Rendering museums:

An inquisitive and imaginative a/r/tographic quest into the potential of museums

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In memory of my grandmother

Abstract

This study is an inquisitive and imaginative quest into the potential of museums with the aim of understanding the ways in which museums could become more relevant in relation to their audiences. On a theoretical level, the inquiry provides an in-depth exploration of John Dewey's theorizing, constructivism, and museum studies theories to further understand learning and experiences in museums. On a methodological level, it extensively engages with a/r/tography's six renderings, openings, living inquiry, metaphor and metonymy, contiguity, excess, and reverberations, as means of instigating multimodal explorations of museological learning and experiences. Through a strong interplay between theory and method, the research embodies my museum practitioner, artist, researcher, and teacher lenses as represented in theorizing, art-making, and writing. As a result of my textual analysis and artmaking, this study unveils three main contributions: Theoretically, I introduce the Experience Factors Model (EFM) which expands on the understandings of museum experiences as pioneered by the work of John Falk and Lynn Dierking (1992, 2013). I also conceptualize the Experience-centric Learning Web (ELW) which captures the multidimensional qualities of learning processes in museums and contributes to new theoretical understandings of experience-centric learning. Methodologically, by attending to the six renderings, I fill a gap in the literature resulting from a/r/tographers rarely engaging with all renderings (Sinner, 2017). Museologically, I present the idea of a network of in-betweens which contributes by introducing the contiguous everydayness as an emergent understanding for the potential of museums.

Résumé

Cette thèse est une quête investigative et imaginative du potentiel des musées dans le but de comprendre de quelle manière les musées pourraient devenir plus pertinents par rapport à leurs publics. Au niveau théorique, la recherche propose une exploration approfondie des théories de John Dewey, du constructivisme et des études muséales afin de mieux comprendre l'apprentissage et les expériences vécues dans les musées. Au niveau méthodologique, la recherche utilise les six représentations de l'a / r / tographie : les ouvertures, la recherche vivante, la métaphore et la métonymie, la contiguïté, l'excès et les réverbérations. Ces représentations sont utilisées pour illustrer mes identités en tant que praticienne en muséologie, artiste, chercheuse et enseignante, ainsi que la manière dont ces identités participe à la théorisation, