicate false fingerbone” (“Spiral”). Of the reproduction, which the poem calls the “hand that is not yours,” the speaker asks, “what moves when you move that

hand?” This query signals the reproduction’s lack of vitality in comparison to the original: its ultimate status as synthetic, an imitation of that from which it takes its form (“Spiral”). In the last stanza of the *Loss Sets* seed poem, too, the reproduction is imperfect: re-picturing what is lost, the photograph is not only “faded,” but “the handwriting on the back is thin and unreadable” (“Spiral”). The reproduction is itself in the process of degradation, and we can see from its state that it, like the moment it depicts, will ultimately be lost to time.

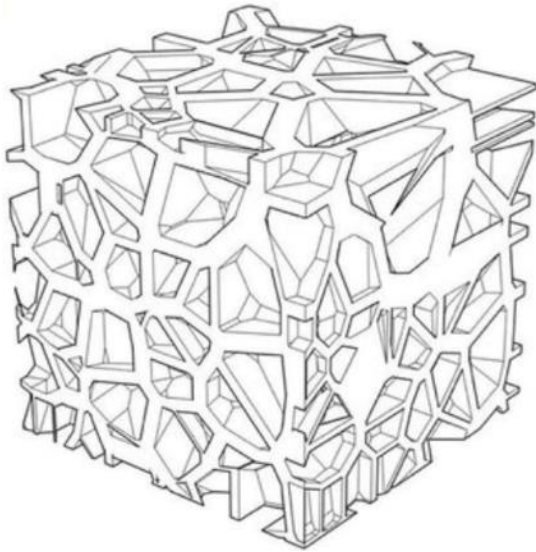


Fig. 7. Visual rendering of a “Loss Set” from Anstruther Press’s limited print broadside.

The seed poem’s middle stanza reinforces its concern with replication and its ambivalence toward the kind of renewal that 3D printing enables or seems to enable. This stanza envisions a comprehensive reversal of the passage of time and of patterns and instances of degradation—environmental, artistic, cultural—but takes an ambivalent stance toward this reversal, beginning with an optimistic framing which it then undermines by way of shifts in tone and vocabulary. This stanza’s early framing calls back that which is lost:

utopia: to replace whatever has been removed

reverse melt the receding iceshores

resculpt cubist movement and the destroyed Boccioni (“Spiral”)

These early lines reverse environmental degradation and the loss of culturally significant artworks, but this utopic renewal is soon overshadowed by a creeping sense of ambivalence. The renewal and reproduction described in these early lines—“replace,” “reverse,” “resculpt”—becomes redundant, wasteful, sybaritic: “rehire all postcapital workers to remake / every single object they remember, can conceive of / ... again and again” (“Spiral”). These lines call up the sheer excess of industry and desire- or impulse-driven accumulation, but they also introduce a sense that replication results in a less vital, less satisfying version of the thing desired:

... I
 see trace, bulk versions of speech, I know
 ruined cities, my nursery, memory rooms
 fixed in fleeting, forms
 a remembered name in quiet, crystal
 texts in dulling formations (LS2)

In these lines, language is a “trace” of itself, a less authentic version, produced in “bulk.” Lost places and memories are recreated in ways that mean they cannot last: they are fleeting, any fixity an illusion. Reproduced words are muted, crystalized and impenetrable, dull. Here, the utopic reversals performed by the stanza’s early lines are undone (reversed reversals), and the resultant reproductions cast as empty, excessive, and ultimately unsatisfying.

It is the poem’s ambivalence, and sometimes aversion, toward the replica—toward the “translated” version of language, memory, and spatial or other units—that connects ideas of replication to the notion of loss that drives *Loss Sets*. At first glance, the project appears to privilege the replica, given that its “translation” process obscures the original, leaving only unreadable 3D printed forms, a single published poem, and a few brief and minimally descriptive

artists' statements as the sole materials for analysis. And yet, in Tucker and Scott's seed poem the replica is cast as a dull, unsatisfying version of its antecedent: a pale reproduction of a much livelier and more organic original. *Loss Sets* frames the replica as a muted copy also in its undoing of conventional readability through the 3D printing "translation" process: the poems' translated forms compel the reader to become a different kind of interpreter: to "read" the gaps and absences that remain and to interact with the work sensorily rather than linguistically. In these ways, the translation process disables conventional, readerly interpretation. In their 3D printed forms, too, then, the replicas are ineffectual versions of their more vibrant, intelligible antecedents. In enacting this tension between the replica and the original, Tucker et al. communicate a pre-emptive nostalgia for what is not yet lost, taking the reader-subject to the *other side* of loss, modeling the absence of what is gone, and previewing the longing, discomfort, and disorientation that await after degradation—environmental or linguistic—has occurred. In its content and its form, then, *Loss Sets* stages the erasure of organic forms and "pure language" and thus presents a model for envisioning the outcomes of the pursuit of degradation that our persistent humanism denotes.

The pre-emptive nostalgia *Loss Sets* enacts mirrors the unsettling temporality of the Columbia Icefield itself, a temporality that is at once simultaneous and achronological. As the Icefield melts, it enacts a materiality that is both additive and subtractive, revealing historical remainders and juxtaposing Anthropocenic context with long buried geological and cultural artifacts *while also* fuelling current scientific and archeological inquiry into changing human and nonhuman ecologies. Among these remainders are the ruins of an American military camp dating from the Second World War (see Fig. 8), whose remains—wood fragments, rusty metal, scraps of fabric, an icebound Jeep—compose an "ensemble" which, Art historian and longtime glacier

observer Benedict Fullalove writes, “is slowly disintegrating as it moves with the glacier down toward the terminus, still several kilometres away” (276). This garbage patch challenges our conceptions of “wilderness [and] splendid isolation” (Fullalove 276), pitting ideas of the sublime⁹¹ against the stark implications of climate change. Another emergent remainder takes the form of a vast and ancient patch of caribou droppings, “a metre and a half deep and the size of a football field”: thousands of years of accumulation emerging out of the melting glacial ice (Julie Cruikshank 245). From this patch scientists have extracted data to support research into “the prehistoric ecology of large caribou populations, the implications of climate change for caribou, and the human use of high-elevation hunting sites” (Cruikshank 246). Other remainders emerging from the melting glacier have likewise informed science: animal carcasses have provided DNA that scientists can compare to that of living populations; deposits of prehistoric pollen have informed reconstructions of historical climates; and tools made from materials such as hide and wood, which in other conditions would have long ago eroded, have offered insights into the design principles and technologies of ancient human populations in the arctic region (Cruikshank 246). The simultaneous additive and subtractive processes at work in the Columbia Icefield see ancient glacial ice melt and form (or reveal) new (or newly exposed) topographic features: lakes and moraines, for instance, in areas that 30 years ago were covered by the body of the glacier itself (Fullalove 275). Not unlike 3D printing technologies, then, the Icefield is both ancient and novel, its materiality both enduring and finite: the former contribute to the extraction

⁹¹ Fullalove writes that “[t]he Columbia Icefield and its surrounding peaks and valleys together create a vast and wild landscape of beauty and grandeur—the very epitome of the natural sublime” (263). He complicates this idea shortly after, however, when he notes that settler and Indigenous perspectives vary greatly in terms of the epistemological positions they occupy in relation to glaciers and humans’ relationship with them. For Indigenous peoples in glaciated regions, he writes, “glaciers are not inert objects, but rather sentient forces that respond to and communicate with humans.” He discusses the ways that historical accounts demonstrate the cautious respect shown by Indigenous peoples toward the glaciers with which they cohabitate, and this position “reveals a conception of the glaciated landscape quite different from that of the Romantic sublime embraced by [early] European travellers” (273-4). For further reading on the symbolic and cultural resonance of glaciers, see Mark Carey.

and processing of ancient and non-renewable resources in their indulgence of fleeting human impulses, the result of which will remain indeterminately after its disposal. The latter responds to rising temperatures by offering up previously icebound artifacts that support research into the very ecological changes which produced the thaw itself.



Fig. 8. “Remains of US 10th Mountain Division Camp, Saskatchewan Glacier, August 2010.” Image from Benedict Fullalove’s “Place, Desire, and Maps: Representing Wilderness at the Columbia Icefield.” (Note that the Saskatchewan Glacier is one of the major “toes” of the Columbia Icefield [columbiaicefieldsskywalk.com].)

In their use of 3D printing technologies to “respond to”⁹² ecological and other forms of loss, Tucker and his collaborators participate in this ironic cyclicity while leaving largely unacknowledged the larger network of materials, spaces, infrastructures, and agencies in which it participates. I suggest that a fulsome, unaffected “response” to loss—glacial or otherwise—would confront the “material-semiotic constellation... of humans and more-than-human actants” of which Harkness writes (iii-iv): it would examine its own role in the forms of decline or

⁹² These are Tucker’s words, from “Addressing Machine Co-authorship” (5).

obsolescence it documents. It would trace its own course through a broader system of causes and effects, and recognize its implication in the outcomes produced by the material processes of which it makes use. In this way, a creative “response” to ecological (or other forms of) decline would express a locatedness that mirrors the contextual embeddedness of the Icefields themselves: Fullalove illustrates the embeddedness of the Icefield in its context, and its implication in larger systems and networks, when he describes the trajectories of the rivers running from it. He writes that,

[t]he Columbia, on its way down to the Pacific Ocean over innumerable dams, bisects the grounds of the Hanford nuclear processing facility in Washington State. As the Saskatchewan flows past Edmonton on its way to Hudson Bay, its waters are pumped through the pipes of West Edmonton Mall to fill artificial lagoons on which float an ersatz pirate ship. The Athabasca flows up through northern Alberta to join the Peace River and eventually drain into the Arctic Ocean; but before it does, its water runs past Fort McMurray and along banks lined with vast tailing ponds. The Icefield, so remote, so construed as Other, does not exist in a world separated from the lingering consequences of nuclear waste, the grotesque excesses of contemporary consumerism, and a global addiction to hydrocarbons. (276)

Loss Sets' treatment of loss and performance of nostalgia by way of a relinquishment of form and readability is conceptually compelling; however, the project's refusal to consider its own implication in larger ecosystemic processes represents a missed opportunity to meaningfully engage with ideas related to ecological and other forms of loss.

Ethics, Materiality, and Artistic Practice

Bruno Latour and Adam Lowe write that “the obsession of [our] age is with the original” and propose a recalibration of the values attached to reproductions and their antecedents: “Rather than ask, Is this isolated piece an original or a facsimile,” they suggest that we instead “inquire, Is this segment in the trajectory of the work of art barren or fertile?” (277-9). This reframing serves as an important reminder that *Loss Sets*’ various forms and stages are all parts of a single trajectory, but Latour and Lowe also reframe the inquiry into reproductions and originals in order to argue that copies act as insurance against the obsolescence or extinction of the original, since without copies, “the existence of the original is at stake” and will “slowly disappear” (279). However, I suggest that copies are not in themselves insurance against extinction or obsolescence, but that technologies and infrastructures which support indiscriminate replication and the unfettered pursuit of human impulses contribute in concrete ways to forms of extinction that ensure an end to the trajectory and fertility that Latour and Lowe describe. Thinking about copies in this way underscores the urgency of approaching 3D printing in the arts not as “tinkering for tinkering’s sake” (in the vein of Douglas Coupland and as described by Boggs et al.), but rather as a process which demands accountability, deliberation, and a consideration of how it shapes our thinking—in other words, what it “add[s] to the metaphor and the argument being made” in a creative project (Tucker, “Replication” 1).

For Tucker, involving machines in the “translation” process is a means of integrating a materiality and multimediality into the writing process, and he defines these alternate media and materials broadly, casting a wide net to include some quite beyond those comprising the works of the other authors and artists my larger thesis project examines. In addition to “the medium of the written language,” Tucker writes, a multimedia writing process also includes “the electronic

pulses of a computer processors' [sic] logic gates, the texture of photographic paper, the back-and-forth zig-zag of a 3D printer, or a laser cutter" (Tucker, "Addressing Machine Co-authorship" 2). The integration of these machinic agents into the creative process—what Tucker calls a "symbiotic" collaboration between writers and computers—allows Tucker to "extend" himself beyond "human rationality" ("Addressing Machine Co-authorship" 2). There is a striking irony in using the *Loss Sets* writing process as a means of achieving a kind of posthumanism when one considers the ecological impact of the processes and materials which give form to the work and other 3D printed objects. In this light, using unsustainable processes and non-renewable or non-degradable materials to comment on ecological and other forms of loss—and to state that these processes help bring about a productive posthumanism—is both an uncomfortable formulation *and* perhaps the best possible articulation of how we can ensure for this planet a posthuman era.

In *Loss Sets*, Tucker et al. "translate" poems into three-dimensional forms in a process that mirrors the rendering of organic matter into polymers for the production of printer filament. In each case, the original becomes illegible through the processing it undergoes, each process turning a raw material (language, fossil fuels) into something incomprehensible, something that cannot be "broken down" either by biological processes or by way of conventional reading and interpretation practices. Confronted with this illegibility and the near-total absence of primary textual material, the reader experiences a pre-emptive nostalgia for organic forms and "pure language," sensorily anticipating their eventual eradication. Readers' sensory experience of *Loss Sets* provokes an uncanny sense that the project's processing of language into an unreadable form—and its use of ecologically harmful materials and processes to "respond" to ecological degradation—underscores its participation in the systems of decline it sets out to document.

I want to close by renewing the call for what Erin Anderson and Trisha Campbell, after Karen Barad, term a “posthuman ethics” (334). Anderson and Campbell argue that we must “understand ethics—and, by extension, empathy—as our ability to *respond* through and with ... new entanglements and to do so through intentional digital practice” (334-5, emphasis original). Rachel Armstrong, too, argues for an ethical and intentional use of materials—and, by extension, technologies—when she writes that we must “equitably redeploy [resources] in ways that promote biodiversity and benefit all species” (78-9). An ethical approach to 3D printing in the arts and humanities is one which recognizes the ontologically varied agents implicated in our creative processes, and such an approach constitutes “an opportunity to establish new kinds of creativity, intelligence and care for the world that sets a different agenda for the way we live” (Armstrong 60).

Chapter III

“Constantly a Beginning”: Generative Degeneration and Ruinous Renewal in

Madeleine Thien’s *Vancouver of the Mind*

we’ve
arrived, I’m sure, at one definition of beauty—
a sort of lighthouse, somewhere to start.
— Bahar Orang, *Where Things Touch*

I am inhabited. The people
on the sidewalk
are proof
of a context
— Jeff Derksen, *Dwell*

In a 2022 roundtable discussion on the subject of dead and dying digital platforms, Sarah Wasserman observed that “an important tension inherent to the way we think and talk about the web [is] that it is constantly dying, which is also to say that it is always (at least partially) *alive*” (Muir McCammon, et al. 24, emphasis added). This chapter examines Madeleine Thien’s “multimedia storytelling project” *Vancouver of the Mind: On Hastings Street (VM)* as a work occupying the space between obsolescence and liveliness, and thus which, like other decaying structures, “confounds our basic notions of objects” (McCammon, et al. 24). As far as objects of literary or artistic analysis go, Thien’s project is somewhat slippery, and given the project’s distinct ephemerality, I have chosen to let its tone and structure guide my way in. *VM* begins with three elements that serve important tonal and structural functions: first, its subtitle, “On Hastings Street,” which locates readers in a specific and bounded area of downtown Vancouver and harnesses the directive specificity of preposition and proper noun to signal to readers at the outset of their engagement with the project the particular, street-level location their reading of the work requires them to occupy. This subtitle functions as signage: it is a spatial marker that

announces to readers “you are *here*”⁹³ and activates in them an embodied, located reading process. The second element with which Thien begins *Vancouver of the Mind* is her instruction to readers regarding how to navigate the project: “To walk chronologically through this [work],” she writes, “begin here or click on almost any image” (*VM*). This instruction contains a grammatical tension which causes it to function as both an invitation and a directive: on the one hand, the phrase “to step forward,” which punctuates the project, contains the suggestion of unidirectionality (i.e., “forward” is the only direction one *can* move through the project) and, on the other hand, the phrase’s use of the infinitive “to” suggests that the reader is presented with a choice in how to proceed (i.e., *If you would like to* move forward). The third element which structures and sets the tone for the project at its outset is the suggestion of imminent navigational guidance: “A map is in progress,” Thien advises readers (*VM*). This claim, in conjunction with the note that the project is “[a] work-in-progress,” gives the impression of currency and liveliness (*VM*). However, no map has yet been provided, and, more than a decade since the project’s inception, it seems unlikely one is forthcoming. Indeed, the project appears to have been abandoned, its last update having been made in January 2014 (*VM*, “Archive”).⁹⁴ Together, these three tonal and structural features work to prepare the reader for the tensions running through the project as it undergoes a process of degeneration.

Beyond these initial complexities and fissures, there is an additional compelling intricacy to the way *Vancouver of the Mind* begins and the navigational strategies or avenues it offers

⁹³ This subtitle echoes the title of Stan Douglas’s composite panoramic photograph *Every Building on 100 West Hastings*, which similarly locates its audience at the precise location it takes as its subject: not just *in Vancouver*, but, much more specifically, on a specific block of one particular, named street.

⁹⁴ In the time between the writing of this chapter and the completion of the dissertation as a whole, *VM* has changed yet again, perhaps due to upgrades to the Tumblr app. Upon last access, in June 2025, sponsored content took up a distracting third of the page, and a “log in” button occupied another quarter. Thien’s work itself was confined to a narrow strip down the centre of the page, a more linear progression of individual “posts” than it had upon my last reading of the work while writing this chapter.

readers. Embedded in Thien's early invitation to "begin here" is a hyperlink that leads to a photograph, dated 1945, of the intersection of Hastings and Granville Streets (see Fig. 9). There is a temporal and structural complexity in this seemingly simple invitation to begin at this photograph one's "chronological" progression through the work (*VM*). While other components of the project contain options to click both "back" and "forward," *this* element, by virtue of its identification as the *starting* point for readers' movement through the work, seems to claim the primary position in the intended chronology of the project. However, from this photograph of the intersection of Hastings and Granville Streets, one can click *only* "back" through the work, effectively inverting the chronology of the project. If one begins reading *VM* at this element, as is apparently intended, and clicks back through all the components to the last one, one reaches the element that appears at the top of the project as a whole and which offers *only* the option of clicking "forward"—one arrives at, in other words, the *beginning*, but only by starting at the end and working backwards. These two bookends, framing the inverted order of the components of the work, suggest that Thien has structured the project to begin at the end and end at the beginning—a beginning which quotes Michel de Certeau, whose words reinforce Thien's unsettling of chronology: "Writing is born from and deals with the acknowledged doubt of an explicit beginning, in sum, the impossibility of one's place. It articulates an act that is constantly beginning: the subject is never authorized by a place" (*L'Écriture de l'histoire*, qtd. in *VM*). In *Vancouver of the Mind*, a qualified locatedness and complicated temporality are imposed upon the reader, and these require a continual re-entry into the work, while at the same time casting doubt on the very possibility of entry or beginning. Indeed, in her inversion of chronology and insistence on continual re-entry, Thien both locates her reader in space *and* calls into question the very possibility of being firmly, reliably located in space or time. Vancouver, in particular, is

well suited to such qualified temporality and spatiality because of the composite that it represents: as Paul Stephens argues, it is a city that “cannot be reduced to a simple notion of placeness” and whose “many identities are overlaid and transient” (“Dystopia of the Obsolete” 21, 29). Given these difficulties, the grammatical and chronological complexities presented at the beginning of *VM* pose a challenge to readers: when confronted with a work so fraught with navigational and temporal impediments and inversions, how does one *begin*?



Fig. 9. Hastings Street, Vancouver. Intersection of Granville Street in foreground. (Image from *Vancouver of the Mind*.)

In this chapter, I will examine *VM*'s temporal, spatial, and structural composition in order to map Thien's answer to the question of how to begin—and sustain—one's readerly movements through a work brimming with the partial and the obsolete. In order to build a framework for examining the structure and composition of *Vancouver of the Mind*, to situate my reading of the project in the socio-historical context from which it emerges, and because of the absolute

specificity with which Thien identifies the spatial referent for her project, this chapter reads *VM* alongside works by other writers and artists who address Vancouver's and the Hastings Street corridor's social, historical, and economic structures and evolutions *and* alongside a selection of Thien's own formally unpublished and/or critically un(der)studied⁹⁵ works that share with *VM* the characteristic of being what Caroline Levine calls an assembly of "loosely and unevenly collected" parts (*Forms* 17).⁹⁶ It is important to situate my analysis of Thien's project in the context of these other works because of the way *VM* resists boundedness and reaches out, at its loose edges, to other works of various disciplines as relations and associates in the larger network in which they all circulate.

Levine probes the "radical potential that lies in acts of rearrangement" (17) and suggests that the most strategic political action arises not from identifying coherent and abiding organizing structures such as binaries and hierarchies, but from carefully considering the loose and disjointed arrangements that give form to social life (18). Taking up Levine's emphasis on the affordances of the fluid and the makeshift, I will attend to the formal, temporal, and structural qualities of *Vancouver of the Mind*'s composition and examine the mutations and forms of circulation that occur among its heterogeneous parts. I will read *VM* as a living document and a digital ruin, a decaying virtual structure whose gradual degeneration over the years since the

⁹⁵ By this term I mean those shorter works that are either formally unpublished (and appearing only on her own websites), or as yet critically unstudied. Some are short essays, and some are multimedia works more akin in structure and tone to *Vancouver of the Mind*. I contrast these works with Thien's published novels and short story collection.

⁹⁶ Levine's approach to formalism has been critiqued for its conservatism and territorialism, its implicit message to "scale back, pare down, small aims met are better than grand ones unrealized" (Carolyn Lesjak 237). As Tom Eyers argues, however, as long as one avoids the temptation to "retreat into form, [and to foreground the] reassuringly abstract ... at the expense of political salience and social relevance" (n.p.), and as long as one avoids assuming that "abstraction and formality are inherently apolitical and ahistorical (n.p.), Levine's work provides a valuable lens onto "the political effectivity of forms, of how we are conditioned, limited and enabled by multiple formal shapes and rhythms" (n.p.). It is my intention that the macroecological approach this dissertation takes affords such a reading of Thien's project.

project's creation has produced a functionally idiosyncratic relic of the work's former self, but whose liveliness persists and presents a compelling analogue to the displacements and mutations *Vancouver of the Mind* observes in the city it takes as its subject. Specifically, this chapter argues that Thien's project approaches Vancouver's historic and ongoing displacements and dispossessions by formal and structural means, applying the logic of digital multidisciplinary and invited collaboration to its examination of the gaps, absences, and injustices occurring in and from its spatial focus. In this way, Thien constructs a text whose heterogeneous, fragmented, and (now) degenerating digital form reflects, on the one hand, the precarity of urban streetscapes and social coherence, and embodies, on the other hand, a living, changing archive of the in-between and the impermanent along Vancouver's Hastings corridor. Thien's project is a particularly useful one to an inquiry into digital decay and the representation of this particular urban space because of the way it resists absolute decomposition: it continues to insist on its own liveliness even while—and perhaps *because*—that liveliness assumes an altered and unintended form. In this way, *VM* asserts for the infamous and maligned neighbourhood it takes as its focus a vitality and richness with which that urban space is not normally associated.

Thien created *Vancouver of the Mind* during her time as writer-in-residence at Simon Fraser University in 2013-14, during a period in which the City of Vancouver faced intense scrutiny for its policing practices and its housing and development policies. Thien's project emerged just three years after the contentious redevelopment of the Woodward's department store building, three years after Crown prosecutors decided *not* to try Robert Pickton on the 20 outstanding murder charges he faced after his conviction for the murders of six women from the Downtown Eastside (DTES), and the same year as the demolition of East Hastings Street's

United We Can recycling depot to make way for a condo tower.⁹⁷ These and other events provide the context for a reading of *Vancouver of the Mind* as it establishes itself in the body of place-based works delineated by Vancouver writers such as Lisa Robertson, Meredith Quartermain, Mercedes Eng, Cecily Nicholson, and, in other of her works, Madeleine Thien herself. Against this backdrop, and in the context of the socio-economic forces applying pressure to Vancouver's Hastings corridor in the first two decades of this century, Thien's project stands out for its multimodal and collaborative approach to the social and historic complexity of the place she examines. Thien, the child of Malaysian-Chinese immigrants, grew up in the neighbourhood surrounding the Hastings corridor and examines this neighbourhood and its dispossessions and displacements from the perspective of one who knows the area intimately. This perspective enables the nuanced view and tone of the located observer: one whose observations are informed by a lived experience that can knowledgeably and respectfully reveal, if not fill, the gaps in conventional media representations of this urban stretch, representations which are often singularly focussed on themes of poverty, violence, and addiction.⁹⁸ It is from this located position that Thien represents the recurrent dislocations that have occurred along the Hastings Street corridor throughout the last century.

Thien writes that *Vancouver of the Mind* facilitates "a collaborative gathering of sound, images, video, new writing, and interviews" in order to illustrate the "novel in stories" that

⁹⁷ The *Vancouver Sun* reported in 2013 that this tower was predicted to comprise of 60% social housing and 40% market value housing (Kevin Griffin). The *Daily Hive* reported in 2018 that the development, named the Olivia Skye, was complete and that of the building's 198 units, 120 were designated as social housing units and 78 as market rental units (Kenneth Chan).

⁹⁸ Nicholas Blomley and Sikee Liu outline the findings of their analysis of hundreds of print media representations of the DTES published between 1996 and 2008. Their analysis found that 94 per cent of the articles their study examined offer a "negative view" of the neighbourhood, most often characterizing the area as plagued by medical problems (such as addiction or HIV/AIDS), homelessness, violent crime, and "resource distribution problems and their manifestations," such as the shortage of affordable housing and the decline in the number of available single-room occupancy accommodations in the neighbourhood ("Making News and Making Space").

Hastings Street embodies (“About”). A fuller list of the components comprising the project, which is housed on Tumblr, includes maps, prose and poetry (written by Thien herself and excerpted from the work of other writers), photographs (taken by Thien and sourced from city archives), and questionnaire responses contributed to the project by attendees of a neighbourhood writing group.⁹⁹ These generically varied components, laid out in an irregular grid on the screen, combine to produce “a historical map of Vancouver” that foregrounds the way this streetscape is enmeshed in a complex of evolving cultural, socio-economic, and historical forces (*VM*, “About”). The project’s generic composition speaks to the capacity of the partial, the decaying, and the fragmentary to convey a vitality that tidy coherence and clean suturing can not.¹⁰⁰ By reading *VM* as a living document composed of shifting, inverted, and degenerating parts, I want to demonstrate that while formally irregular, the work is not haphazard, and while it is degenerating, it is not derelict. In this view, Thien’s project is compelling and lively *because* of the structural unevenness, functional irregularity, and unexpected affordances its compositional decay provokes. I suggest that there is generative potential in the project’s structural and functional inversions and gaps, and in readers’ interactions with them. I suggest that *VM*’s “loose and disjointed arrangements,” and their continual *rearrangement* at the hands of software obsolescence and time, provoke a shift in audiences’ reading practices and attentional habits, and I wonder whether such arrangements, in providing a representational counterbalance to dominant narratives about the neighbourhood, might, incrementally and over time, inform the development of a more generous and nuanced

⁹⁹ The now-defunct Thursdays Writing Collective.

¹⁰⁰ For example, Stan Douglas’s composite photograph *Every Building on 100 West Hastings*, which later in this chapter I discuss as a counterpoint to Thien’s project.

perception of the Hastings Street corridor,¹⁰¹ even as its continued mutations are plotted on the longer timeline along which it continues to unfold.

In approaching Thien's project as an evolving digital ecology and its formal and functional degeneration as *text*, it is useful to consider Wasserman's claim that art and literature can "reveal the structures of the world as it is while making space for the possibility that its infrastructures might be used differently" (138). In her introduction to *The Death of Things: Ephemera and the American Novel*, Wasserman asks, "What happens when it's an object's disappearance, its transience, that takes centre stage? [How does literature] help us reckon with the transient nature of things? And how might that reckoning change our ways of organizing the world, of relating to the objects around us?" (1). Wasserman's project considers literature's disappearing objects, those in the "ongoing state of ceasing to be" (1). In the context of *Vancouver of the Mind*, a consideration of ephemerality or obsolescence¹⁰² necessarily extends beyond the "objects" Thien's project represents—streets, structures, signage—to the medium itself: the digital platform which gives function and form to the work, and the networks and infrastructures enlivening it. The consideration of transience and impermanence also requires attending to the specifics of the particular urban space to which Thien attends, and asks how *VM* harnesses spatial specificity to illustrate both the "structures of the world as it is" and the possibility that its "infrastructures might be used differently" (Wasserman 138). The structures and infrastructures of Thien's project emphasize the historical and ongoing mutations of Hastings Street, and the cultural, social, and economic inflections and alignments of those

¹⁰¹ Indeed, Clint Burnham writes that the Downtown Eastside possesses a "wealth of social and cultural capital" (n.p.).

¹⁰² Wasserman distinguishes between these "neighbouring terms": "obsolescence leaves behind a remainder that is outmoded" (6), trash is an object that "must be displaced or destroyed" (6), and ephemera are "fleeting currency" (6) that "vanish in principle and yet so often remain with us [and thus] dramatize the dynamics between the temporary and the permanent" (3).

mutations. By compelling readers to confront the transience and impermanence of the work and the place it represents, Thien's project compels a change to our way of, in Wasserman's words, "organizing" and "relating to" the specific objects, spaces, and histories housed along Hastings Street. Readers' habitual ways of interacting with the digital sphere are interrupted when a work is in the process of degeneration, and such decay subverts our expectations of what digital works do and how they behave. Degenerating digital texts alter the reader's orientation to the components of the work, and such texts acquire unexpected affordances and a kind of liveliness not normally attributed to the digital. Before examining the specific forms of degeneration *VM* exhibits, however, I will first think through what attention to one's reading habits and formal expectations affords when reading digital degeneration.

Reading Digital Degeneration

Attending to the degeneration of digital works challenges two of our most fundamental (and paired, but contrasting) expectations of and acculturations to the digital. First, it subverts our habit of thinking of the digital as ephemeral and transient, as in continual flux as it undergoes updates to content, aesthetics, and software. Second, attending to the degeneration of digital texts challenges our idea of the perseverance of the digital, our uncritical sense that it endures, in every moment and in every place: a solid and dependable tool at our unending disposal. By unsettling these paired assumptions, attending to digital degeneration reframes our thinking of the digital to highlight, on the one hand, its ability to act as a kind of archive, to reflect and document changes over time to the digital and our uses of and relationships to it *and*, on the other hand, its vulnerability to the forces of time, to the limits of humans' ability or desire to maintain the archive, and to the continued viability of increasingly outdated software. This view sketches the similarities of the digital degeneration process to those of architectural ruination:

like architectural decay, digital degeneration presents a record of the past and documents its susceptibility to the forces of its environment, for as long as the structure is left standing. In this way, the digital structure, like the architectural one, becomes a model for “adaptive reuse,” inviting new forms of engagement, and embodying a “soft change, instead of the traumas of sudden and complete obsolescence” (Daniel Abramson 71). In this model, evolving forms and capacities are *in themselves* interesting objects to read and decode, and they challenge us to (re)consider how we relate to the textual and architectural structures around us, particularly once those structures begin to degrade. Babette B. Tischleder argues that “perception and interpretation are [not supplemental processes but] constitute the original structure of being-in-the-world” (129). Read thus, an interpretive engagement with degenerating (digital or architectural) structures—whose period of use-as-intended has elapsed and the consideration of which therefore constitutes, in Tischleder and Wasserman’s words, a kind of “thinking out of sync” (*Cultures of Obsolescence* 1)—is as necessary to an engagement with the world around us as is the interpretation of those structures still operating in active service of industry or capitalism. Both forms of interpretation constitute what Jane Bennett calls “attentive encounters between people-materialities and thing-materialities” (*Vibrant Matter* x), but it is degenerating structures—and their material lifespan, from resource extraction to manufacturing to disposal—that signals the ecological weight that the process of degeneration bears (see Tischleder and Wasserman 6).

Forms of (De)Composition

It is necessary, when thinking about degenerating digital structures and infrastructures in the context of Madeleine Thien and *Vancouver of the Mind*, to consider the fragment as both unit of composition and byproduct of decomposition. In recent years, Thien’s work has prompted

questions about the challenge Thien's (de)compositional strategy presents for reading practices. Guy Beauregard, for instance, asks, "What sort of reading practices could adequately engage with a text that sets out to represent, in such a fragmentary manner, such histories of destruction and loss" as does *Dogs at the Perimeter*? (176).¹⁰³ He continues, "When confronted with texts representing difficult histories across different times and spaces, what would constitute an adequate form of engagement?" (173). Beauregard suggests that the novel's (like, I suggest, *VM*'s) complex of structural, imagistic, and textual fragments, and the challenges that structure poses to reading practices, interrupt "strategies of containment" that would insulate readers from "learning to imagine, however partially, the profound impacts of state-directed violence, historical and ongoing" (185). While there is no "clear route" or visual simplicity in *VM*, I suggest that such a tidy composition would insulate audience from object, preventing a located, contextualized reading of the work's spatial referent. Instead, Thien's degenerating composite compels the audience thoughtfully and intentionally to navigate through the work and attend to the context in which it is embedded.

In addition to treating the displacement of those who currently live and work in the DTES, *VM* also attends to the forced removal and internment of Japanese Canadians¹⁰⁴ during WWII, and in her consideration of this displacement and others, Thien turns to photographs. Vancouver photographer Leonard Frank's "Leaving Vancouver"¹⁰⁵ appears near the top of *VM* and shows

¹⁰³ Beauregard's question responds in part to Thien's repeated use of the heading "[fragment]" as an organizing strategy in the novel. In thinking through this method of ordering the sections of the novel and Thien's (and readers') work to "stitch together" the fragments of which *Dogs at the Perimeter* is composed (173), Beauregard asks what readers "need" when reading works that, because of their fragmented form, do not present "a clear route forward" (173).

¹⁰⁴ Approximately "8000 Japanese Canadians passed through Hastings Park between March and September, 1942" ("Japanese Canadian"). Of those labeled "Enemy Aliens," 63% were Canadian born [and] 14% were naturalized citizens. Only 23% were Japanese Nationals" ("Japanese Canadian").

¹⁰⁵ In 1942, Leonard Frank was contracted by the BC Security Commission to document the removal of Canadians of Japanese descent from the BC coast (Japanese American National Museum). The BC Security Commission was tasked with facilitating the removal and relocation of Canadians of Japanese descent, with the assistance of the

Canadians of Japanese descent in and next to a train just before it leaves Hastings Park for internment camps in the BC interior. In this photograph, people lean out of the train's windows, apparently saying goodbye to those on the platform. A second photograph featured in *VM*, this one credited to the *Province Newspaper*, shows a Japanese man walking across Hastings Park in 1942 (see Fig. 10). In the immediate background is a large grassy area—evidently the Hastings Racecourse, an open field where vehicles were processed and stored after they had been seized from those being relocated to internment camps (“Japanese Canadian”). In a jarring juxtaposition, the Pacific National Exhibition rollercoaster is visible in the far distance, highlighting the unsettling contrast between the various uses of Hastings Park during the 20th century: on the one hand, an amusement park, dubbed “Happy Land” in 1926,¹⁰⁶ and, on the other hand, a wartime “holding pen” for roughly 8000 people of Japanese descent in transit to BC internment camps.¹⁰⁷ Directly underneath this photograph, a third image, titled “1923. Hastings Park Stadium,” also shows the Racecourse, now empty.¹⁰⁸ Thien’s choice of images to represent the displacement of Japanese Canadians during the Second World War strongly evokes a sense of isolation and loss: in these images, structures and places often figure most prominently, and when people are pictured—the singular figure in an otherwise empty landscape, the railway station goodbyes—they are depicted in a way that foregrounds their alienation and dispossession.

RCMP, the provincial police, the Department of Labour, and the (now defunct) Office of the Custodian of Enemy Property (“Japanese Canadian”).

¹⁰⁶ See “History & Legacy.”

¹⁰⁷ See “Japanese Canadian.”

¹⁰⁸ This photo, dated 1923, is credited to Dominion Photo Co.

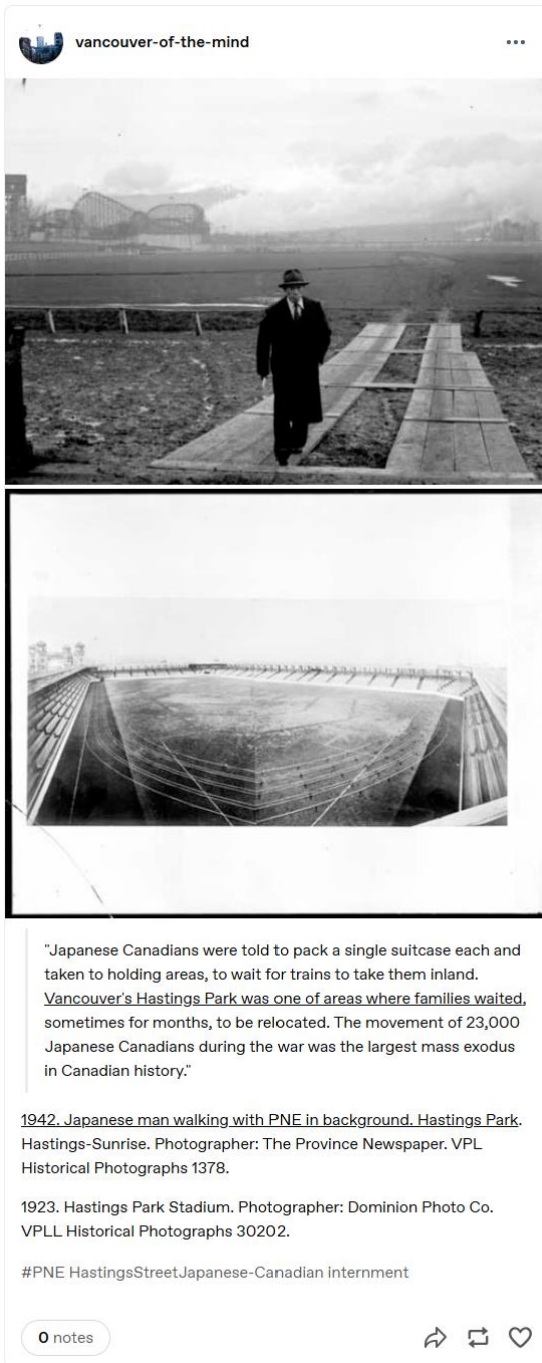


Fig. 10. Screenshot from *Vancouver of the Mind*.

Thien's use of photographs to document the displacements and appropriations that have occurred along the Hastings corridor seems to present a possible answer to Beauregard's question about how to adequately engage with representations of difficult histories and contexts,

both past and ongoing (173). What formal, textual, and imagistic means can be used to examine instances of forced removal and dispossession arising from racist ideology or voracious capitalism? How can art and literature picture the gaps, absences, and vacancies that result from the displacements that have occurred along Hastings Street? In *Vancouver of the Mind*, Thien proposes an approach to historic and ongoing spatial injustices such as dispossession and displacement that is multimodal and multi-perspectival, one that invites collaboration, licenses the fragmentary, and enables a compositional strategy concerned with dissolution and disintegration.

Thien's Contextual Corollaries

This approach to narrative structure is evident not only in *Vancouver of the Mind* and certain of Thien's novels, such as *Dogs at the Perimeter* and *Certainty*; it is also evident in Thien's works that are less studied, not yet critically studied, or not formally published. One compelling example is Thien's "seed text" *LETTERING*, which is discussed briefly in the introduction to this thesis and which Thien produced as writing fodder for the Thursdays Writing Collective (TWC), a free, weekly drop-in creative writing workshop held from 2008 to 2018 at the Carnegie Community Centre in Vancouver's Downtown Eastside. *LETTERING* is a hand-made physical book composed overtly and entirely of ephemera (TWC). Thien has said that *LETTERING* constituted "an attempt to write a letter to her deceased mother" (TWC), and it is interesting that she makes this attempt by way of the ephemeral and the fragmentary: in pairing the physical and the ephemeral in the form of *LETTERING*, Thien points readers to the conflicted nature of both materiality itself and our conceptions of it—its ability both to endure and to degrade. Postmodernism uses the fragmentary (narrative, structural, temporal) to emphasize continuity and connection rather than disunity, and Thien's "letter to her deceased

mother” participates in this postmodernist project, suturing the fragments, across time and space, in order to establish connection and construct a conduit for communication, however one-sided that communication is. She uses the fragmentary differently in *VM*, however, leaving loose edges which the forces of digital degeneration further fray. In considering the fragmentary in my reading of *VM*, I contend that engagement with the ephemeral and the partial can help develop productive attentional modes for considering our current, troubled relations with materiality and its implications for both humans and nonhumans. This application of the fragmentary is a call to step back and apprehend the whole system, not for the purpose of identifying or imposing unity or coherence, but in order to build the relational thinking and observational tools that can help us find a way forward.

On the Thursdays Writing Collective website, *LETTERING* is pictured alongside a short personal essay of Thien’s entitled “The Room at the Turn of the Corner,” which stages a meeting between Thien and her deceased mother years after her mother’s death. In this meeting, the two women talk, sitting on the edge of the mother’s bed in the house where Thien grew up. She writes that “[e]verything in [her] mother’s bedroom... was achingly familiar” (“Room” n.p.), but that the room itself “no longer exists,” or at least not in the form Thien remembers it, since, when her mother died, the house was sold and its contents disposed of. The “achingly familiar” objects, so unified and coherent in Thien’s memory (and in her fantasy/essay), are gone, but in the world of the fantasy meeting that the essay stages, these items are reunited with one another and with Thien, contextualized once again by the mother, rendered legible by Thien’s memory. The reassembly Thien stages is, however, only partial, and is dependent for its relative coherence on omissions and silences. That which is left unspoken between mother and daughter creates a protective barrier around the meeting itself. Although there are things that she wants to tell her

mother, and that she wants her mother to tell her, the gaps in their conversation seem requisite to the prolongation of the meeting. Thien writes, “I wanted to tell her all the stories I had saved up, ... how deeply I had longed for her[, and] I wanted my mother to tell me about her existence” (n.p.). Despite these desires, and although the two women *do* speak, Thien describes their “contemplative silence” and the way the things they leave unspoken “gr[o]w high around [them], solidifying like the walls of a house, sheltering the objects [Thien] could not let go of, this dress, this room, the familiar and the beloved” (n.p.). The silence in their exchange, the things they leave unsaid despite a wish to hear and tell, enables Thien’s continued ability textually to imagine the reassembled whole of her mother and the objects and setting associated with her. By reassembling the fragments drawn from Thien’s memory and personal history, “The Room at the Turn of the Corner” stages the re-composition of the whole while foregrounding the ephemerality and partiality of that re-composition.

Elsewhere in her formally unpublished or critically unstudied work, too, Thien summons back these items and the spaces that housed them, and recalls the sensory experience of being among them, saying, “I remember how it feels to be at home in a place, to be among the landmarks of childhood that are engraved in my memory” (“But I Dream in Canadian” n.p.).¹⁰⁹ In these works, Thien plays with both dispersal and coherence, with the transient and the indelible: the objects and places of her childhood are both irretrievable *and* firmly located, both physically lost to her and “engraved” in her memory. These examples from Thien’s formally unpublished or unstudied works, and those examples offered by Beauregard, Y-Dang Troeung, and others from Thien’s longer, more canonical works, demonstrate that for Thien the inclination toward de-composition and the fragmentary is twofold: in her writing, she both dismantles *and*

¹⁰⁹ The essay “But I Dream in Canadian” appears on a website Thien built to accompany the publication of her book *Dogs at the Perimeter* (2011).

reassembles the whole, effecting an obligation to look, to apprehend the reassembled composite of lost, destroyed, or otherwise dispersed fragments *and* building gaps and absences into the work that invite the reader to step back to apprehend the whole. For Thien, the act of writing is one of “mak[ing] life cohere... by gathering the detritus of our slipshod world,” and, in doing so, she assembles a structure in which “all things sit, sometimes peaceably, sometimes uncomfortably, shoulder to shoulder,”¹¹⁰ but which always already anticipates its own dissolution. Like *Vancouver of the Mind*, these formally unpublished or critically unstudied works present what Lisa Robertson calls a snapshot, “an image of time” composed by way of “accretion, exchange, application, erasure, renovation, and decay” (204)—structures that delight in their composition and willingly—even gladly—give way to the process of decomposition.

In attending here to the partial and the fragmentary in Thien’s work, and to her apparent abiding interest in their structural and thematic affordances, I read *Vancouver of the Mind* as a living document: an assembly of “loosely and unevenly collected” parts that together represent an evolving archive (Levine 17). Extending the existing critical inquiry into Thien’s use of the fragment enables a better view of *VM*’s complex, shifting structure. It foregrounds the way the project rejects an overt formal or narrative linearity and instead assembles a composite of generically disparate pieces, producing a digital ecology that is no less lively for being in the process of degeneration. As a living archive, *VM* draws the reader in an embodied and located way into the multi-sensory, multi-historical, multi-layered character of the urban space the work depicts and pushes the reader to confront the complexities of that place. As I have so far suggested, the project’s functional degeneration and mutability can be read as structural analogues to the social, spatial, and temporal mutations that have occurred and continue to occur

¹¹⁰ “My Mother’s Dresses,” which appears on a website Thien built to accompany the publication of her book *Dogs at the Perimeter* (2011).

along Hastings Street, and Thien's approach to this urban corridor invites readers into a more located and informed engagement with the place represented than could an aesthetically tidy and simple representation of that space.

In her description of the project, Thien notes that her work to constellate such a generically varied range of elements allows her to consider the "continuities [and] ruptures" contained by the Hastings corridor and the works of the artists and writers who have addressed it ("About"). This description itself grapples with the discontinuous and the fragmentary and points to the challenge of how to render—and read as—unified a work composed of fragments. In *Vancouver of the Mind*, Thien integrates a textual fragment of George Stanley's *Vancouver: A Poem* (2008), which reads as a journal entry that appears to consider how the project should be structured. This excerpt reads,

So a catalogue of moments, glimpses — no, just a disconnected (I imagine a poem about Vancouver in which Vancouver never appears — no, I mean glimpses — Vancouver only in the mind of — trying to let it be, thinking that if (& what about — the subject position? That revealed coyly, or just blurted out). (*VM*)

In both its grammar and its content, this excerpt of Stanley's poem underscores Thien's interest in composition and degeneration: it reads as one would expect Thien's mother's "files and papers" to read if they were laid out and deciphered after being "crushed and shredded" at the recycling depot ("Room" n.p.). Stanley's passage employs the coordinating conjunction "so" to indicate the continuation of a previous, interrupted, thought, and it uses punctuation marks—em-dashes, commas, and both single and paired parentheses—to convey a discontinuous, nonlinear thought process. These grammatical ruptures reinforce *VM*'s attention to the partial and the fragmentary, and Thien's project takes on the appearance of a kind of living document, or, in

Thien's words, "a work in progress": a moving, changing aggregate of disparate parts that nonetheless cohere as a system, even as that system continues to (d)evolve ("Home"). The work's appearance as a living document is in part due to its invitation to readers and community members to submit questionnaire responses, to its invitation to readers to "walk chronologically through the site," and to Thien's claim that "a map [of the work] is in progress" ("Home").¹¹¹ These features, in addition to those more properly attributed to the software of the work itself, such as the "Submit a Post" and "Ask Me Anything" functions, speak to the interactive character of the project and its evolving, generative capacity. However, in considering *VM* as a living, changing document, I want to keep in view the part of living that is the process of decay, and in *VM* we see evidence that the work is falling into a kind of ruin and becoming a structural vestige of itself. I want to emphasize here that I am by no means attaching negative connotations to the words "ruin" and "decay"; instead, I use these terms to call attention to the aliveness of the work, to the unintended forms of vitality that emanate from it, to not only its *propensity* to mutate but the *inevitability* that it will do so, and, even, to the kind of beauty¹¹² that emanates from this process of degeneration. The odd appeal here is perhaps due to the unexpectedness of what emanates. It is, perhaps, akin to what Anna Lowenhaupt Tsing calls "comb[ing] through the mess of existing worlds-in-the-making, looking for treasures—each distinctive and unlikely to be found again, at least in that form" (*Mushroom* 255).

I will return in a moment to the idea of ruination; first, however, I will contextualize that discussion by outlining the connection I see between beauty and the process of decay, and point to the theorists who have shaped my thinking about this connection. First, Jane Bennett, whose

¹¹¹ And thus available to facilitate readers' participation in/engagement with the project.

¹¹² Tim Edensor documents the unsettling form of beauty that can emanate from the "unexpected material arrangements" of an industrial ruin ("Waste Matter" 320). The works of Edward Burtynsky, too, convey the unexpected aesthetic appeal of industrial sites and the byproducts produced therein.

notion of “vibrant matter” proposes that not only does living matter possess vitality but so too does “non-organic or dead” matter, and that those forms of matter, too, can exert a creative force upon the world, “manifest[ing] traces of independence or aliveness, outside our own experience” (Bennett xvii). What I above call “beauty” is for Bennett something similar but which she describes differently: for her, a mundane scattering of debris on the sidewalk forms a “tableau [that] shimmer[s] and spark[s],” catching the light, projecting an “energetic vitality,” and “provok[ing] affect” in the viewer (5). Bennett’s description of the assortment of objects she apprehends calls to mind the way one might describe a work of art on display, emphasizing its interaction with light, the movement expressed by its lines and forms, and the effect it has on the viewer. The objects Bennett observes—a plastic glove, a mat of pollen, a dead rat, a bottle cap, and a wooden stick—are mundane and commonplace but also possess a striking and “impossible singularity”: “*that rat, that configuration of pollen, that otherwise utterly banal, mass-produced plastic water bottle cap*” (4, emphasis original). Bennett’s experience of apprehending this simultaneously ordinary and singular assortment of objects rings of the experience one has in visiting a museum: *that ceramic shard, that bison vertebra, that bronze breastplate*. Banal in their expression of the daily life that in their original contexts they served, they are nonetheless singular in their current status as artifacts on display: plinthed, encased, classified, preserved, but, like Bennett’s objects, arranged spatially in such a way that emphasizes their relation to one another, that lifts them out of the commonplace and renders them striking, potent, and noteworthy.

Bennett’s treatment of material assemblages separately from their human contexts has been critiqued on several counts: first, for its failure to adequately acknowledge the direct relationship between ecological damage and the human desires and impulses driving its cause, consumer

capitalism (see, for instance, Tischleder and Wasserman, and Alfred Lopez). Bennett's work has also been critiqued for neglecting to acknowledge the "concrete yet complex materiality of bodies immersed in social relations of power" (Rosi Braidotti and Simon Bignall) and thus relegating the "raced enfleshed human subject" to somewhere outside the bounds of new materialism (Alfred Lopez 372). Additionally, new materialism (and Bennett, implicitly) has been critiqued for excluding and occluding Indigenous scholarship and knowledges (see, for instance, Jacquelyne Kibler; Zoe Todd). These critiques raise important questions, and of particular urgency to my discussion here are concerns about new materialism's post-humanist drive to excise the human from its central ontological position, implicitly excusing our responsibility for the consequences of relentless capitalism. Applied to the present discussion, excising the human results in an incomplete representation that obscures important context and levels of responsibility.

The second theorist who has influenced my reading of decay and beauty's connection to it is Tim Edensor, whose work on industrial ruins argues that "ruinous processes change the form and texture of objects, eroding their assigned functions and meanings (318), and that

[a]s things decay they lose their status as separate objects, fragmenting and dissolving as discrete entities, giving up their solidity and form, yielding to the processes which reveal them as aggregations of matter. ... [Thus,] this erosion of singularity through which the object becomes 'un-manufactured' remembers the process by which it was assembled. (320)

In their decay, then, objects undergo an active process, one that, in displaying the parts of which the object is composed, recalls the thing's construction—an undoing that is no less lively or material than its reverse, original, action. Edensor is quick to note, however, the aesthetic quality

attached to such mutations: ruins, he writes, “can resonate with a powerful beauty that makes them seem akin to sculptures... [and] these ‘sculptural’ objects are born out of the violence of collapse, the effects of decay, and the effects of mingling/hybridization” (321). Edensor’s reading of material decay aligns with Bennett’s in its emphasis on the aesthetic qualities of objects undergoing that process, and together these thinkers help propel my consideration of *Vancouver of the Mind* as itself undergoing a process of degeneration that underscores the vitality of the work, the parts of which it is composed, and the beauty emanating from its gradual undoing.

The decay occurring in *Vancouver of the Mind* is not characterized by the violent collapse that Edensor describes; instead, it represents a gradual unraveling, a process by which the work slowly surrenders its formal coherence. Some might question my treatment of Thien’s digital project as material “enough” to warrant an examination of its decomposition—or even as material at all. There exists, after all, a persistent, generalized sense that the digital is somehow *immaterial*, a sense that Stephanie Posthumus and Stéfán Sinclair observe when they write that digital reading environments are easily perceived as abstract and virtual because of “an apparent disappearance of materiality, substance, and human intelligibility” in digital text (257).

However, scholars of digital media (for example, Jussi Parikka; Richard Maxwell and Toby Miller; Nicole Starosielski and Janet Walker) have already established that such media are anything but immaterial. These scholars have noted, for instance, the “massive amount of energy drawn and expended to power media systems, the extraction of materials to construct media technologies, and the toxicities of [media] use and disposal” (Starosielski and Walker 3). Elsewhere, Starosielski has argued that, in contrast to the “popular imagination of [the digital as characterized by] wirelessness and dematerialization[,] ... today’s digital circulations ... are

firmly tethered to the earth, anchored in a grid of material and cultural coordinates” (2, 13). For their part, Posthumus and Sinclair emphasize less the raw materiality and terrestrial embeddedness of digital technologies and more the embodied interaction they afford when they query “what we can *do* in ... digital environments” (258, emphasis added). They emphasize readers’ active engagement in and with the digital reading environment when they argue that “[r]eading is an embodied activity, regardless of the medium,” and that digital reading environments¹¹³ invite particular embodied interactions with the text, such as annotation, searching, comparison, referencing, sampling, and illustration—in other words, “resources and functionalities beyond the text” that highlight the multiple physical interactions made possible by the digital medium (258). Lissa Holloway-Attaway, too, emphasizes the degree to which digital environments afford embodied interactivity when she argues that new media ecologies “have become more than surfaces for writing reality and are now complex mediated life worlds where inscription is no longer a metaphorical practice but an act of... self/real-world environmental coupling” (para. 4). It is compelling to consider Thien’s project as facilitating a kind of embodied partnership between the reader and the digital reading environment: readers’ contributions to and movements through the work, combined with the interactive functions and features embedded within the publishing software itself (such as Tumblr), make for a distinctly material project that is both interactive and continually in flux.

¹¹³ Posthumus and Sinclair use this term to illustrate the contrast between reading a print text and reading digitally: they write that while “a reader and an analog text can be mediated by a print page in a fairly simple system, ... the entire infrastructure needed for a reader to access a digital text and any additional functionality is evocative of [the] larger system [of a] reading environment” (258).

Digital Degeneration

Considering the project's materiality, then, both in terms of the embodied interactions it provokes and the materials and infrastructures by which it operates, I will now bring together the threads of my discussion so far in order to examine the specific ways decay manifests in *Vancouver of the Mind*. Specifically, in the pages that follow, I will examine the effects of digital degeneration on the project, to articulate how that decay underscores Thien's concern with gaps, absences, and the partial, and to consider how these formal and structural elements help us think about Hastings Street's historic and ongoing displacements and dispossessions. It seems significant that, at the time of this writing, it has been nearly a decade since Thien created *Vancouver of the Mind*, and in the years since its inception, Thien could at any time have deleted the project. However, it remains active, continuing to invite readers' contributions, which, in recent years, do not appear to have been made, or, if they have been made, have not been added to the site. However, while changes to the project have not recently been attributable to contributors (despite the work's ongoing call for readers to submit questionnaire responses), *Vancouver of the Mind* continues to mutate, to change in ways that are instead attributable to the process of degeneration the work is undergoing.

Vancouver of the Mind strives (or, at one point, strove) to offer a navigational order through its parts. This intention is evident in the instructions the work gives the reader: for instance, "to step forward please click here," a note that occurs underneath each visuo-textual element of the work, and "to walk chronologically through this Tumblr, begin here," an instruction that occurs directly below the project's title at the top of the page. The aim to offer direction to the reader's movement through the project, however, was either never fully realized or was lost to its platform's progression toward obsolescence: many of the routes and features

that seem intended to enable the reader to “step forward” through the components of the project lead to parts of the work from which no continued forward motion is possible. These roadblocks are among the striking features that speak to the process of degeneration which the project is undergoing, and, in service of my reading of *VM* as a living document, I will outline these characteristics here.

Of note, first, is the work’s unstable functionality: when I view the project on my 15” laptop, I need to reduce the width of *VM*’s page to two thirds of the width of my screen in order to see in full the work’s title and Thien’s instructions on how to navigate through the project. When the page occupies more than two thirds of the screen’s width, half of the project’s title and instructions disappear, and some of the work’s individual entries jump into that space, giving *VM* a fragmented appearance and making its text illegible.¹¹⁴ If I extend the page to the maximum width of my screen, the individual entries move around to occupy the available space and the text becomes fully visible, but, when they move, the entries, comprised of text and image, leave behind a remainder in the form of thin slices of the image and text that had previously occupied that space. The effect is akin to moving paintings on a wall but leaving the frames, or parts of them, in their original locations. By contrast, *VM*’s appearance on my smartphone is more linear and predictable: the title of the project and Thien’s instructions are entirely visible at the top, and its individual entries appear chronologically when once scrolls down through the work. Viewing the project this way, however, does not allow one the broader, more varied view that a larger screen does (or is meant to), and limits the reader to viewing one entry at a time, or even just one *part* of one entry at a time, rather than enabling one to view the title, Thien’s instructions, and

¹¹⁴ Granted, websites can differ in appearance from one device to another; however, design principles in recent years have evolved to address these differences and render the reading/viewing experience of as uniform as possible. *Vancouver of the Mind* and Tumblr do not appear to have adapted thus.

the individual entries, including their associated images, in their entirety. It is interesting to consider these functional idiosyncrasies and the ways they transfer or resist transference across devices because, when read as expressions of degeneration, these functional lapses highlight the project's status as a relic of itself and point to its persistent mutability and the ruinous processes it is continuously undergoing.

In very recent years, Tumblr, the platform which hosts *Vancouver of the Mind*, has become known in popular and scholarly media as “a relic of the Internet” (Chayka n.p.), and there has been a flurry of debate about the platform, with arguments for both its obsolescence and its continued relevance.¹¹⁵ Designed as “a platform for *creators*” (McCracken et al. 3, emphasis added), Tumblr was envisioned at its inception in 2007 as “a digital public scrapbook that users collectively create and curate” (McCracken et al. 5). It became known for enabling a “multimedia flexibility” that distinguished it from other platforms popular at the time (McCracken et al. 4). As such, it acquired a reputation for being what McCracken et al. describe as a “subcultural, countercultural place where alternative pleasures, education[,] resource sharing, [and] creative and critical work happened” (3). These features and functions contribute to the platform's reputation for having a “more open-ended” format (Chayka) and a “more progressive legacy” (Métraux) than those of other social network platforms. Tumblr has, however, also been critiqued for its “fail[ure] to modernize” (de Luna n.p.) and its “nonintuitive, or even sometimes faulty navigation, search, and index features” (McCracken et al. 2). Tumblr's functional oddities, McCracken et al. suggest, have “created a barrier to entry for uninvested outsiders” (2), a barrier which has contributed to Tumblr's status as a niche platform for users who want “more creative agency, and a more egalitarian, nonhierarchical, uncensored media

¹¹⁵ In addition to Kyle Chayka's article, see, for instance, Elizabeth de Luna, Allison Maura McCracken, et al, and Julia Métraux.

environment” (McCracken et al. 5). Given the platform’s outdated functionality (its “failure to modernize”) and perceived open-endedness, it is not surprising that the functionality of *VM* itself has become disjointed and erratic—in other words, lively. In the almost-ten years since its last update, *VM*’s original form has unraveled, leaving a new network of functions and forms in its place.

The second characteristic that speaks to *VM*’s decay is the proliferation of broken links housed within it, a feature that effects for the reader the sensation of following the instructions of a faulty GPS or an outdated map. Miller and Garcia write that “broken links show the fragility of [digital] constructions” (173-4), and I add that these fractures emphasize the way the work is in-progress, that is it *taking shape*, even as it comes undone. One broken link in the work purports to lead to “Fred Herzog’s Equinox Gallery” exhibit, but instead leads to a “Page Not Found” banner on the gallery’s website. Another example is the hyperlink embedded in the caption of the photograph of a man walking across Hastings Park. The caption to this second photograph indicates that the source record is located in the Vancouver Public Library’s archive of historical photographs, but instead of leading to that source, the link leads to a notice that “Your current query has expired.”¹¹⁶ Elsewhere, at the time of this writing, links lead, among other places, to an error page on a Government of Canada website,¹¹⁷ a “Domain Not Claimed” banner on a page that once belonged to a now-defunct publication,¹¹⁸ and a “Legacy” redirect banner for an

¹¹⁶ This is so even though the photograph can be located by searching the VPL’s historical photographs.

¹¹⁷ This result occurs when one clicks the hyperlink in the caption under the photograph of “Sikh mill workers in Vancouver” in 1905. The caption reads: “The first immigrants from India came to Vancouver and Victoria in 1904.”

¹¹⁸ For example, one page announces itself as “mapped to Squarespace [but] not yet claimed by a website.” This page’s address bar, however, still displays the site’s original URL, regardingplace.com, which a quick Google search tells me is a defunct online magazine that now yields Internet mentions only in the CVs of artist-designers Matthew Biederman and Carolyn Toth.

obsolete mapping tool.¹¹⁹ These broken links are shadows of the work's former structure and functionality. They reveal the project's disjointedness, emphasize its mutability, and locate the reader in an ecosystem of shifting, changing, deteriorating parts.¹²⁰ Last updated in 2014, *VM* now looks and functions differently from the way it did in its original form. I maintain, however, that, instead of rendering the work obsolete or decrepit, the project's progressively altered functionality represents a form of liveliness that opens the work to new readings and modes of readerly interaction. The project's lively decay recalls the kind of *jouissance* and exuberant potential expressed by Gilles Deleuze and Félix Guattari's repeated conjunction "and... and... and..." (*A Thousand Plateaus* 27): this exuberance represents the continual formation and re-formation of a network of possibilities, a continually changing set of forms and the concomitant resetting of their individual and collective affordances. In my reading of *VM*, the process of decay is *not* indicative of waste or expiration, but, rather, like Bennett's shimmering "tableau" or Robert Sullivan's potent "espresso of refuse,"¹²¹ decay and degeneration in Thien's project mark the evolution of form, one in which the latest incarnation is no less vital or interesting than its antecedent.

The liveliness of decay has been observed in the context of architectural ruins. In his work on industrial ruins, for instance, Tim Edensor notes the defamiliarized landscape produced

¹¹⁹ This result occurs when one clicks on the hyperlink to "TileMill," a map building software Thien says she used to create her first maps of Vancouver. Perhaps worth noting: When I first began thinking about *VM*, this particular link still led successfully to a functioning map making software application.

¹²⁰ This is interesting to note that these dead ends, or dead zones, are often nonspecific—ex. "Gov of Canada" rather than some specific agency—and seem to represent a generic hauntedness of the Internet—these spaces were at one time in use, but have since fallen into obsolescence and become spectres of their former selves. They are hollow spaces, placeholders that only serve to tell us that something is missing, absent. It is only when one arrives there via one of *VM*'s dead links that one can decipher a general version of their former use (ex. This was once a Vancouver Archives space, or This was once a government website.).

¹²¹ This quotation comes from Sullivan's *Meadowlands: Wilderness Adventures at the Edge of a City* (qtd. in Bennett 6).

by the process of structural ruination. The landscape Edensor describes is one whose forms and functions differ dramatically from those of their antecedents, but whose vibrancy remains:

[T]he building regresses to a state which recalls its own construction. [Its] guts spill out.

The pipes, wiring and tubes spring out from their confinement behind walls and under floors and skeletal girders and joists emerge as plaster and wood rots and peels off.

Drainage channels and ventilation shafts appear, and phone lines and electricity wires break out from their imprisonment, often in seemingly exuberant display. Catalyzed by contact with moisture, temperatures, and non-human life, the latent energies within matter are expended in this escape... Tiles slip their moorings, glass shatters and disperses shards, mortar and bricks crumble and shed dust, plaster cracks and disintegrates, ... paint blisters and peels in ornate fashion.... Receptacles of all sorts erode and discharge their contents, and nesting material, droppings and a wealth of fungal and botanical life joins the rich stew of debris, increasingly an amalgam of indistinguishable animal, vegetable, and mineral substances, of dead and living things... (318-9)

This “rich stew” is teeming with vital matter, both biological and nonbiological, and Edensor’s description of it highlights the lively hybridization that results from the process of degeneration. Ruination enables the reconceptualization of architectural structures, enables their meanings and utilities to be newly constructed and perceived, this time as unpredictable, erratic, and non-normative. New associations are made between parts, or the conventional formal and functional associations between those parts are severed or made tenuous. Edensor writes that “the montages of objects and other scraps found in ruins are not deliberately organized assemblies devised to strike chords and meanings through associations, but are fortuitous combinations which interrupt normative meanings” (“Waste Matter” 323). This reconceptualization recalls Bennett’s glove,

pollen, rat, cap, and stick: an “assemblage [of] vivid entities,” which cohere to form a new set of meanings, associations, and potentialities (5). It also recalls Levine’s privileging of a “makeshift, pasted-together” order over a coherent system (17). In the context of industrial ruins, then, degeneration and decay signal not finality or obsolescence but revision and renewal.

In their study of abandoned *virtual* spaces, Vincent Miller and Gonzalo Garcia draw a link between architectural and digital ruins, but their view of the process and product of degeneration differs from Edensor’s: for Miller and Garcia, the process of degeneration is much less fruitful and its product much less lively than it is for Edensor. Miller and Garcia write that digital ruins provide “interesting phenomenological and analytical contrasts to contemporary material ruinscapes,” but that they also share with material ruins the defining quality of being “*spaces of disconnection*” (165, emphasis original). Miller and Garcia’s focus, then, is on the discontinuities that result from the process of ruination, rather than on the reconfiguration of connections that occurs when, to use Edensor’s term, the “montages” are reassembled (323). For Miller and Garcia, the process of ruination results in an *absence*, a void of meaning or purpose, which takes the place of the original formal and functional features of the space. However, Miller and Garcia qualify their assessment of what remains in ruined spaces by locating the reader/viewer *in* such landscapes and observing the “affective, embodied experience” the subject has when traversing ruins—physical or digital (167). In this view, the human subject occupies the space of the ruin and becomes implicated in the revision of its meanings. Further, ruined digital spaces reflect the social and perceptual changes of the human subject who traverses them: Miller and Garcia write,

these abandoned virtual worlds demonstrate ... a particular kind of temporal stasis. ...

Outside the abandoned world, time marches on, and what constitutes virtual connections

keeps changing. Software changes too; aesthetic tastes and styles change; [users'] expectations of, for example, interface quality, speed, or game playability change. Links to external websites are broken, literally and absolutely disconnected, when those websites disappear. Even legal regulation changes. Digital ruins are a kind of time capsule which demonstrate not how much they have aged, but how much *we* have. (168, emphasis added)

For Miller and Garcia, what is most striking is these spaces' preservation, and the way their continued existence highlights a disjuncture between current technological, aesthetic, or social trends and the static, singular historical snapshot the digital works exhibit.

In addition to Miller and Garcia, others also grapple with the contradictions embedded in ruins. Svetlana Boym, for instance, observes that ruins both illustrate a “vanishing materiality” and house “remainders and reminders” of what was (43). Ruins, she writes, “make us think about... a future that never took place” (43) and underscore the “improvisational quality” of the shifting landscape (45). For me, what is most compelling about this debate, and what I take from it to my analysis of *Vancouver of the Mind*, is how ruins represent not only the past but a future—or futures—alternate to the one intended during the material or digital structure's design and early existence. I am compelled by the open-endedness and possibilities afforded by a degenerating structure, and I suggest that the futures made possible by the process of ruination, though unknowable from our current perspective, are no less vital or vibrant when they arrive than those imagined for the structure's original form. In constant flux and *never finished*, ruination affords possibilities that recall the hybridization and excess of Deleuze and Guattari's “and... and... and” (27) and claims indeterminacy, multiplicity, and difference as its defining characteristics. I approach ruins as *no less lively* than the more coherent, intentional structures

from which they evolved, and read them not only for their failures of function, but also for the ways they play host to the unintended and the alternate: Edensor's "rich stew" and Boym's "remainders" apply also to digital decay and articulate a way of thinking about such structures as lively amalgams or communities of the inadvertent. In Thien's words, they are "alive, ... not broken," vital for their very changeability and degeneration.¹²²

My reading of digital ruins recalls Simmel's defence of ruination as a productive, rather than reductive, process. Simmel writes that the "brute, downward-dragging, corroding, crumbling power of nature" does not convert a structure into "the formlessness of mere matter," but instead produces a new form, which is "entirely meaningful, comprehensible, differentiated" (381). As *Vancouver of the Mind* undergoes its formal and functional degeneration, it evolves into alternate versions of itself whose forms are both impossible to predict and no less interesting or vibrant than their antecedents. The work also reminds readers of its (and their) susceptibility to the forces of time, as it both stretches back and extends forward temporally. Boym attributes the dual-directionality of ruins to "the pace of modern time," which, she writes, "precipitates both construction and destruction," and thereby positions ruins as "a spatial and temporal extension into [both] the past and the future" (44- 45). In this way, the digital ruin acts as a "hinge" connecting temporalities (Levine 113), on one hand recalling for us our historical aesthetic and technological sensibilities, while on the other hand prefiguring the alterations to form and function the work's continued deterioration will enact. The project's "acts of

¹²² This is how James, a character in *Dogs at the Perimeter*, experiences the feeling of being pummelled by waves when swimming off the shores of Vancouver (191). The narrator says, "He loved the ocean no matter how desperately cold it was. He'd bought a wetsuit, a used one (he'd had no money for a new one) because he was addicted to the fury of the tide. Those currents knocked him back, they overpowered him, and yet he felt alive, not fragmented, not broken" (191).

rearrangement” resist the strictures of formal coherence and foreground instead the kind of liveliness produced in, around, and by loose and disjointed elements (Levine 18).

The productive impediments and inversions afforded by the process of ruination are in evidence also in *Vancouver of the Mind*, in Thien’s other works, and the work of other contemporaneous Vancouver writers who participate in the broader project of place-based writing. In *Vancouver Walking*, Meredith Quartermain’s “walking” through Vancouver neighbourhoods, some of which Ben Hickman notes represent “singularly inhospitable walking territory” and cause us to be “disoriented by traffic” (85), parallels Thien’s chronological “walk,” which offers—but does not provide—“a map,” and is in this way equally “disorienting.” Both Quartermain and Thien want the reader to be located in the streetscape, to be *emplaced*: for Quartermain, as Hickman notes, “the poem’s walk is wilfully [sic] unpleasant and endured to provide the city with a duration of thought it would not otherwise receive, of which the ‘steady roar of traffic rushing toward town’ is the constant counterpoint. Quartermain refuses to merely block out this traffic” (85). For Thien, the “walk” becomes difficult with the work’s formal and functional breakdown. Outdated maps, dead links, obsolete software, visual impediments: *VM* very often presents readers with textual, imagistic, and functional routes and avenues that offer only obstacles, rather than a way through or into the work. Like Quartermain’s landscape, which Hickman argues “is subject to revelation but not penetration” (86), Thien’s cityscape is rife with impediments and keeps readers moving from node to node (or element to element) without offering them a concrete place to land or a clear, direct point of entry.

While Thien is clearly concerned with locating the reader in the spatial specificity of the Hastings corridor, this locatedness is qualified and complicated by the formal and functional ways the project keeps readers moving. In other works, Thien queries the possibility of

locatedness when she asks, “Can we shake loose the idea of home or the longing for it?” (“Where Do We Belong?”). In this question, the unsettled *home*—both as a physical location and as an idea—recalls Thien’s staged meeting with her deceased mother in Thien’s childhood home, where “[e]verything ... was achingly familiar” but “no longer exists” (“Room” n.p.). In both *VM* and elsewhere in Thien’s critically unstudied works, it is evident that she is grappling more broadly with the possibility of home and the tension between location and dislocation. During her visit with her deceased mother in her childhood home, Thien notes,

I understood that if I went outside the bedroom, if I tried to find the kitchen, I might be disappointed. I could not remember how I had entered this room, whether through the window or the door, or some other means. I did not know how this room attached to all the others through which I had passed, all my life, whether they were joined like the ribs of a skeleton or whether they floated in space. (“Room” n.p.)

Here, the indistinctness and instability of home recall the disorientation one feels navigating the inverted chronology and irregular functionality of *Vancouver of the Mind*. The reader’s nonlinear progression through *VM*, like Thien’s visit with her long-deceased mother, is not what was originally possible or intended, but is what the reconfiguration of elements enables. Like ruins, *VM*’s inverted chronology in “Room”—as in *Vancouver of the Mind*—enables the (re)imagining of alternate futures and outcomes. In Thien’s various troublings of home—those in which home is “shak[en] loose,” “sold,” or “no longer exist[s]” *and* those in which an inverted chronology makes reaching or finding “home” difficult—the resulting dislocation produces a lively reconfiguration of elements that enables alternate outcomes and lively, unintended “tableaus” (Bennett 5).

In her contribution to the anthology *V6A: Writing from Vancouver's Downtown Eastside* (2012), Thien again reflects on the tension inherent to “home” both as a physical place and as a concept. Describing a visit, years after her mother’s death, to the neighbourhood bordering Hastings Street where she grew up, Thien writes,

I want to tell my mother that I have been back to the old playground, that the schoolyard is empty and the building abandoned. Two months ago, I returned to the apartment where we used to live, the one from which my father fled. It was the first time I had returned to Vancouver in five years. Amidst the rusting banisters and yellowed curtains, I thought I could see her a little more clearly. Versions of her, of us, had taken our places, living in the cramped rooms, imagining better days. (“The Fire Before” 31)

There is an expression of longing here—for her mother, certainly, but also for interconnection between the past and the present, for the ability to invert chronology and access what is gone (“abandoned,” “crushed and shredded,” “sold”). There is also, however, a degree to which her pilgrimage to the sites of her childhood *activates* a point of access to the past: “versions” of her family now occupy the spaces her own family once did, performing a kind of revision or re-entry, starting again at the beginning, elements reconfigured and no less vital for their decayed state: their “yellowed curtains” and “rusting banisters” (“The Fire Before” 31).

Thien no longer lives in the neighbourhood of her childhood (Asfour and Gardiner 147), and she is careful to ensure that *Vancouver of the Mind* is informed not only by her own history in and memories of the place where she grew up, but also by the voices and perspectives of those current residents of the neighbourhoods bordering Hastings Street. To this end, Thien invited participants of the Thursdays Writing Collective to contribute responses to a questionnaire (see Fig. 11) about Vancouver, Hastings Street, and other, more abstract, topics, such as “character,”

“justice,” and “destiny” (*VM*). The responses, reproduced in *VM* in their original handwritten form, frame reading and writing as social and embodied acts contextualized by and rooted in the place in which they occur. The perspectives they represent are firmly located in the neighbourhoods the project addresses and demonstrate a commitment to and appreciation for a part of the city that is so often considered only in terms of the social and economic challenges that exist there. By shifting the focus this way, these responses reframe East Hastings Street as a community, as an essential part of the city, and as a neighbourhood that, by virtue of a heterogeneity for which it is not often credited, “defies categorization” (Asfour and Gardiner 7). This last reframing is particularly important because it challenges the simplistic and encompassing conception of the DTES as (and only as) “Canada’s poorest postal code” (Asfour and Gardiner 1). The question “What would Vancouver be like if there were no East Hastings?” for instance, received the replies, “There would be no Vancouver. East Hastings is the backbone of the city,” “Every city has an East Hastings. It is not possible to see Vancouver without it,” and “I think there would always be some street/community like East Hastings” (*VM*). These responses comprise an important part of *Vancouver of the Mind*: they ground the project in the perspectives of current residents of the neighbourhood and counteract outsider representations of the DTES that tend to be singularly focused on addiction and poverty. In their introduction to *V6A: Writing from Vancouver’s Downtown Eastside*, Asfour and Gardiner write that such narrowly focused representations of the neighbourhood “ignore the intangibles, those unquantifiable aspects of community” (1). They ask what these reductive representations are “trying to contain in a portrait of this community by reducing it to such a frame” (2). Thien’s inclusion of residents’ responses to questions about their neighbourhood embeds the project in the place itself, makes its residents active narrators in the work, and renders central their own

view of their community. Rather than having representation imposed upon them, in *Vancouver of the Mind* local perspectives filter and shape the way the neighbourhood is represented.

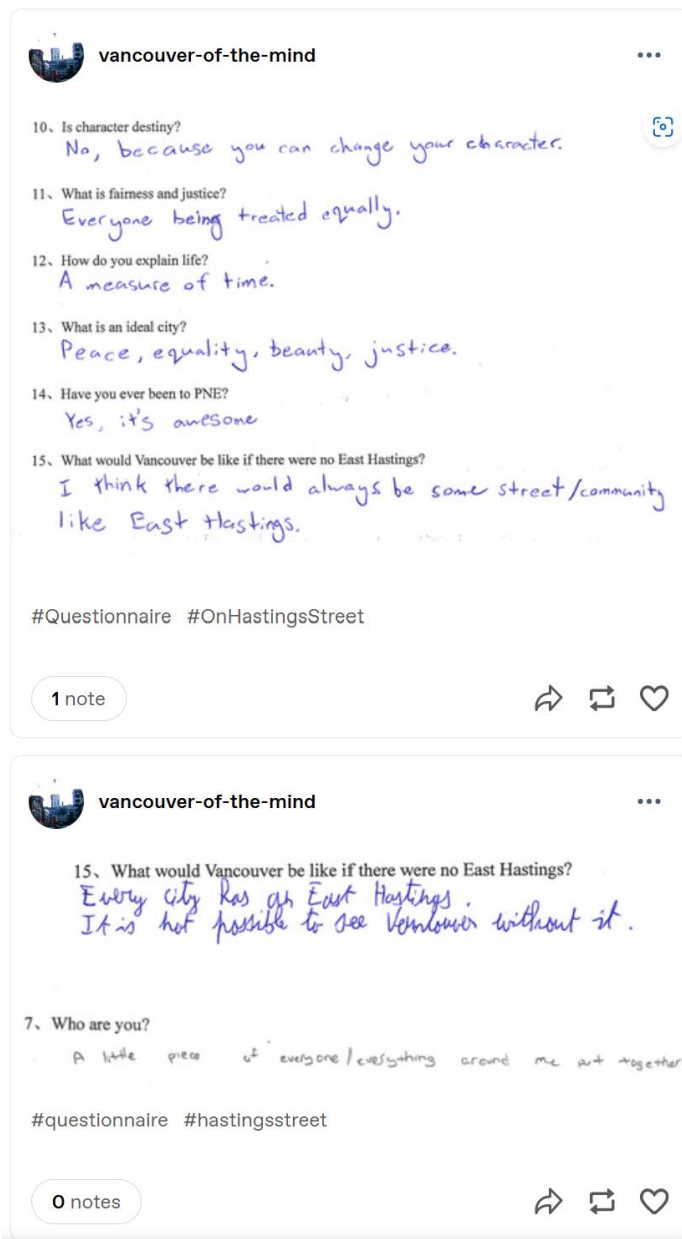


Fig. 11. Examples of handwritten questionnaire responses. Screenshot from *Vancouver of the Mind*.

However, the reframing the questionnaire responses offer is neither absolute nor straightforward. One respondent answers as follows the question “What would Vancouver be like if there were no East Hastings?”: “Then everyone would be more productive. As each person

is more productive, the real income will rise” (*VM*). Despite its muted expression, this response points to the socio-economic challenges that exist in the DTES and expresses a desire for an improved quality of life in the neighbourhood. The language by which this desire is expressed highlights the economic disparity between the Downtown Eastside and the “affluent and commercially successful” neighbourhoods adjacent to it (Moser 57). The repeated use of the word “productive” in this response also points to the ethos of relentless progress and productivity that has been credited for Vancouver’s culture of real estate speculation and land development. Melanie O’Brian writes that Vancouver has “sought (and made) its fortune through ventures that require a belief in risk and progress, such as timber, mining, fishing, gold, tourism, technology, and most characteristically, real estate and land development” (13). Trevor Barnes et al. observe that such traits have produced a city characterized first and foremost by its mutations: “[m]ore than perhaps most other Canadian urban regions, Vancouver exemplifies the city as a space of flows and recurrent restructuring rather than as a durable construct of stable industries, labour, social class, and communities” (291).

Like Thien’s *Vancouver of the Mind*, then, Vancouver itself has been characterized as a work-in-progress, “a city that grows and then tears down” (Murakami, *Rebuild* 60). Paul Stephens writes that the city of Vancouver “is a haphazard work-in-progress, built from the materials of its own past” (“Dystopia of the Obsolete” 21). Stephens points to Lisa Robertson’s symbolic portrayal of Vancouver as a shack in *Office for Soft Architecture* and to the description there of the way Vancouver’s “architectural ambitions” are facilitated by way of reuse—spatial, material, and temporal (Stephens 21). In Robertson’s *Soft Architecture*, Stephens writes,

[t]he landscape includes the material detritus of previous inhabitations and economies.

Typically the shack reuses or regroups things with humour and frugality. ... A shack

almost always reuses windows, so that looking into or out of the shack is already part of a series, or an ecology, of looking. ... The layering or abutment of historically contingent economies frames a diction or pressure that is political, political in the sense that the shack dweller is never a pure product of the independent present. (177-178)

This description recalls the tendency in Thien's work toward the composite of shifting and variable parts. It recalls the way she layers and abuts past and present and stages encounters across such divisions. Stephens argues that because of the composite that Vancouver presents, the city "cannot be reduced to a simple notion of placeness" and that its "many identities are overlaid and transient" (21, 29). This tension is one observed also in the work of Cecily Nicholson, who writes, for instance, that

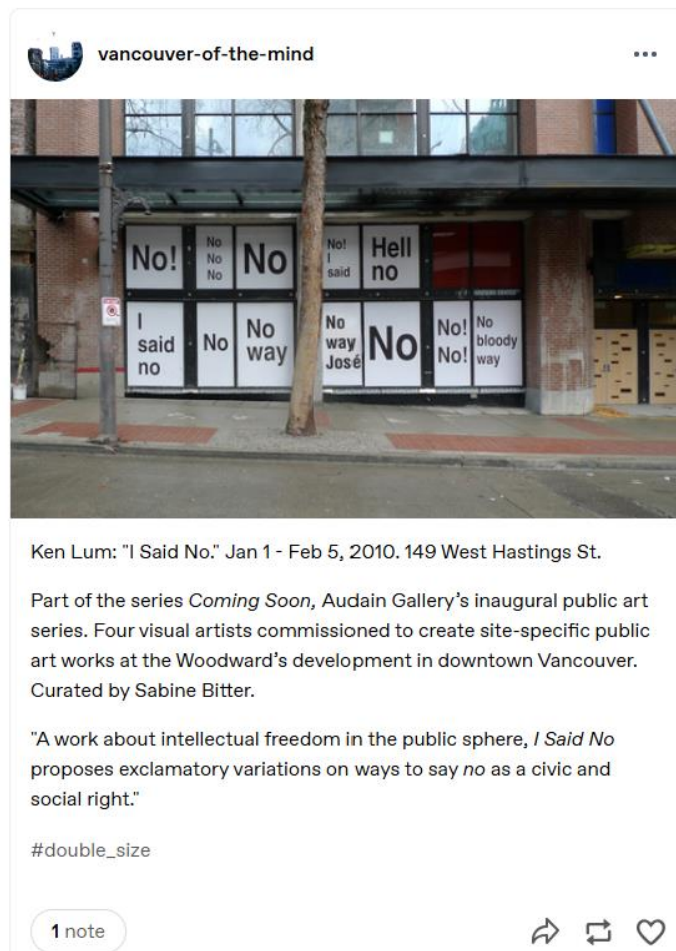
place is a while we walk on the bones of all time ...
 there is a place (built over) at the southern end of Agnes Street
 burial grounds (built over) of the present high school
being broken is a constant. (From the Poplars 11, emphasis original)

Here Nicholson's "built over" places recall the "versions" of family Thien observes when she visits the sites of her childhood. Both Thien and Nicholson emphasize the ways time continues to be layered over landscapes and the ways the current spatial field provides points of access to the past. Considering their continual restructuring, then, both *VM* and Vancouver itself present the problem of how to begin, and sustain, one's engagement with them—how to navigate through a visuo-textual or urban space when that space is under continual revision. Sachiko Murakami notes the cyclicity of urban revision and restructuring when she writes that in Vancouver, the land is "cleared where it ha[s] been / cleared before. The neighbours brace themselves for the saw, the hammer. ... / Now we may begin" ("Rebuild" 60). In *Vancouver of the Mind* and

elsewhere, Thien—like Quartermain, Nicholson, and Murakami—undermines the idea of *arrival*, of destination or culmination, and instead insists upon the partial, the processual, and the cyclical as a means of encountering and moving through the spaces of Vancouver and the literary works that represent it.

While *VM*'s questionnaire responses help build a project that represents a perspectival multiplicity, they also contribute to the generic heterogeneity of the work, adding handwritten first-person textual accounts to the ecology of materials presented in the project. *VM*'s multimediality reflects not disunity but instead a varied sensory and experiential field that participates in the discourse around Vancouver's material, historical, economic, social, and ethnic composition (see, for instance, Barnes et al.). By representing the Hastings corridor as a shifting, complex, and heterogeneous structure, *VM* resists the characterization of the Downtown Eastside as experientially, demographically, or otherwise uniform. Formally, *VM* represents the complexity of its spatial subject and avoids imposing onto it a tidy narrative or a simple, unifying aesthetic. The project's rooted perspective is complicated, however, by Thien's use of metonymy to refer to the people who live and work in the DTES. Read alongside Stan Douglas's 2001 panoramic photograph *Every Building on 100 West Hastings* (discussed in detail later in this chapter), which empties out those who normally move through the space it depicts, Thien's project appears to perform a degree of comparable scrubbing. In one example of her use of metonymy, Thien offers a photograph of the moment the Woodward's building was demolished: a snapshot of smoke, dust, and falling debris, the Vancouver skyline in the background (*VM*). In another example, Thien offers a photograph of Ken Lum's 2010 *I Said No* window exhibit at 149 West Hastings (see Fig. 12), the site of the old Woodward's department store: an exhibit "about intellectual freedom in the public sphere [that] proposes exclamatory variations on ways to

say *no* as a civic and social right” (Audain Gallery, qtd. in *VM*). The placement of Lum’s photographic installation at this specific site suggests that its work to express refusal applies to the site’s controversial redevelopment, but, since Thien provides no explicit commentary to link Lum’s work to either her own project or to the old Woodward’s site itself, this photograph, like the demolition snapshot, functions as only an oblique or implied reference to the gentrification the neighbourhood has undergone and, more specifically, the displacement of those in the DTES whose homes and livelihoods have been lost to the forces of global capitalism.¹²³



¹²³ Smith and Derksen argue that Vancouver’s turn away from resource extraction and “toward real estate and construction can be seen as a reaction to changes in the regional economy brought on by global economics” (“Urban Regeneration” 75).

Fig. 12. Ken Lum’s “I Said No.” Screenshot from *Vancouver of the Mind*. Lum’s project was part of the Audain Gallery’s public art series, *Coming Soon*, for which visual artists were commissioned to create site-specific public art works at the site of the Woodward’s development in Vancouver.

In a third example of metonymical evacuation in *Vancouver of the Mind*, Thien alludes briefly to those who live and work in the DTES when she quotes Elee Kraljii Gardiner’s observation that “a swell of activity” could be due to “shelter hours” (“Reading the City,” qtd in *VM*). Here Thien makes oblique reference to those who circulate within the cityscape she takes as her object, but the people themselves are absent, their concrete specificity—the bodily needs that would drive them to the shelter, either as recipients of the services on offer or as employees providing those services—obscured. Just as neighbourhood redevelopment¹²⁴ makes those who have lived and worked in a now-gentrifying neighbourhood less visible by compelling them to relocate in search of affordable housing,¹²⁵ this kind of metonymical reference makes it difficult to apprehend the people themselves. Neil Smith and Jeff Derksen write that redevelopment such as that which occurred at the Woodward’s site functions as

a vehicle for transforming whole areas into new landscape complexes that pioneer a comprehensive class-inflected urban remake. These new landscape complexes now integrate housing with shopping, restaurants, cultural facilities ... open space, employment opportunities—whole new complexes of recreation, consumption, production, and pleasure, as well as residence. (“Urban Regeneration” 74)

Derksen’s description of “new urban complexes” seems also to fit Vancouver Mayor Ken Sim’s intention, in spring 2023, to “restore Hastings as a street that is safe and welcoming for

¹²⁴ Smith and Derksen write that because of the class implications of “redevelopment,” “gentrification and redevelopment cannot be separated” (“Urban Regeneration” 83).

¹²⁵ But, in the DTES, this process was in some ways reversed, since people who could no longer find housing set up tents in the neighbourhood, thus becoming *more* visible, not less. In April 2023, the Vancouver Police and city staff removed the tent encampment in the DTES (see Watson).

everyone” (Bridgette Watson n.p.).¹²⁶ Indeed, at the time of this writing, businesses occupying the Woodward’s block include London Drugs, Canada Post, Nestors Market, an employment centre, an upscale clothing boutique, the SFU Goldcorp Centre for the Arts, and SFU’s Audain Gallery—services and businesses that would invite a “swell of activity” quite different from the one Thien, after Gardiner, envisioned. Furthermore, at several times the rental cost of Single Room Occupancies (SROs) in the neighbourhood, the residences now topping the Woodward’s block have rendered those low-income neighbours as peripheral as the objects of Thien’s metonymical references.

In her 2013 poetry collection *Mercenary English*, Mercedes Eng documents the changes that occur between 2007 and 2012 along a stretch of Hastings Street between Main to the East and Cambie to the West. In a series of list-poems, titled “how it is (November 2007),” “how it is (June 2009),” and “how it is (January 2012),” Eng names the businesses and vacancies along this stretch and makes visible the streetscape’s progressive gentrification. While some businesses and services remain consistent across the three lists, such as “Insite / North America’s 1st safe injection site” (102), others are replaced over the span of years the lists cover. One striking change evident in Eng’s list-poems is the proliferation of development application notices that appear in the third list (Eng 102). There are five of these notices in the one block spanning Main and Columbia alone, and these five notices, Eng’s second list tells us, replaced four “closed business[es]” and the longstanding Blue Eagle Café (Eng 102). While Eng’s three list-poems foreground businesses and vacant buildings, *Mercenary English* maintains its focus on the individuals and groups whom redevelopment affects most directly—a feature which stands in direct contrast with Douglas’s “emptying out” of the same streetscape. Eng’s three lists are

¹²⁶ See also the City of Vancouver’s “Downtown Eastside Revitalization Plan.”

interspersed with poems that reflect an embodied humanity. These poems, in the section titled “Autocartography,” feature the persona’s father and brother (“in dreams” 97) and a childhood friend now also “out on the street / making money to eat” (“schoolyard hooker” 85). The poems in this section are rooted in the human body, sensory experience, and direct human connection; by contrast, the more detached, more spatially focused, and less populated “lists” that punctuate these poems take on the appearance of canvases or backdrops for the forms of lived experience the poems describe. Eng’s “how it is (November 2009),” for instance, is preceded directly by a poem titled “superhooker in the hall of justice,” which describes from the first-person point of view a sex worker fighting for social justice in the way a superhero might:

and bam
 i’m a superhero
 i take this city by night
 jumpin skyscrapers, midnight flight
 i’m down for the fight
 i give the ladies all my might
 i show them cops wrong from right. (91)

This poem, and others in Eng’s “Autocartography,” fills the vacant streetscape with a forceful humanity: vital, compelling, autonomous, agile.

In contrast to Eng’s poem, Douglas’s *Every Building* “empties out” what Oleksijczuk calls the neighbourhood’s “socially disprized and unloved” (110). *Every Building* (see Fig. 13) is a 16’ long panoramic composite photograph depicting, as its title suggests,¹²⁷ a specific and

¹²⁷ Gabrielle Moser writes that “[t]he specificity of the photograph’s location is revealed by the work’s title, which names the exact address where the photograph was taken[, o]nce designated ‘the worst block in Vancouver’ by the Vancouver Police Department” (59).

clearly identified section of Vancouver's Downtown Eastside neighbourhood. To capture the image, Douglas and his studio assistants closed off a block-long section of Vancouver's Hastings Street to both vehicles and pedestrians, set up studio lighting, and, between the hours of 10 p.m. and 4 a.m., photographed the south side of the city block, section-by-section (Moser 59). The resulting composite has been praised for its cinematic qualities¹²⁸ and has been called a "time capsule" that documents the DTES just prior to an intense and contentious period of redevelopment and gentrification (Fitzpatrick n.p.).¹²⁹ The photograph has also been lauded for its perceived critique of global capitalism, a perception credited to the photograph's depiction of a streetscape "haunted by immaterial and intangible global forces" (Moser 57). By presenting a contrast with the way the streetscapes of the DTES normally appear in news media, and by clearly identifying the block's location—one which borders some of Vancouver's "most affluent and commercially successful neighbourhoods"—Douglas's photograph, proponents suggest, seems to offer "a critical alternative to progressive narratives of global capitalism" (Moser 57).¹³⁰



Fig. 13. Stan Douglas, *Every Building on 100 West Hastings*. Image credit: Arsenal Pulp Press.

It is interesting, however, that critics of *Every Building* point to these same features in their appraisal of the photograph: the artificiality of its lighting and staging, these critics argue, and the emptiness the image depicts, produce an unnaturally depopulated and aestheticized

¹²⁸ See, for instance, Moser.

¹²⁹ In the most prominent and dramatic case of the neighbourhood's redevelopment, the Woodward's building underwent partial demolition and redevelopment between 2006 and 2010.

¹³⁰ Moser acknowledges a difficulty here, however: she writes that "the photograph's status as a physical art object that circulates, and is implicated in, the same economic system it critiques ... raise questions about borrowing techniques from dominant forms of representation in order to critique globalization" (57).

representation of a typically busy urban streetscape (Eng, Oleksijczuk, Moser). Critics suggest that *Every Building*'s staged and stylized view of the street establishes an unsettling tension between the lived experiences of those who normally live and work in the DTES and the synthetic emptiness that the photograph's status as "art" requires (Moser 59). This tension is especially potent because of the demographics largely populating the street Douglas represents. Moser writes that

the people who live and work along 100 West Hastings are often members of marginalized groups ... who are repeatedly pictured and misrepresented in Vancouver's news media. [Because of this composition,] the Downtown Eastside has ... become a hub for community groups, social workers and other services that offer resources for homelessness, addiction and mental health. Douglas's [omission of] these figures [both residents and social service providers] therefore creates an unusual view of 100 West Hastings that is purposefully unfaithful to both popular representations and lived experiences of the landscape. (59)

For Moser, then, the failure of *Every Building* rests in the way it deliberately obscures both the lived realities of those who normally move through the cityscape the photograph depicts and the media (mis)representations that help concretize the marginalization and ostracization with which those people live. The degenerating composite of Thien's project, in contrast, represents Hastings Street without staging or artifice. Instead, in its multimodality and visual composition, *VM* represents the Hastings corridor as a rich amalgam, no less lively for its decay.

In another critique of *Every Building*, Eng¹³¹ takes issue with a companion essay by Oleksijczuk in the published volume containing Douglas's panoramic composite. Specifically,

¹³¹ Eng lived in the DTES between 1996 and 2016, when, according to the afterword of her poetry collection *Mercenary English*, she moved out of the neighbourhood because of her sadness about the neighbourhood's having

Eng questions Oleksijczuk's claim that the "deep emptiness" pictured in Douglas's depopulated city block provides "an opening in which to contemplate the fate of Vancouver's missing women" (Oleksijczuk 110). Oleksijczuk writes that the photograph's "emptiness can be mobilized to evoke a space haunted by the socially disprized and unloved" (110). Eng bristles at this depersonalized stance toward the dispossession of neighbourhood residents and argues that "[f]or some of us, this erasure is lived, not the subject (object?) of art" (121). Ryan Fitzpatrick observes that Eng's critique points to "the limit of contemplation," since Douglas's photograph presents "not only an erasure of women themselves ..., but also an erasure of the spatial processes and histories enabling the disappearance of women" in the DTES and elsewhere (n.p.). In the two decades since its creation, then, Douglas's "fantastic, impossible perspective"¹³² on this Vancouver city block has animated a debate about the impacts of market forces, media representation, gendered violence, and socioeconomic and ethnocultural segregation on an historically significant¹³³ and socially complex urban neighbourhood—and the role of art in interpreting and representing those impacts. Thien's project takes up the complexities of this neighbourhood by acknowledging rather than obfuscating them. Instead of clearing the streetscape of its untidy elements, she explicitly hands determinative agency to residents of the neighbourhood she calls "a novel of stories [that, despite being] steeped in controversy and

become "an expensive enclave that has displaced some of the city's most vulnerable people" (119). For Eng, the tipping point in her decision to leave the neighbourhood was the demolition and redevelopment of the United We Can recycling depot, located at 39 East Hastings—a redevelopment, Eng writes, which disrupted local economies related to can collection and recycling and constituted "a war on the poor" (119). In *Mercenary English*, Eng describes this recycling depot as a "place where homeless people / endeavour / every day / in this city to make money" (81). At the time of the depot's redevelopment, the *Daily Hive* reported that United We Can employed 120 people and was visited by 700 "binners" [can and bottle collectors] daily. ("Downtown Eastside Bidders")

¹³² Arsenal Pulp Press book blurb.

¹³³ Before European settlement, the area now considered the DTES was an important fishing and hunting ground for local Indigenous people. Later, it became a working-class residential area for those involved with the early logging and fishing industries. It is considered one of Vancouver's oldest neighbourhoods. (For more on the history of the DTES, see Jodi Newnham.)

decades of transformation[, is] still at the heart of our city, a visual reminder of our history, and a centre for debate in our future” (“Hastings Street: A Corridor of Transformation,” qtd. in *VM*). This description, and *VM* more broadly, recognizes the longer timeline on which Hastings Street, in its current form, is located, and in this way Thien avoids a static representation of the street and attends instead to its material, social, and historical richness.

In stark contrast to the heterogeneous multiplicity found in Thien’s works, one can read Douglas’s aestheticized streamlining—or, in Moser’s words, “emptying out” (59)—of the 100 block of West Hastings as a “strategy of containment” (Beauregard 185) that insulates viewers from having to confront the historical and ongoing displacements and dispossessions enacted along that urban corridor. Applying Beauregard’s logic of strategies of containment, then, an imposed aesthetic simplicity in the visual field offers the audience a “clear route” but produces a buffer between audience and object, and prevents an informed, located, contextualized reading of the place the work represents. In *Vancouver of the Mind*, Thien proposes an answer to the question posed at this beginning of this chapter about how to begin. She invites readers into the spatial specificity and experiential heterogeneity of the place she examines and stretches audiences’ experience of the work beyond the boundaries of the screen, producing a reading experience that is not “bewildering”¹³⁴ but representational and just. The degeneration that illustrates *VM*’s status as a living document works in concert with the elements of the project that explicitly invite readers’ collaboration and embodied engagement, and their participation in a dynamic system that changes as new forms or degrees of degeneration and collaboration occur within it. *Vancouver of the Mind* provokes a consideration of what remains in ruined spaces by locating the reader/viewer *in* such landscapes and observing the “affective, embodied

¹³⁴ This is Lissa Holloway-Attaway’s term.

experience” the subject has when traversing ruins—physical or digital (Miller and Garcia 167). In this view, the human subject occupies the space of the ruin and becomes implicated in the continued revision of its meanings. *VM* is compelling and lively *because* (not in spite) of its structural unevenness, functional idiosyncrasy, and unexpected affordances, and these qualities produce a generative potential for charting a way through our current, troubled relations with materiality.

Chapter IV

The “Sedimentary Archives” of Fred Wah and the High Muck a Muck Collective’s *High*

Muck a Muck: Playing Chinese: An Interactive Poem

What is missing in this fight [is] the story, the whole story,
with all the connections. I[t is] my job to increase the area of what is lit.

– Arundhati Roy, in Aradhana Seth’s *Dam/Age*

The spore in diaspora drifts
Pacific ocean bridge ...
the strange new grammar
home.

– Fred Wah, “Vancouver” (*High Muck a Muck*)

On its home page, *High Muck a Muck: Playing Chinese: An Interactive Poem (HMM)* pictures British Columbia’s Fraser and Columbia Rivers and their tributaries snaking across the back of a human figure, originating at points along the Rocky Mountain range and heading first in a northwesterly direction before turning sharply toward their eventual, respective mouths on the Pacific Coast (see Fig. 14). At its outset, then, *HMM* embodies the rivers: embedding their trajectories in the human form, the waterways both giving topographical variation to that form and locating themselves within its bounds. This digital, interactive, interdisciplinary project superimposes human figure and river basin to accentuate humans’ implication in the history, health, and survival of the rivers and to make visible the co-relation between humans and environment. It also, however, highlights the sheer materiality of the Fraser and the Columbia: the vast coverage of their voluminous, winding lengths. In the afterward to Fred Wah and Rita Wong’s collaborative poetry project *Beholden*, Wah writes that the Columbia River is

such a material thing, it [ha]s water, it has banks, it has history, the long time of itself...

and it’s still there, this water flowing out to the Pacific Ocean. ... It [reminds me of] the

proprioceptive quality of experience. [Of the idea that] the words in the poem have substance ... [and the] sense of the non-human aspects of the river. (143-4)

Wah, in his way, calls this materiality “isness” (*Beholden* 143): a state of being that is embodied, relational, substantive. In *HMM*, Wah and the multidisciplinary High Muck a Muck Artists’ Collective (HMMAC) instantiate this “isness,” this embodied relationality, by mapping poetry and geography onto the human form and humans onto the topographies they inhabit.

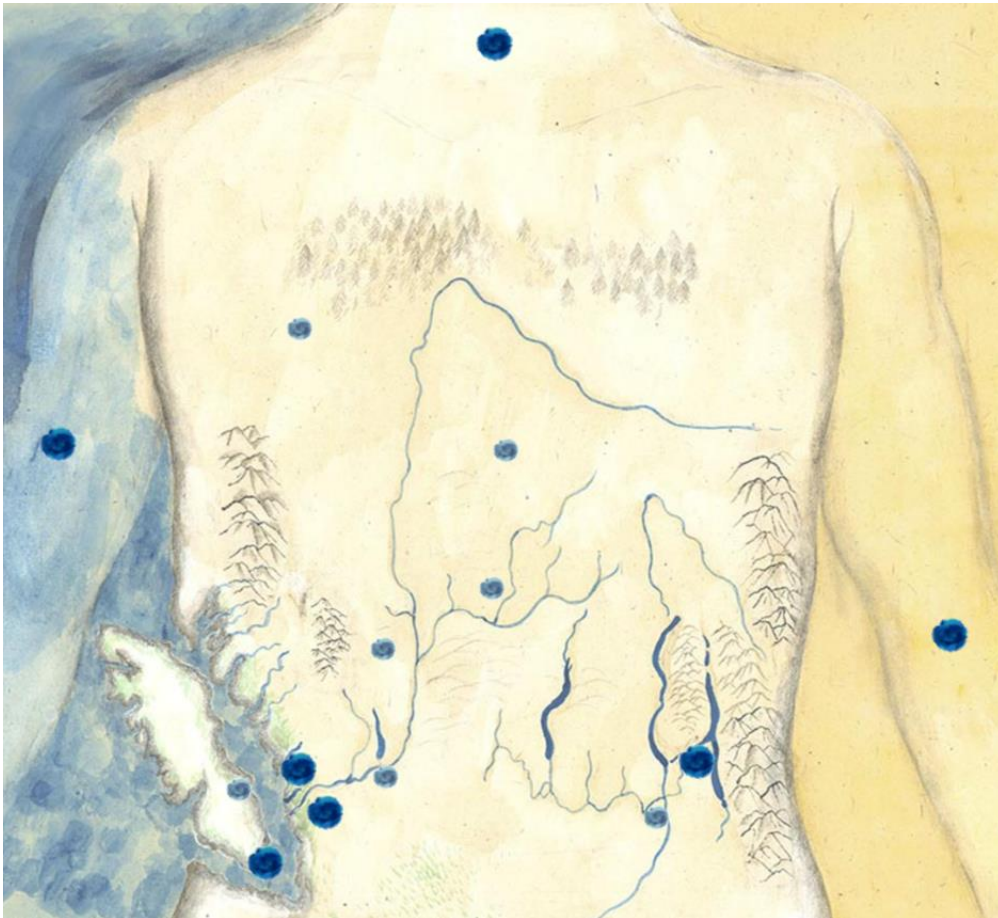


Fig. 14. High Muck a Muck Artists’ Collective. Screenshot from *High Muck a Muck: Playing Chinese*.

In this chapter, the Fraser and the Columbia, and the geography through which they run, will frame my analysis of the intersections *HMM* observes between and among geographic, industrial, anatomical, and artistic forms. *HMM* is a distinctly difficult work to know how to

approach, so full is it of media, makers, voices, geographies, and myriad other components. But the rivers, and the other bodies of water to which they connect, both chart a course through the topographies the project pictures and provide a *way in* to my analysis of them. I will examine the rivers' trajectories across the landscapes pictured in *HMM*, and the ways their interactions with other geological and topographical features—and the influence they wield on both human and nonhuman communities—map relational patterns among readers and across literary genres and other forms of art. I will consider how the material relationality Wah describes in *Beholden* can inform the kinds of kinship figured in *HMM*: structures of genetic or familial relation, but also the forms of kinship that cross ontological boundaries and the proximities between and overlaps among the sensory, textual, and/or narrative elements *High Muck a Muck* embodies. I suggest that its multimodal interactivity positions *HMM* to productively explore these forms of kinship and relation by composing what geographer Eric Magrane calls “an open space of multi-vocal story” (“On Form” 41)—not for the purpose of diminishing the individual perspective or neutralizing difference, but rather in order to locate the self within larger relational structures and governing systems, including those related to oppression and the distribution of power. I argue that, in *HMM*, rivers, migratory routes, mountain ranges, and other arterial forms and formations work in conjunction with the project's multimodality to materialize relational structures and embed the reader in the spaces the work figures. Further, I argue that the project's collaborative and multidisciplinary ethos cultivates in audiences a proprioceptive approach to the reading process, an approach that heightens readers' sense of the position of their body in space, its spatio-temporal relation to objects in its surroundings, and the material interactions instantiated by its location in and movement through space. This approach to the reading process, I suggest, strengthens readers' sense of the connective tissue which binds them to the places, spaces, and

structures of the world. Sarah de Leeuw writes that “poetry anchored in geography is not just poetry [that is] focused on the soil and ecology and the dirt of the earth; it’s poetry that writes peopled-places too” (7). De Leeuw’s observation points to the artificiality of distinctions between “human” and “nature” and illustrates the ways people and their artistic productions are part of the substance of the world. In their multimodal project, the High Muck a Muck Artists’ Collective anchors poetry in the North Pacific Ocean, in foothills and mountain ranges, along the length of the Canadian Pacific Railway, in the urban cores of Vancouver and Richmond, and in the Chinese enclaves, businesses, and cemeteries of Victoria and Nelson. In this range of places, *HMM* embeds poetry alongside voice recordings, illustration, dance and movement, and other art forms, producing a composite that reflects the embodied, material relationality of which Wah’s “isness” speaks.

HMM’s multimodality and multispatiality work to stimulate readers’ sensory reception in order to connect them—not only conceptually or virtually but *palpably*—to specific places and spaces and to heighten their sense of their own relation to and embeddedness in the contexts inhering in those locations. Daphne Marlatt probes the kinships between writing and environment in ways that evoke Wah’s notion of “isness” and speak to *HMM*’s work to locate the reader in materialized relational structures. Observing first the characteristics of prose, in particular, Marlatt writes, “connection and continuity ... are features of a sentence transferring action from subject to object, thought from sentence to sentence in forward (linear) moves,” and the connective tissue produced by this transference “shapes thinking” and constitutes “one way we make sense of what surrounds us” (“Immediacies” 269). Figured thus, the act of writing prose is a process of moving through space *as* that space takes shape around us, a process of producing the “connective tissue” around and through which the material world coheres. For

Marlatt, however, *poetry* associates differently with environment. For her, poetry's capacity to *disrupt* linear connectivity underscores the question of how "the lateral drift of linguistic connectiveness ...[can] register the ways we are implicated, on so many levels, in the fragile overlapping eco-social webs of our world" ("Immediacies" 269). Poetry, in other words, embeds us in our environment differently from the way narrative prose embeds us: the "lateral drift" poetry enables—its "ecstatic ... potential for syntactic permutation, its rhythmic runs and sudden verbal associations" (Marlatt, "Immediacies" 267)—brings a different quality to our embeddedness in environment: a broader one that is more deeply implicated and more relationally intricate.

This lateral movement—whimsical, associative—describes also the way readers are invited to move through *HMM*, and underscores the embedded, embodied relationality that movement requires: lateral, but located; contingent, but contextual. This movement both forms and is informed by its context, much like the bodies and movement of the Fraser and the Columbia form and are informed by theirs. With one exception,¹³⁵ each dark blue navigational node in *High Muck a Muck* leads to an illustrated representation of a specific and delineated geographic area: Victoria, Vancouver, Richmond, Nelson, Canada, and the Pacific Rim.¹³⁶ The project's blue navigational nodes afford the reader self-directed movement through the work's textual, visual, and auditory elements and through the geographical contexts the work represents. This associative movement also describes *HMM*'s process of composition. While roughly twenty

¹³⁵ The uppermost dark blue node leads to "Everywhere and Nowhere."

¹³⁶ For those who may not have read through *HMM*, I would like to offer a brief overview of its structure and functions: At the outset, readers are presented with a Pak Ah Pu lottery card, and an invitation to "Take a gamble and enter." Once readers click on the lottery card, they activate the project and arrive at a map of British Columbia (see Fig. 1). Each of the blue dots layered upon the map is a button that opens a different section or element of the project. Some of these sections or elements are textual, overlaying the map itself without opening a new page; others lead away from this map to other maps, such as those examined in detail later in this chapter. On each of those subsequent/internal maps, readers can click on/activate further nodes that open other elements in a variety of media.

contributors participated in aspects of the project's creation,¹³⁷ five members comprise the core of the HMMAC: in addition to Wah, these core members are designer and curator Nicola Harwood; architect, dancer, and videographer Thomas Loh; stage actor, puppeteer, and videographer Bessie Wapp; and composer Jin Zhang.¹³⁸ The challenge I face in approaching this project lies in its sheer multiplicity—of creators, of spatial referents, of media—and I am aware, at the outset, of the limitations this chapter will necessarily encounter. It will not be able to examine every geographic area the project represents or the role of each medium present in the work, and this chapter is thus necessarily a work of selective omission.¹³⁹ I will focus primarily on two of the regions mapped by the HMMAC: First, I will consider the project's map of Nelson for the ways its multimodality and references to the topography of the Columbia Basin embed the reader in the fuller historical context of the region; second, I will examine the project's map of Vancouver for the interontological ecology it, and *HMM* more broadly, represents. First,

¹³⁷ This number includes oral historians, graphic artists, sound engineers, web developers, performance artists, an installation specialist, and a photographer.

¹³⁸ *High Muck a Muck* was adapted to a digital platform relatively late in its development, having been conceptualized and realized first as a physical gallery installation. While it is beyond the scope of this chapter to address in depth the gallery exhibit, it is important to acknowledge the origins of the electronic version of the project. In hindsight, and considering the work's thematic concerns, *HMM*'s eventual migration to digital space seems inevitable; however, when in 2011 Fred Wah and four other artists, each working in different disciplines, first began to conceptualize the installation, there was no plan to adapt the work digitally. In a telephone interview with me in 2016, Wah explained how, rather than beginning with a rigid plan for executing the project, the group's objective was to undertake the work collaboratively, multidisciplinary, and experimentally, beginning from the broad theme of the history of the Chinese community in British Columbia's south-eastern interior. Over the course of their brainstorming, members of the collective became interested in locating the intersection between migration and identity: they wanted to explore the ways that one's identity, and its expression, changes when one crosses geographic borders or other symbolic thresholds. They wanted to apply a multidisciplinary lens to an investigation of the ways such migrations effect a hybridity in the diasporic subject—the ways, in other words, that in the resettlement process the “strange new grammar [of a place becomes] / home” (*HMM*, “Vancouver”). Though not planned from the outset, the work's eventual adaptation to the digital sphere was important in terms of its own ability to cross borders. Beyond enabling thematic attention to transition and migration, the electronic format enables the work to transcend spatial, temporal, and technical limitations in order to reach a wider audience and achieve a sustained existence beyond the temporally delineated life of the gallery exhibit.

¹³⁹ Note that I will return to *HMM* briefly in the conclusion to this dissertation in order to discuss some of the project's elements that fell outside the scope of this chapter but which are nonetheless important to address in the thesis broadly.

however, I want to lay the theoretical groundwork for this chapter's engagement with the notion of a digital ecology.

Genre, Form, and the Possibility of Embodiment in a Digital Reading Environment

HMM's multimodal interactivity disrupts the boundaries between generic categories and undermines those boundaries that delineate subject positions such as "artist" and "reader." The resultant reconfigurings highlight networks of kinship and relation differently from the way a single-genre work of art with no particular interactive affordances would speak to such networks. *HMM*'s disruption of generic categories and the way it integrates in one coherent body such a wide range of art forms—poetry, prose, line drawing, watercolour, puppetry, videography, sound recording, dance—widens the perspective of reader-viewers, revealing the intersections and convergences between and among apparently disconnected human and nonhuman bodies, highlighting the raw potential of flux and indeterminacy,¹⁴⁰ and demanding from its audience an embodied relationality to the spaces and structures *HMM* depicts. Its multimodality, in other words, underscores the project's function as a whole system and its participation in broader critical conversations around ecology and industry. Before I move to a closer analysis of the geographic, industrial, anatomical, and artistic forms at work in *High Muck a Muck*, however, I want first to lay out my thinking related to embodiment and the virtual sphere and articulate how that thinking propels my analysis in this chapter, specifically as it relates to concerns around ecology.

¹⁴⁰ Elizabeth Grosz calls attention to such potential a focus on "events and becomings, not just things and their knowable, determinable relations" (*The Incorporeal* 4).

In her essay about art and activism in relation to Newfoundland and Labrador's Muskrat Falls hydroelectric project, Lisa Moore considers the role of the artist in responding to environmental crises and social injustices. She asks,

What kinds of images or visual and performance art might capture how things feel on the ground? How do artists, photographers, fiction writers, videographers, and musicians make such incomprehensible ideas as climate crisis and the need for energy transition touch down in our intimate lives so that they are not only intellectually graspable but *felt*? (277, emphasis original)

Moore's questions help me develop my own argument related to the embodied relationality *HMM* cultivates by probing the idea that both art and activism work to combine "audience and actor" (277), so that violations—of ecology, humanity, trust, principles—become palpable, concrete, and embodied even beyond those whom those violations impact most directly. Beyond both being "alert to visual design [and aiming] to provoke social change," Moore suggests, art and activism also share temporal qualities, such as their mutual engagement with degrees of spontaneity and planning, and the line they walk between being "ephemeral and archived" (277). They both also depend on the presence of an *embodied* subject—though Moore is quick to nuance this requirement, citing Judith Butler, who argues that, due to geographic or other constraints, "specific bodily appearance" is not always possible for all subjects, and that "those who operate through virtual or digital networks are *also* part of 'the people'" (qtd. in Moore 278, emphasis added). The inability corporeally to attend protests—or art events—in geographies far removed from where one lives does not, in other words, necessarily restrict one's ability to engage with and lend one's embodied subjectivity to those activities, and the move to recognize virtual (and not only bodily) attendance to art and activism goes hand in hand with the move

away from a “practice[d] estrangement from the body” that seeks to refuse “that we are made up of and dependent upon water, earth, and air, as well as living creatures, such as microbes” (Moore 292). Not only, then, is embodiment possible in virtual contexts, but the recognition that embodiment exists in those contexts, too, is also an important step toward the dismantling of a damaging human-self/nonhuman-other dualism.

It may seem counterintuitive to suggest that virtual attendance or participation can underscore an embedded corporality. How can a digital work of art propel the reader-viewer beyond the intellectual and into the *felt*? Can we call the readerly activities of *HMM*’s audience “embodied”? Does the click of a mouse or other forms of activation of a digital work’s elements constitute a substantive bodily movement on the part of the reader-viewer? Just how kinetic *is* the act of reading one’s way through the spaces of a digital project such as *HMM*? This chapter takes up the thinking of a substantial theoretical body of work that examines the possibility of embodiment in virtual reading environments, and, in doing so, considers how readers are activated in particular and palpable ways by digital multimodality and multidisciplinary. Stephanie Posthumus and Stéfan Sinclair argue that reading “is an embodied activity, regardless of the medium,” and that digital reading environments¹⁴¹ invite embodied interactions with the text, such as annotation, searching, comparison, referencing, sampling, and illustration: “resources and functionalities beyond the text” that highlight the multiple physical interactions made possible by the digital medium (258). Actions equivalent to these are of course available to users of analogue technologies such as the printed book, but it is the specific *quality* of these digital functionalities, the ways they work in concert with one another, and the particular

¹⁴¹ Posthumus and Sinclair use this term to illustrate the contrast between reading a print text and reading digitally: they write that while “a reader and an analogue text can be mediated by a print page in a fairly simple system, ... the entire infrastructure needed for a reader to access a digital text and any additional functionality is evocative of [the] larger system [of a] reading environment” (258).

physical interactions they provoke, that is unique to multimedia ecologies such as *HMM*. Bodies move in particular ways in response to these digital tools and functions. One can annotate or search a physical book, but muscle movements differ in digital annotation and searching. Embodied interactions with a digital work necessitate a different kind of manipulation and an engagement with the digital infrastructure of the text, such as the workings of built-in search or referencing tools. Reading digitally also means more frequent changes to the field of vision, for instance when one moves between screens or clicks to access embedded or hyperlinked material. Though subtler than more conspicuously physical movements, these motions constitute a set of movements that are no less embodied for being small. Lissa Holloway-Attaway, too, notes the embodied nature of reading when she suggests that within new media ecologies, readers and work merge in a kind of “self/real-world environmental coupling” (para. 4). In such reading environments, the reader becomes integrated into the work itself, and integration is further heightened in ergodic works, where the reader’s body plays an essential, activating role and thus becomes part of the mechanical apparatus of the system—what Moore calls the “melding of audience and actor” (277). This view positions the reader-viewer not as passive consumer of the work but as an active and integral participant within the network of human and nonhuman actors which comprise it, actors that include also the work’s historical and geographic contexts and referents. Thus, as a reader-viewer in such reading environments, one develops a heightened awareness of one’s body as positioned in relation to the objects and materials of which that space is composed. GeoHumanities scholar Harriet Hawkins notes the implications of this integration when she writes that an embodied and situated reader-viewer is key to “activat[ing] them as a social and political subject,” and that this activation is a prerequisite for “socially engaged and

interventionary practices” (99). In this view, passive consumption of text or media cannot produce social engagement.

Carola Hilfrich draws spaces and structures more concretely into the discussion of the activation of the reader when she queries the embodiment of reading about architectural or geographic space, in particular: what is “the potential,” she asks, “of ... moments [in which] literature and architecture, words and buildings and spaces, readability and inhabitability intertwine with humans[?]” (qtd. in Matteo Pericoli 303). In her discussion of literary architecture and space,¹⁴² Hilfrich calls for investment in “an active knowledge that needs to be played by hands and whole bodies in collaborative ways” (qtd. in Pericoli 302). In negotiating such literary spaces, Hilfrich argues, readers must be kinetically and tactilely engaged: they must be—and indeed *are*, she posits—“on the move, stirring up emotions, taking actions, slowing down, changing positions, stepping aside, or shifting grounds” (qtd. in Pericoli 303). Hilfrich calls this kind of engagement “haptic spatiality,” and she argues that reading about architectural or geographic space “activates [readers] to grasp actual texture, rather than form or meaning, and to *move* rather than to focus, enhancing [readers’] sense of [the] open-ended plasticity of and value of [their] embodied engagement with [those texts]” (qtd. in Pericoli 300-3, emphasis added). Hilfrich’s “haptic spatiality” might alternately be termed *spatial reading practices*: reading, in other words, that locates the reader in the concrete spatial specificity of the places the work examines and that requires the reader’s active, kinetic navigation of literary representations of real places and the real structures that populate them. Architect Matteo Pericoli suggests that such reading practices are not the same as readers’ “natural process of imagining and visualizing the locations described in the text”; rather, he writes, they are “the clear sensation of being

¹⁴² Here architecture scholar Jonathan Charley interviews Hilfrich on the topics of literary architecture and Matteo Pericoli’s touring collaborative project *LabLitArch*. This interview is appended to Pericoli’s article on the project.

immersed in a space”¹⁴³ (284). *High Muck a Muck*’s multimedia interactivity gives readers this sense of immersion in a space by embedding its textual, visual, and auditory elements in maps and charts of actual places,¹⁴⁴ and by locating its readers at real and identifiable landmarks within those places. The project’s interactive reading environment provides the conditions for the reader’s immersion in the physical and contextual ecologies of the places the HMMAC examines. It invites and facilitates readers’ active navigation through the textual and other medial elements embedded in the topographical and structural features *HMM* pictures, and thus, through the historical and current contexts inhering in those places and spaces.

Moore’s inquiry into the role of art in relation to social and environmental justice applies well beyond the Muskrat Falls hydroelectric project. *HMM* steps back to apprehend the system of waterways and topographical features stretching across British Columbia and Canada, and to render the landscapes and historical contexts of those places *felt* to the reader. The project’s multimodal approach locates the reader-viewer at the junctions and confluences most resonant with the histories and geographies it examines. It locates readers at the site, in Vancouver, of what would eventually be the western terminus of the Canadian Pacific Railway’s “iron ribbon,”¹⁴⁵ which *HMM* pictures stretching across a hand drawn map of Canada. It locates readers among Victoria’s docks and shipyards, references to British Columbia’s early

¹⁴³ This echoes foundational material culture theorist Bill Brown’s “sensation of thingness”: the physical sensation of the materiality of the world (*A Sense of Things* 17).

¹⁴⁴ It is interesting to think about how one’s immersion in a digital representation of a place could translate—somehow—into a “clear sensation” of immersion in that space. There is, of course, a difference between being immersed in a visual or textual representation of a place and physically being in that place, but art’s capacity to “transport” the viewer/reader is a longstanding idea. On this matter, Lisa Moore, for instance, writes that “[n]ovelists ask readers to leave their own bodies, in order to step into the skin of someone else, a setting somewhere else, to feel... the emotions of another, the struggles, moral dilemmas, and desires of another, in order to create empathy... [This is] a political act, and a kind of embodiment” (“Embodying” 290).

¹⁴⁵ These words are found on the commemorative plaque that stands at Craigellachie, British Columbia, where in 1885 CPR financier Donald Smith drove the last spike into the trans-Canada rail line, a moment which cemented the line as a symbol of Canadian national unity.

shipbuilding and logging industries. It locates readers amid the sprawling urban grid and housing developments of Richmond, references to the Lower Mainland's real estate and development industries. It locates readers in between the individual channels of the Fraser River estuary, a reference to that region's historical fishing, canning, and shipping industries. And it locates readers along the waterways that frame Nelson and the Columbia River Basin, references to the legacies of that region's mining industry and its own fraught hydroelectric project. These sites, and others pictured in *HMM*, overlay geography with historical references, mixed media, and the reader's own anatomy to create an intertemporal and interontological composite, and thereby highlight the artificiality of such categorical distinctions. *HMM*'s work to locate readers in these places and spaces matters because it compels the reader to apprehend the contextualizing network of histories and stories that give form to one's experience or perception of a place, and because it positions readers—tangibly, sensorily—on the longer timeline inhering in the places represented and implicates them in the development—past and future—of those places. In other words, by strengthening readers' sense of the connective tissue which anchors them to the spaces and structures the project represents (including Canada broadly), and by doing so in a way that invites a sense of embodied and appropriately scaled relationality, *HMM* works to subvert the persistent idea of the self as primary agent against a backdrop of *everything else*, an idea that has so efficiently separated humans from environment in our own imagination.

Contextual Resonance in the Columbia Basin: the Silver King, the CPR, and the Columbia River Treaty

The composite assembled by the HMMAC offers readers the possibility of a contextualized lateral movement—associative, self-directed, embedded, atemporal—through the geographies and histories *HMM* represents, but also through the digital work itself, by way of the

nodes offering transit through the project. At the map of Nelson, the reader is drawn into the spatial specificity of the city: the shoreline along Kootenay Lake, the rail line heading north toward Kaslo, the downtown businesses, Cottonwood Creek at the city's southern edge, the cemetery, the mountains, the surrounding areas of dense forest (see Fig. 15). *HMM's* map of Nelson is framed by bodies of water and other topographical features, and this framing is key to reading that chapter of the project. Just as rivers, mountain ranges, and other geological formations have shaped Nelson's and the Columbia River Basin's socio-economic composition,



Fig. 15. High Muck a Muck Artists' Collective. "Nelson." Screenshot from *High Muck a Muck: Playing Chinese*.

so too have the region's industrial impulses altered the topography of the region. Prominent at the intersection of industry and ecology in the area around Nelson is the 1964 Columbia River Treaty and its socio-economic and ecological repercussions, which have echoed through the

Columbia River Basin in the decades since the construction of the dams.¹⁴⁶ Once dammed, the river system in the Columbia Basin became what has been termed an “organic machine” (Richard White n.p.). Production of hydroelectric power came at all costs: Indigenous territories “were flooded without negotiation[, agreement[, or] compensation” (Wagner 10). Thousands of acres of farmland were flooded after the construction of the Columbia River Treaty dams in British Columbia, and “in the Arrow Lakes region, 25,000 acres of arable land were lost and 14 communities and 2000 people were displaced” (Wagner 11). Wagner notes that while the majority of wildlife habitat losses in the Columbia watershed were due to settler activities such as logging, mining, and road construction, rather than to the flooding itself, the Columbia River Treaty dams were instrumental in drawing those settlers to the area in the first place (11). Framed as it is by waterways and mountain ranges, *HMM*’s map of Nelson gestures to this human and ecological context, engaging readers in a network of spatial and ecological relations¹⁴⁷ and in the matters of access and dispossession that have shaped the Columbia Basin’s socio-economic composition.¹⁴⁸

¹⁴⁶ The dams built in the Columbia River Basin on the Canadian side of the border with the United States and which form part of Columbia River Treaty are the Mica Dam (1973), the Duncan Dam (1967), and the Hugh Keenleyside Dam (1968), marked in orange in Fig. 16.

¹⁴⁷ For a discussion related to the effects of climate change on the Columbia River Basin, see Adrienne Marshall, et al.

¹⁴⁸ For specifics related to the Columbia Basin’s socio-economic composition, see G.E. Penfold; Adrienne Marshall et al.; and James Wood Wilson.



Fig. 16. “Columbia River Basin,” detail. GeoBC, Province of British Columbia.

On the right-hand side of *HMM*’s map of Nelson, an icon shows a man carrying a bucket yoke on his shoulders. His buckets, in addition to the man’s position roughly at the location of the now-defunct Silver King Mine¹⁴⁹ just south of Nelson, identify him as a miner and emphasize *HMM*’s concern with the intersections of industry, history, and ecology. The text that appears when this icon is activated references a second, related, Canadian industry and its historical resonance: it reads,

Some people are different.

You can see it. Or hear it.

That’s how I grew up

On the schoolground

What you’re called

¹⁴⁹ B.C.’s Ministry of Energy, Mines, and Petroleum Resources states that production at the Silver King Mine began in 1896 and continued until 1949. Mined at that site were silver, copper, gold, lead, and zinc (Government of British Columbia).

A painful spike. (*HMM*, “Nelson”)

In this passage, the term “spike” is not only a reference to the hurt caused by racist comments flung across a schoolyard; it is also a pointed reference to the construction of the transnational railway,¹⁵⁰ which exploited Chinese labour while also establishing itself as a symbol of Canadian national unity, cemented in the national consciousness by a photograph of CPR financier Donald Smith driving the final iron spike into the trans-Canada rail line upon completion of that project. Despite Chinese labourers’ contribution to the construction of the rail line, these workers are not pictured in that well-circulated photograph of the moment Canadian national unity took hold in the cultural consciousness. Historian Lily Chow looks beyond this stark omission, however, and notes that the moment the last spike was driven marked the onset of decades of systematic and federally regulated discrimination against Chinese people in Canada. Chow writes that,

[i]n 1885, once the Canadian Pacific Railway was complete and the Chinese labourers were no longer considered essential, the Chinese Immigration Act was passed, which imposed a Head Tax on new Chinese immigrants to Canada. ... [Then, i]n 1923, a second piece of discriminatory legislation was passed[:] the Chinese Exclusion Act. This act prohibited Chinese immigration, with just a few exceptions. It was not repealed until 1947. (15-6)

¹⁵⁰ Poet E.J. Pratt ends his long poem “Toward the Last Spike” with an exclamatory reference to this formative and long anticipated moment in Canadian history when he writes,

At last the spike and Donald with the hammer!

...

The last blow on the spike would stir the mould
Under the drumming of the prairie wheels,
And make the whistles from the steam out-crow
The Fraser. Like a gavel it would close
Debate, making Macdonald’s “sea to sea”
Pour through two oceanic megaphones—
Three thousand miles of *Hail* from port to port[.] (n.p.)

Catherine Clement details the specific acts of exclusion and discrimination enacted on Chinese people in Canada during the period of 1885-1947. She notes that while the federal government was responsible for the Chinese Immigration Act itself,

other levels of government [also] did their part to restrict and harass the Chinese community. They allowed or promoted segregation; forbid the Chinese access to public facilities, like swimming pools; prohibited entry into critical professions and public employment; denied Chinese born in Canada the right to vote; and enacted punitive business levies and bylaws to keep them out of commercial life. The racism carried over into the streets and into local business. It also found its way onto newspaper pages.

Harassment; name calling; denial of service; derogatory editorials and cartoons; beatings; and damage to property was a common experience for early Chinese. (18)

In *Mass Capture*, Lily Cho writes that during the head tax and exclusion period, Chinese migrants most often “listed their occupation [on official documents] as ‘labourer’...[and] gave their strength and resilience to the building of the country in whatever capacity was necessary, be it the construction of a railway or clearing land for agricultural use” (10). *HMM*’s reference to “a painful spike” and the project’s depiction of a Chinese labourer at the location of the former Silver King Mine layer these pieces of Canadian history to engage the reader with the fuller context framed by the waterways flowing across the project’s map of Nelson. The Silver King Mine, Chow writes, was known to hire Chinese labourers in contravention of anti-Chinese legislation after the completion of the CPR (126). By layering a textual reference to the railway—itsself so synonymous with the exploitation of Chinese labour—upon the location of a mine known to flout anti-Chinese legislation during the period of the Exclusion Act, *HMM* both highlights and undermines historical anti-Chinese racism in Canada. It places Chinese people,

whose contributions to the construction of the rail line were omitted from the most visible and popularized expressions of the historical record, at the centre of *another* trans-Canadian arterial system, this time one that, by way of its interactive multimodality, connects work and audience across the Canadian landscape. This second transnational artery re-*places* at the centre those whose contribution to early nation-building has been obscured by the historical record.

In this way, *HMM* re-positions its human subjects at the centre of the history to which it refers, but it also works to position—and implicate—the reader on and in the longer timeline it is only too easy otherwise to ignore. The project’s multimodal interactivity provides the conditions for the reader’s immersion in the physical and contextual ecologies of the places it examines. It gives readers what Pericoli calls a “clear sensation of being immersed” in space (284) and activates the forms of kinship and relation readers share with the “actual texture”¹⁵¹ of the places the project examines. Sophie McCall notes the affordances of cross-disciplinarity and the multi-sensory in destabilizing accustomed ways of seeing and enabling a reader-viewer to see their “own blind spots”: she writes that to cross “genre and disciplinary borders [by] shifting between documentary and speculative modes, layering graphic, sonic, and textual media, and experimenting with form and language” is to illuminate the reader-viewer’s “own positioned and partial perspectives [and] their reliance on particular codes of intelligibility in reading and interpreting texts” (“Living” 305; 294). *HMM*’s revisionist maps and multimodality unsettle readers’ ways of looking at the geographies the project examines. Dylan Robinson, too, observes the impact of the multi-sensory in exchanges between speakers and listeners. He argues that multimodality enables histories to “reverberate, sensorially” (43), both for the subjects

¹⁵¹ See Hilfrich (qtd. in Pericoli 302).

implicated in those histories and for the audiences listening to those accounts.¹⁵² In its revisionist map of British Columbia, *HMM* focalizes the histories and contexts of the Columbia Basin and those of the adjacent Fraser River and its estuary region. It steps back to apprehend the whole system of waterways and topographical features, and their place in the web of histories and contexts attached to those systems. But it also makes explicit the reader's position within that context, placing them at the locations in which the region's histories most resound and inviting their sensory engagement with the places pictured and their contexts. In so doing, the High Muck a Muck Collective enlivens the map, and deploys it as a working document, a living archive, sensorially resonant and "constantly generated" (Aït-Touati et al. 12). *HMM*'s maps offer readers the possibility of lateral movement—associative, self-directed, embedded, atemporal—through the geographies and histories represented, and through *HMM* itself.

Mapping the Waterways of the Lower Mainland: False Creek and the Fraser Estuary in Context

Each of the spatial representations in *HMM* is framed by the bodies of water and other topographical features present in the real place to which it refers. The representation of Vancouver (see Fig. 17), is framed, at its northern edge, by the North Shore Mountains and the Burrard Inlet, stretching from, roughly, Stanley Park to the west to just east of New Brighton

¹⁵² Robinson comments on the impact of the multisensory in the context, specifically, of the Truth and Reconciliation Commission and critiques of its integration of survivor testimony into its process. Those critiques point to "the TRC's testimony-giving process [as evidence for] its orientation toward the 'wound culture' of consuming traumatic narratives and the Western religious model of confession" (44). Robinson argues that the oral testimony gave "material presence to memory" and "sensory agency" to survivor-speakers, and that it ensured witnesses "not only hear[d] about residential school survivors' experiences, but [were] subject to the affective impact of voice, of language, and time of testimony" (46). Robinson writes that the sensory intersection enacted by the TRC process enabled difficult histories to "reverberate, sensorially" (43), for those giving testimony, but also for those listening to the testimony given.

Park and Hastings Park,¹⁵³ toward the base of the Inlet's Indian Arm. The southern edge of this representation is framed by the northern shore of False Creek as it was before its eastern tidal flats were filled in for the construction of the Canadian National Railway lands between 1917-21.¹⁵⁴ Intersecting these routes are east-west axes—apparently Hastings, Pender,¹⁵⁵ Keefer—which stop at Main Street on the right and just beyond Columbia Street on the left. Although “False Creek” is the only labeled element of this map, it is enough to orient readers spatially and enable them to identify the map as depicting Vancouver's Chinatown. A second map,¹⁵⁶ apparently the antecedent to *HMM*'s representation of Vancouver, confirms this orientation (see Fig. 18).



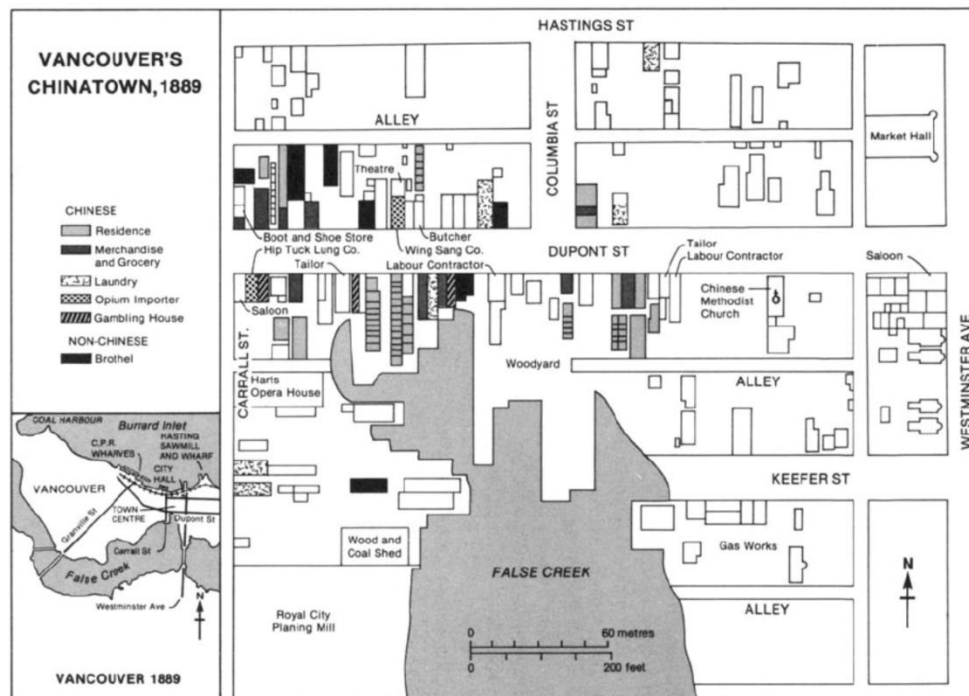
Fig. 17. High Muck a Muck Artists' Collective. "Vancouver." Screenshot from *High Muck a Muck: Playing Chinese*.

¹⁵³ See my chapter on Madeleine Thien's *Vancouver of the Mind* for more on the historical significance of Hastings Park, specifically as it relates to the forced removal of Japanese-Canadians to internment camps during the second world war.

¹⁵⁴ Donald Luxton and Associates, *Eastern Core Statement of Significance*, 2013, commissioned by the City of Vancouver.

¹⁵⁵ First called Princess Street starting in 1898, and then East Pender Street starting in 1904 ("Vancouver Chinatown"). In between, it was called Dupont Street, and was home to "Vancouver's first red light district" (John Mackie).

¹⁵⁶ This map shows the same part of the False Creek shoreline before the 1917-21 infill. The map ends south of Keefer Street just before the point where the shoreline originally stretched east. Just out of sight in the bottom right-hand corner of the map is the point where the Main Street bridge crossed the narrow part of False Creek before the infill.



14 Vancouver's Chinatown, 1889

Fig. 18. Map of Vancouver's Chinatown in 1889. David Lam Centre for International Communication, Simon Fraser University, 2012

Bethany Nowviskie writes that “[m]aping embeds the tacit promise that ‘you are here’” (108), but she also warns that in literary studies, maps are not a monolithic Truth. Instead, she writes, maps are “iterative and speculative”: not answers, but questions, invitations (114). The HMMAC uses maps to compel its audience to read in an embodied and spatialized way, and to deny readers the possibility of a passive or detached view of the social, cultural, and geographic displacements to which the maps point.¹⁵⁷ It also uses maps to offer its audience a point of entry to its subject. In each of these maps, the distinctive pre-infill shoreline of the False Creek tidal flats stretches into the neighbourhood and mingles with the human life therein. In *HMM*'s map, the humanity is represented figurally: an elderly man carrying a shopping bag, a dad pushing a

¹⁵⁷ The Tsleil-Waututh Nation has produced an excellent interactive map of the area around the Burrard Inlet that allows readers to refine their search in order to see, for instance, the pre-contact shoreline, the lost streams of the region, the civic sewer outflows, present and past industrial sites, oil and gas infrastructure, and many other of the “major impacts of colonial development in [the region]” (“New Interactive Map”).

stroller, butchers and shopkeepers in aprons, a smiling land developer holding a shovel, contemplative onlookers. These figures point to the relational currents running through and over the cityscape, the forms of sustenance, reproduction, growth, and decline that occur in and on geographic space. The superimposition of these contemporary figures on a defunct version of the shoreline, one long ago lost to the early and sustained fervour of industry and land development in Vancouver, makes explicit the inextricability of past and present. These figures observe and document the cityscape in which they circulate. One figure, holding a video camera to his eye, films the neighbourhood; another looks down at the defunct shoreline. Some of the figures meet the gaze of the audience, inviting viewers into the scene's layered temporality. Each of these figures also serves a functional purpose in the project as an icon that activates a fragment of poetry or leads to another element of the work, and so they effect a spatial layering as well as a temporal one.

The second map (Fig. 18) is no less vital for its lack of figures. The humanity imprinted on the cityscape in this map is represented by the businesses and industries marked upon it: woodyard, tailor, saloon, coal shed, market hall, butcher, brothel. Each marking represents a cluster of activity, many of the forms of industry, occupation, and effort that played out in early Vancouver. However, the cluster of life each marking represents also extends beyond the activity specific to that location and into other spaces, systems, and structures. The activity denoted by the wood yard, for instance, extends to the northern-coastal forests from which logs were shipped after the immediate area had been deforested.¹⁵⁸ The influence of wood yard and distant forest was reciprocal: in early Vancouver, the wood yards depended on those forests for their continued operation (and the workers for their employment), but those operations also extended

¹⁵⁸ See the Vancouver Heritage Foundation's "First Growth Lumber: Vancouver's Early Industry."

their influence into the forests' ecosystems and communities: the networks of human and non-human life¹⁵⁹ that were affected by the work of the loggers. The activity of the wood yard also extended to the life aboard the vessels that pulled the log booms from those forests to the False Creek yards. The coal sheds on the map gesture toward the water and air pollution caused by Vancouver's industrial fervour: the soot and smoke it emitted into the air and the effluent it discharged into the nearby water systems—systems which city officials at the time lauded for facilitating the “rapid and economical removal” of the various forms of waste produced by this industrial centre,¹⁶⁰ the waters of the Creek transformed by industrialization into what, in “Goodbye, Snauq,” Lee Maracle calls “a garbage dump” (213).¹⁶¹ Woven into this embodied, material relationality are the pre-infill tidal flats of False Creek, sustaining and enabling the industrial fervour of early Vancouver, providing access to and egress from this industrial core. Each marking on this map, then, is a node in the relational patterns running through, over, and beyond the geographic space itself, and the influence and implications of these relational patterns extend into the forms and structures of current day Vancouver: the stories it tells about itself as a city, the values and identity it projects related to architecture and city planning,¹⁶² and its very

¹⁵⁹ See, for instance, N. Dougan's *Cowichan, My Valley* (1973) and Brendan O'Donnell's (for Fisheries and Oceans Canada) “Indian and Non-Native Use of the Cowichan and Koksilah Rivers: An Historical Perspective” (1988), both of which describe the roles animals played in early logging practices on British Columbia's coast. These animals included the teams of mules and oxen that were used in logging and the horses used to pull cartloads of coal or logs between the wood yards or forest and the booms on the shoreline.

¹⁶⁰ In 1889, Vancouver's second mayor, David Oppenheimer, boasted that the city possessed “hygienic advantages” due to its proximity to the ocean and its access to abundant fresh water from the adjacent North Shore mountains (Arn Keeling 73). In 1890, Edward Mohun, designer of Vancouver's first sewage system, which served the small central part of the city our maps picture, noted that the salt water on all sides of this district enabled the “rapid and economical removal” of various forms of waste, and ensured its “easy conveyance ... to marine waters” (Keeling 74). However, by 1910, the shallow waters of False Creek's eastern tidal flats, and the heavy concentration of industry and population that surrounded them, meant that the release of “sewage, ... garbage, manure, slaughterhouse wastes, and other city offal” into False Creek made it “a flashpoint for Typhoid outbreaks, particularly among immigrant and squatter settlements” (Vancouver Health Department, *Annual Report*, 1910-12, qtd. in Keeling 75).

¹⁶¹ Snauq was the first name for the inlet which, once “dredged, drained, and resculpted [was] aptly renamed False Creek” (Sophie McCall, “Land” 179-80).

¹⁶² See, for instance, rhapsodic descriptions of the initial design for the new Vancouver Art Gallery (later scrapped for budgetary reasons). The gallery's CEO and executive director, Anthony Kiendl, called the original Swiss design

topographical outline, a byproduct of the city's early industrialism. *HMM*, like False Creek and the Fraser Estuary, is the product of the accumulated, sedimentary layers of which it is composed.

The High Muck a Muck Collective's map of Vancouver (Fig. 4) references, and departs from, the earlier map: it replicates the broad strokes and outlines of its precursor, while also omitting all but one of its labels. These references to and departures from that historical referent make a compelling statement about *HMM*'s project as a work of *poetry*, understood according to Marlatt's definition: *HMM*'s map of Vancouver embeds readers in the geographic space represented no less than does its precursor; however, it does so not by offering the linear coherence of a conventional map but by inviting the kind of associative, lateral, self-determined movement Marlatt associates with poetry. *HMM*'s map of Vancouver undoubtedly orients the reader spatially, but it also refuses the explicitness and detail of a conventional map, and, thus, it sidesteps the directiveness of its antecedent. By way of this refusal, of its deliberate open-endedness, *HMM*'s map of Vancouver—indeed, each of the maps in the project—facilitates a different kind of movement through space from that facilitated by a conventional map. While its historical counterpart shows the reader a way *through* or *out of* the geographic space pictured, it also confines the reader to specific courses and avenues and offers no clear indication of what lies beyond its frame. *HMM*'s map, on the other hand, uses functional, directional icons to offer the reader transit elsewhere in the project—to other geographies and histories—and in this way offers the reader a way deeper into the space pictured, beyond topography, and access to the context in which it is embedded. In this way, *HMM* invites the reader to participate in (rather

for the building a symbol of “reconciliation”: “This is a custom-designed, purpose-built art gallery with Indigenous living at its heart,” Kiendl said in an interview with the CBC in 2024. “It’s not like this building can be plopped down anywhere in the world, it really speaks to Vancouver. It is very much about this place, this culture, and it will be a huge expression of the Coast Salish worldview” (Mina Kerr-Lazenby).

than only read) the map, and to engage with not only the space its frame delineates but also the histories and ecologies that extend from it and with which it is layered. It invites readers' awareness of the position in space and time, and their bodies' relation to the objects and textures of their surroundings. *HMM* revises geographies and re-draws maps, and in so doing performs a potent revisionism: placing and replacing stories and communities upon the geographies from which they have been evicted or otherwise severed.

In their book of speculative maps, Frédérique Aït-Touati et al. write that conventional maps "give the impression of a flattened world[,] with the edges distant from each other" (104)—an impression, Latour writes in his foreword to that volume, that concretizes the fusion of "maps and the colonial imaginary" (5). Aït-Touati and co-authors write that maps are "made precisely for dispensing with Indigenous people and their ways of directing attention" (21), and the authors set out to undermine this function by reconfiguring our conception of maps instead as assemblage[s] of stories told, a multiplicity[,] a synthesis [that focuses on] the living and not on a fixed location[,] a tool that [allows] us not only to follow the trajectories of living things, but also to understand how they shape spaces and even constantly produce them[, so that the map] is no longer a fixed image, but rather a provisional state of the world, a working tool in evolution, constantly generated by living things. (12)

Despite the two-dimensionality of the screen as an interface, in its use of maps *HMM* resists the impression of a "flattened world," and places readers in relation *with* maps that have the capacity to hold and document the complex and shifting relief of the places they picture. The renderings of geographic space *HMM* presents are not what Latour calls the "grid-paralyzed base maps [of] the colonial imaginary" (5); instead, they are active reading environments, embedded with nodes enabling transit. They are "figurations" (Latour, *Terra Forma* 5) that resist stasis or singular

meaning and upon which histories, ecologies, and infrastructures are overlaid—pulsing, animated, shifting, but nonetheless still providing orientation,¹⁶³ *not* by rendering topography static, but instead by placing the reader within the contextual strata inhering in the space pictured.

HMM's cartographic revisionism¹⁶⁴ foregrounds the shifting and layered intersections that exist in geographic space,¹⁶⁵ and thus helps the Collective to materialize relational structures and embed the reader in the spaces the project figures. Where conventional maps fix and confine readers in the space and time pictured, *HMM*'s maps afford readers transit while also making *felt* the connective tissue which binds them to the places, spaces, and structures they represent. Aït-Touati et al. delineate the limits of conventional maps, which *fail*, they write,

when the ground itself seems to shift,¹⁶⁶ [and] landmarks cannot remain the same. The fixed point around which everything turns is the activity [itself, and in such cases, the] landmark is no longer immobile like a mountain peak, but if we train our attention intently on its transformations, it remains the only reliable option for grasping our position and our place in landscapes that are now alive. To orient ourselves here will thus be an attempt to inhabit a space populated by other living things, other entities who share and shape [the environment] with us. (22)

¹⁶³ Aït-Touati et al. write that the living maps their book offers share with conventional, colonially motivated maps the objective of “provid[ing] orientation” (22).

¹⁶⁴ As I was writing this section, my six-year-old came into the room, pointed at the map on *HMM*'s homepage, which I had open on my laptop, and said, “What is that?” “A map,” I replied. “Hhmmmmh...?” she said. “That does NOT look like a map.” Her observation was perfectly timed and spot on. Aït-Touati and co-authors write that non-conventional maps, or “living maps,” as they call them, “are not easy to read if you don’t first accustom yourself to their codes and legends. In a similar way, an Indigenous map will remain inscrutable unless you are informed by locals about its meaning” (21). Maracle’s “Goodbye, Snaug” documents the disorientation that occurs when one tries to integrate an unfamiliar representation of a space that has replaced the version of that space one knew so well.

¹⁶⁵ For another compelling “living” multimedia map that draws readers into its shifts and folds, see Anna Lowenhaupt Tsing et al.’s *Feral Atlas: The More-than-Human Anthropocene*, which invites readers “to explore the ecological worlds created when nonhuman entities become tangled up with human infrastructure projects.”

¹⁶⁶ For instance, because of climate change—or a large-scale hydroelectric project.

The Collective's spatio-temporal revisionism undermines the colonial imaginary attached to conventional maps of the area that is now British Columbia's Lower Mainland and compels the reader to reorient themselves to the spaces pictured, to inhabit those spaces differently, and to take a broader view of the agents comprising them. *HMM*'s blue nodes invite and enable transit throughout this geographic area, recalling the stories and histories which document the shifts that have occurred therein. The marine waters pictured in *HMM*'s atemporal map of Vancouver are those praised by early city officials for the convenient means of waste disposal they provided to the city's early industries, a connection rendered visually—and made more palpable for the reader—by the superimposition of contemporary figures on a defunct shoreline. This atemporal mingling of geographic and figural elements reminds readers of the inextricability of humans from environment. Abelardo Gil-Fournier and Jussi Parikka echo this reminder when they write that “[w]e must attend to [the] immanent potentials of assemblages, active forms embedded in all sorts of material constellations between things” (5). Gil-Fournier and Parikka note that while in visual renderings what might appear two-dimensional or as a “thin layer only” in fact unfolds into depths that include movement, systems, and nonhuman life forms (5). This observation specifically references visual renderings of marine waters, and when applied to the renderings of bodies of water in *HMM*, this observation is particularly resonant of the “overlapping eco-social webs” of which Marlatt speaks.

False Creek and the Burrard Inlet stretch across *HMM*'s map of Vancouver and connect outside of its frame to the Strait of Georgia, the Fraser River, and, around the southern tip of Vancouver Island, through the Salish Sea to the Pacific Ocean. This area, and the geographic features it contains, was foundational to early European settlement and nation building efforts in

Canada¹⁶⁷; however, before False Creek was settled and logged (see Fig. 19), and before its eastern tidal flats were filled in¹⁶⁸ to accommodate the western terminus¹⁶⁹ of the transnational railway (see Fig. 21), its marshlands and the old growth forests that surrounded them were an important source of food for the Musqueam, Squamish, and Tsleil-Waututh peoples (see Fig. 20). The forests surrounding False Creek, and the grasses, willow, and crabapple trees that grew in its muddy shallows, provided an important hunting ground to the Coast Salish people (Luxton 7). “[W]ild cabbage and mushrooms” were harvested there (Maracle, “Goodbye” 208). The Creek’s sandbars provided shellfish, such as clams and oysters (Maracle, “Goodbye” 208), and its waters, essential to the salmon lifecycle in the area, provided not only salmon, but also “trout, flounder, perch, sole, sturgeon, and smelt” (Luxton 7). The creeks and streams that fed into False Creek’s eastern tidal flats provided an important source of fresh water to local Nations, and were home to some of the area’s largest salmon and trout runs. One early resident of the area recalled the creeks and their runs this way:

About the trout, you could get all you wanted. It cannot be explained to anyone now what it was like; they would not believe you. I do not think there was any place in B.C. where there were so many; ... Every one of the little creeks along the shore here was just full of trout. (“Mrs. J.Z. Hall” [1931], qtd. in Sharon Proctor 4)¹⁷⁰

¹⁶⁷ Although it is tempting here to compile a history of every inch of the geography comprising what is now known as Vancouver and of all the slow and violent displacements that have occurred there, others have done that well and thoroughly, and I need not do it again. For more detail on that history, see the works of Christine Mullins and Stanley Shapiro, Jean Barman, Derek Hayes, Michael Kluckner, Robert K. Burkinshaw, and Frank Leonard, among others.

¹⁶⁸ Luxton writes that “[t]he flats were filled with a variety of materials, including landfill removed from development projects in other parts of the city; scrap lumber and bricks from the surrounding mills; and general industrial waste” (32).

¹⁶⁹ Originally located at Port Moody, the railway’s western terminus was moved roughly 20 kilometres west to Vancouver after that city’s incorporation in 1886.

¹⁷⁰ For more on the impact of land development on freshwater fish species in British Columbia, see Jeannette Armstrong, Jeremy FiveCrows, Nancy Turner, Helen Clifton, and the pamphlet “Indian Fishing and its Cultural Importance in the Fraser River System.”

But the early, heavy industrialization of the area changed False Creek. Don Alexander and Brendan Hurley write that,

[b]y the turn of the [twentieth] century, the forests had been logged to feed the growing ring of sawmills on the Creek[,] and industry, such as locomotive repair, and residential development had begun to establish themselves on its slopes. Its waters, which still extended to Clark Drive, were increasingly filled with log booms, and the air had become sooty with the smoke from beehive burners[, which were used by the sawmills to burn sawdust]. (1)

In “Goodbye, Snauq,” Maracle recalls a conversation with Squamish Chief Khahtsahlano and mourns the environmental devastation of False Creek. She writes that the “shoreline is gone; in its place are industries squatting where the sea once was. ... [C]emented and land-filled structures [now] occupy the inlet” (207). She further observes that the “sea asparagus that grew in the sand along the shore is gone. There is no more of the camas we once ate. All the berries, medicines, and wild foods are gone” (207). By juxtaposing contemporary figures on the defunct shoreline of pre-infill False Creek, and by inviting readers’ proprioceptive emplacement within the spaces figured on this map, it is *this* history, and the social and ecological violations it recounts, that *HMM* sets out to make tangible to its reader.



Fig. 19. False Creek and the village of Snauq (visible on opposite shore), 1889. “Apart from the clearing evident on the left and the C.P.R.’s trestle rail bridge across the mouth of the Creek, the area would have appeared very similar to this prior to 1886.” Image from *False Creek*, Robert K. Burkinshaw, 1984.



Fig. 20. “Shoreline area of False Creek Flats.” Approximately 1904. City of Vancouver Archives, Item SGN 1115.



Fig. 21. “View of False Creek Flats east of Main Street, during fill.” 1917. City of Vancouver Archives, Item PAN N87.

In *High Muck a Muck*, what gives form to this history and context are the water systems. These systems frame and intersect the project’s maps and the functional, directional icons it locates atop the geographies represented by those maps, and they emphasize the connective tissue between reader and place. Dorothy Christian writes that, on the Coast Salish territories, the water in the Capilano, Seymour, and Coquitlam watersheds gets chlorinated and piped into our homes; moves through our bodies, hydrating and replenishing us, before being released into toilets; and is briefly and inadequately treated at the local sewage plants. Then, the water is released into the Georgia Strait, the Fraser River, the Burrard Inlet, and eventually the Pacific Ocean, to possibly evaporate up into the clouds in an infinitely dynamic hydrological cycle. (Wong and Christian, “Untapping” 240)

In this passage, the human body Christian pictures as participating in and even embodying a portion of the hydrological cycle is deeply embedded in its environment. More than that, however, the human body is but one element of an already complex, efficient, and intelligent system that long predates the human technologies designed to manage it. The defunct False Creek shoreline *HMM* pictures, like the adjacent Fraser estuary, is comprised of silt and

sediment layered upon the hard substrate, which is itself layered upon the seabed.¹⁷¹ In the sheltered coastal area of the pre-infill False Creek tidal flats, tides deposited silt, clay, and other organic material to create, over time, the fertile and sustaining ecosystem Maracle mourns in “Goodbye, Snauq.” Seeming to echo Maracle’s observations about the loss of biodiversity in and around False Creek, biogeographer Maarten Kleinhans and coauthors note the consequences of the human alteration of tidal zones: they write, “changes in tidal dynamics, salinity, and mud concentration as a result of the ongoing morphological response to ... reductions of intertidal area by land reclamations have resulted in the loss of valuable habitat and a reduction of the quality of these habitats” (6). In False Creek, the original transitional incline connecting marine water and land mass provided the conditions for the rich variety of life forms Maracle describes. Kleinhans et al. note, too, that the “fluvial-tidal transition” zone¹⁷² is an important feeding, breeding, and resting area for birds and animal species (3). In pre-infill False Creek and other tidal zones, the mudflats and salt marshes provided the transitional areas needed for “species occurrence and abundance,” and for the “various life stages [of] feeding and reproduction cycles” (Kleinhans et al. 3). The transitional sedimentary band between water and land was lost during the industrial fervour that descended upon False Creek in the late-19th and early 20th centuries. Also lost was the species diversity that characterized the area and sustained the Coast Salish people prior to that industrialization (Maracle, “Goodbye” 207). There is no such fertile transitional zone now along the edge of False Creek. Now, the Creek’s marine waters meet not a gradual sedimentary incline, but the hard barrier of an embankment (see Fig. 22). By placing

¹⁷¹ See Jorge Gutierrez, et al.

¹⁷² Numerous small creeks, such as China Creek and Brewer’s Creek, fed into False Creek before the eastern flats were filled and the neighbourhood developed. Some of these creek beds were filled in with debris and refuse during Vancouver’s early development; others were contained in sewer pipes that were then built over (False Creek Watershed Society and *Old Streams of Vancouver*, 1978).

contemporary figures along the defunct shoreline of early False Creek, *HMM*'s map of Vancouver draws the reader into the pre-infill tidal zone, into the flux of that original fertile transitional band, and into felt relation with the histories of that shoreline. The essential transitional band, and the variety of life forms and stages it bred, is lost to stark abutment, to the abrupt and non-negotiable delineation between water and land.¹⁷³



Fig. 22. The edge of False Creek today. Image by Kenneth Chan. Note that the gradual sedimentary incline of early False Creek has been replaced by the stark abutment of water against sea wall.

By way of conclusion to this chapter, I want to return to the water. Rita Wong and Dorothy Christian write that

[t]he dominant colonial systems we've inherited run on a somewhat predictable logic: capitalist, hierarchical, predatory, exploitative. But underneath them, quietly persisting,

¹⁷³ Non-negotiable *now*, that is. The City of Vancouver warns of rising sea levels and the risk of intense flooding (Climate Change Adaptation Strategy), and that “the king tides of today could be the high tides of 2050” (Angela Danyluk qtd. in Jon Hernandez).

are the watersheds and the underground streams, reminding us that another world is possible, and will indeed continue, with or without us. (“Untapping” 245)

High Muck a Muck: Playing Chinese foregrounds the bodies of water and other topographical features so fundamental to the places and spaces it figures and to the displacements, violations, and alterations that have long occurred therein. *HMM*’s emphasis on the tributaries, basins, and estuaries of the Fraser and the Columbia brings a geographical awareness to the project’s audience, embedding readers in its sedimentary composition. In this way, *HMM* works to undermine those hierarchical structures and to emphasize instead the relational structures extending over and through the strata of the project and of the waterways themselves. As a work of art, *HMM* is vast and intricately layered, and in my analysis of it I have struggled to contain the weight and sprawl of its many media, makers, and referents. But perhaps its sheer materiality is the thing itself: Perhaps, in its mass and multiplicity, *HMM* attempts to restore that which is lost, to the forces of time, industry, or oppression, and to assert the sensorial richness, historical complexity, and material solidity of the places, spaces, and structures it examines.

This chapter has argued that in *HMM*, rivers, migratory routes, mountain ranges, and other arterial forms and formations work collaboratively with the project’s multimodality to materialize relational structures and locate readers in the places, spaces, and contexts the project figures. In these pages, I have tried to demonstrate that *HMM*’s interactive and located multimodality cultivates in audiences proprioceptive reading practices and strengthens readers’ sense of the connective tissue which anchors them to the spaces and structures of the world. Metis artist and scholar David Garneau notes the difference between *reading* a work of art and *being engaged in* a work of art, and he observes the power of relationality in reframing and contextualizing historical narratives when he argues that while “[a]rt is not healing in itself, it

can be *in relation*” (38, emphasis added). In other words, Garneau suggests, the transformative power of art lies in the relational patterns it traces and builds between and among audiences, works, and subjects. Indeed, the act of “[s]haring in a discourse about histories, responsibility, and transformation,” he suggests, “is a corrective” to narrative singularity and perceptual fixity (38). *HMM*’s revisionist maps reframe the places they represent, bringing to the fore “quietly persisting” narratives that can offer a corrective to the inherited colonial systems and structures Wong and Christian observe (“Untapping” 239). In their project, Fred Wah and the High Muck a Muck Collective create what Latour calls an “assemblage of stories told, a multiplicity” (12)—a multimodal, sedimentary archive of the Fraser’s and the Columbia’s contexts that reassembles what Wah writes are the many “small pieces / Broken from a long stick” (“Canada,” *HMM*).

Conclusion

Lines and Lineages; or, the Impossibility of Still-Life

though she knows
the house's contours by heart,
the kitchen seems farther.

— Sachiko Murakami, “Hamartia”

In the course of analyzing the multimedia works this dissertation takes as its focus, I have thought a lot about the relational patterns that emerge from them and from the spaces, structures, and temporalities they treat. I have thought about the routes, lines, and arteries running through them; the maps, textures, circuits, and lineages inhering in them; and the histories, migrations, and (d)evolutions they recount. I have thought about the margins of these works, and the spaces between and overlaps among them. In this project, I have attempted to assemble a set of observational tools for registering and reading these patterns, and for documenting their emergence, however fleeting. In attending to these patterns, I have come, in a sense, to inhabit them, and to recognize the ways they run also through the perspectives I bring to my analysis. Tim Ingold writes that an inhabitant is not one who “take[s] one’s place in a world that has been prepared in advance for the populations that arrive to reside there”; rather, he argues, an inhabitant is “one who participates from within in the very process of the world’s continual coming into being and who ... contributes to its weave and texture” (*Lines* 81). So where *does* my project (and, by extension, where do I) fit into the vast network this endeavour has attempted to sketch? How is it (and how am I) implicated in the systems and structures mapped out in the digital works at hand? Perhaps not surprisingly, I will attempt an answer to these questions by a circuitous route.

I first started thinking along the margins of what would become the topic of this project in a graduate seminar with Robert Stacey, titled “Poetry and the Visual.” As part of an assignment for that seminar, I interviewed Fred Wah about the interactive poem *High Muck a Muck: Playing Chinese* and its roughly contemporaneous analog sibling, a collaborative gallery installation by the same title and undertaken by the same core collective of artists who created the online project. In our conversation, Wah explained how he and the other members of the High Muck a Muck Artists’ Collective were motivated by an interest in locating the intersection between performance and diasporic identity. They wanted, he explained, to explore the ways that one’s identity, and its expression, changes when one crosses geographic borders or other symbolic thresholds, and the ways such migrations effect a hybridity in the migratory subject. I had seen this gallery installation when it showed at Oxygen Art Centre in Nelson, British Columbia, a year or two prior to my conversation with Wah, and what struck me most about it at the time was its interactivity, the way it implicated the audience in its operation and denied them the possibility of passive viewing. The exhibit compelled audiences to activate certain of its elements by manipulating others, and, in doing so, viewers also engaged with one another, filling the gallery space with laughter and conversation. In addition to its interactive richness, the exhibit was also sensorily rich, filling a large gallery space with objects and effects that appealed to all the senses: plinths, projectors, screens, light boxes, audio equipment, lighting equipment, two-dimensional elements hung on wall surfaces, and an interactive Pak Ah Pu lottery game. The centre of the room was dimly lit in order to facilitate audience-activated visual projections (see Fig. 23). Upon entering the gallery, visitors stamped a Pak Ah Pu lottery card and inserted it into a small cabinet that read the card’s markings and projected images, poems, and sounds that told the visitor’s fortune (see Fig. 24). When not reading a fortune, the screen displayed the

installation's other video components, which featured dancers, puppets, and textual passages. In addition to being both projected digitally and presented textually as wall mounted elements of the installation, audio recordings of Fred Wah's poems were also played at intervals over the sound system. Wall mounted illustrations depicted the cityscapes of Vancouver, Victoria, Richmond, and Nelson, and some much larger or more amorphous places: Canada, the Pacific Rim, and "Everywhere and Nowhere" (see Fig. 25).



Fig. 23. *High Muck a Muck: Playing Chinese*, gallery installation, detail, Oxygen Art Centre (2014). Image credit: Agentic Digital Media.

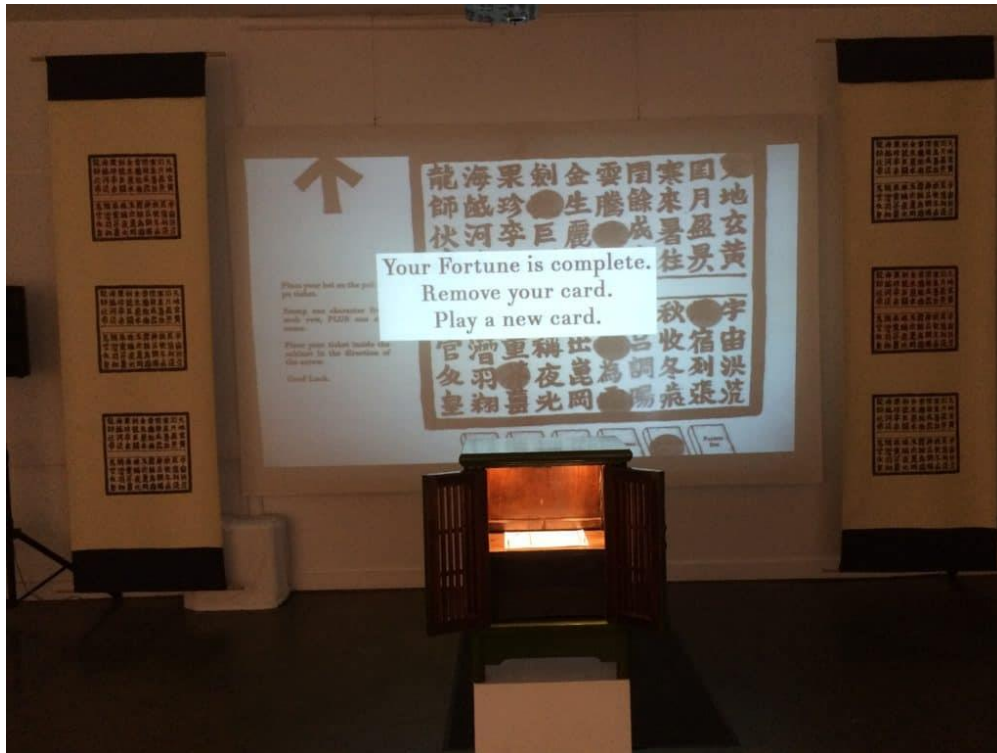


Fig. 24. *High Muck a Muck: Playing Chinese*, gallery installation, detail, Oxygen Art Centre (2014). Image credit: Agentic Digital Media.



Fig. 25. *High Muck a Muck: Playing Chinese*, gallery installation, detail, Oxygen Art Centre (2014). Image credit: Agentic Digital Media.

In both its analogue and digital forms, *High Muck a Muck* sparked for me a curiosity about the affordances of collaborative multidisciplinary that animated and sustained the present project. In this dissertation, I have aimed to sketch the shifting contours of an emerging genre of multimodal, spatially located, collaboratively produced Canadian digital literature whose interactivity, I have suggested, attunes its readership, across national borders, to the ecological, economic, industrial, and cultural complexities of the spaces and structures these works examine. I have argued that this genre presents indeterminacy and flux as modes for navigating the challenges marking our current geological era. I have read the works comprising this genre with a particular attention to the material, geographic, and spatial concerns running through them, including the forms of decline and obsolescence to which they refer. In the course of tracing the routes and impulses running through and between these digital works, I have also traced their intersections with a range of fields—from the social sciences to the natural sciences—whose consideration here promotes the whole systems view I have taken toward this genre and its spaces, structures, and sympathies. Given the components of this emerging pattern, it is important to note that the impression produced by my project here is but a snapshot in time. The pattern I have sketched can never be what Doreen Massey calls that impossible “completed simultaneity in which all interconnections have been established [and] in which everywhere is already (and in that moment unchangingly) linked to everywhere else” (*For Space* 107). Each chapter in my project thus represents a moment in time, and the configuration of elements therein is sure to have shifted since its writing.

In each of the four chapters of this dissertation, I examined a digital work that itself occupies the space between the ephemeral and the concrete. Each of those works attends to its own materiality and experimental formation; each attends to concerns related to dispossession,

disposal, dislocation, and dispersal; and each compels audiences to interact in an embodied and located way with the forms and subjects it represents. My first chapter examined the way *Project Rebuild* constructs an ecology that reflects Vancouver's own complex of economic, social, and material structures, infrastructures, and spaces. I argued that the work's interactive multimodality draws readers into a productive contingency that reimagines social, material, and economic relations in Canada more equitably. The second chapter considered the ontologically varied agents implicated in creative and artistic processes such as 3D printing in order to call for a more responsible use of materials, resources, and technologies. I argued that, taken together, the gaps and absences of which *Loss Sets* is composed function as a metaphor for loss that provokes in audiences a pre-emptive nostalgia for eroded natural spaces and pure language—a nostalgia tinted with irony, considering the work's own dependence upon deposition modelling. In the third chapter, I read *Vancouver of the Mind*'s decaying structure as a living document whose degeneration has produced a lively and idiosyncratic analogue to the displacements and mutations the work observes in Vancouver itself. I argued that the project addresses the city's longstanding record of displacement and dispossession by formal and structural means, creating through its heterogeneity and dissolution an archive of the in-between and the provisional that is reflective of the gaps, absences, and injustices occurring in and emerging from its spatial focus. The final chapter traced the patterns of kinship and relation running through and across the geographies represented in *High Muck a Muck: Playing Chinese*. I argued that, in conjunction with the project's multimodality, the arterial forms present in the work materialize relational structures, embedding the reader in the spaces the work figures and their current and historical contexts. Ultimately, my goal in this project has been to map the inter-influential resonances of humans and non-humans across the literary genre delineated herein and across the network of

ecological, economic, industrial, and cultural contexts and histories inhering in and circulating through the spaces and structures this body of work examines.

Where, then, does this project fit into the network it has attempted to sketch, and how is this project implicated in the systems and structures mapped out therein? Over the years of its research and writing, this dissertation has consumed thousands of kilowatt hours of electricity, and many more cubic metres of natural gas. These units of power, generated or extracted and originating in dammed rivers or the sedimentary substrate, have run through cables, pipelines, circuits, and transformers across myriad geographies to heat my office and power my computer. This project has been fuelled, equally, by the food and coffee I have consumed in the writing of it, sustenance more often than not produced in, and shipped from, distant parts of the world, where the climate is more amenable to its production. The money I have spent on these resources and utilities in the course of researching and writing this project has circulated through and (in some small way) contributed to the bottom line of national banking systems and the unfathomable investment structures by which financial institutions make their profits. In its use of interlibrary loans, this project has contributed (again, in a small way) to both the workload and the funding structures of public institutions (universities and archives) and at least one crown corporation (Canada Post). It has also drawn on the workings and affordances of digital databases and archives, leaving its trail of crumbs across the Internet. In its use of these and countless other resources, networks, and materials, how—if at all—is this dissertation different from the energy-hungry deposition modelling endeavours described in chapter 2 of this project? How—if at all—is this project motivated differently from that of Douglas Coupland’s “National Portrait,” whose stated reason for being is the unfettered pursuit of human impulses, irrespective of the cost, ecological or otherwise.

To help me answer these questions and locate my project in the larger network, I return to Rita Wong, who urges readers to be “attentive to building relations with others, human and nonhuman,” and to *position* themselves in relation to those others (“Untapping” 249). Such a positioning runs in opposition to the kind of “tinkering for tinkering’s sake”¹⁷⁴ advocated by Coupland and other 3D printing enthusiasts. Instead of an expression of anthropocentric impulsiveness, it is an attempt to attend to relational patterns that, in the course of daily life, are so easy to ignore. By endeavouring to map the relational structures running through and across the ontologically pluralistic bodies and interests comprising the works this project studies, I locate myself—my own body and interests—among them, and attend to my own embeddedness in the larger complex/self¹⁷⁵ Larissa Lai describes (“Saturate/Dissolve” 262). Lai writes that this complex “is a thinking self, but also an animal self. It is a raced and cultured self, a subject of history, and also one embedded in contemporary economic flows” (“Saturate” 262). This view underscores my own implication, alongside all implicated others, human and nonhuman, in the literary works studied here and the subjects, spaces, and systems they treat. But by including myself in this collectivity, and by reading the ways that collectivity runs through me, I am not simply seeking a straightforward position of safety: implication in the network means also being held accountable for one’s role in the current and historical dispossessions and displacements that have occurred therein. In positioning myself thus, I am invoking Wong’s notion of allyship,

¹⁷⁴ See Boggs et al. 324.

¹⁷⁵ While Lai’s reference to the “complex self” omits the oblique stroke, I am adding it in my references to her formulation for two reasons: first, to disable the possible reading of “complex” merely as an adjective describing the noun “self” (i.e., *the human self is complex*); and, second, to emphasize instead a reading of this formulation that is more attuned to its structural and architectural connotations. By joining Lai’s two words with the oblique stroke, I aim to underscore the relation between them, the ways the self is both a structure and a construction, and the ways structures encompass the human subject. Through this punctuation, I suggest that these things, the self and the complex, are two parts of a whole.

which she uses to position herself *in relation to* water, a form of kinship that has the capacity to “reorganize our structuring of self-identity” (“Untapping” 249).

What I intended to do in this project was to step back and apprehend the whole system, in which the subjects of my individual chapters—and my dissertation itself—take their places. I wanted to map all its patterns, the movements that occur within it, the directions those movements take, and all the geographies, histories, and contexts to which its moving parts refer. I wanted, in some way, to render the genre under study here three-dimensional, in order to be able to hold it up and examine it from all angles, and to see into the spaces between its elements, to watch those parts merge and separate and merge again. In 1911, Scottish naturalist J. Arthur Thomson wrote that “when we work long at a thing and come to know it up and down, in and out, through and through, it becomes in quite a remarkable way translucent” (n.p.), but as I look over the chapters of this project and the network they sketch, I am struck by their unexplored edges, by the loose threads only now emerging, and by the areas where opacity—not translucency—lingers. Like each of its chapters, this dissertation as a whole presents only a partial picture of the network it sketches, only a momentary glimpse of an ever-shifting and ever-emergent pattern.

There are elements of the works under study here that I would have liked to capture in this project but did not. I did not, for instance, have the time to map *all* the spaces and structures to which the literary works examined here refer. I would have liked to chart the complexities and intersections in the High Muck a Muck Collective’s treatment of “Everywhere and Nowhere,” “Victoria,” “Richmond,” and the “Pacific Rim,” which are so full of interpretive potential. I would also have liked to more closely attend to the artistic media present in the digital works studied here—to consider for fully, for instance, what the media present in Thien’s work say

about the spaces and structures that project addresses. These and other gaps indicate that there is still much to be done in attending to the shifting patterns continually emerging from these digital works, and I am left to contemplate the many necessary omissions and partialities of this dissertation.

As I have suggested, however, omissions and partialities are, in this project at least, the thing itself, and a complete and static picture of the network—a comprehensive still-life—would at any rate be impossible. It is the continual unfolding to which I have attended here, an unfolding which while possible to perceive as a “problem” is also a rich and ever-shifting synthesis. Bethany Nowviskie aptly—and beautifully—subsumes the reader-scholar into this shifting complex when she writes,

[t]he problem is that of extinction—of multiple extinctions; heart-breaking extinctions; boring, quotidian, barely-noticed extinctions—both the absences that echo through centuries, and the disposable erosions of our lossy everyday. We edit to guess at a poet’s papers, long since burned in the hearth. We scrape through stratigraphic layers of earth to uncover ways of life forgotten, and piece together potsherds to make our theories about them hold water. Some of us model how languages change over time, and train ourselves to read the hands that won’t be written, anymore. Others promulgate standards to ward against isolation and loss. With great labor and attention, we migrate complex systems forward. We redesign our websites and our tools—or abandon them, or (more rarely) we consciously archive and shut them down. [We] peer with microscopes and macroscopes, looking *into* things we cannot *see*. And even while we delight in building the shiny and the new ... we know that someone, sooner or later, curates bits against our ruins.

(“Digital Humanities in the Anthropocene” n.p., emphasis original)

This description points so vividly to the persistence of change and the impossibility of still-life as a mode or aspiration, and I quote it so fully here in order to return, at the close of this project, to my initial desire not to render static the shifting parts of the works under study here, but rather to attend to and delight in the disjunctures and omissions circulating through the works and my analysis of them.

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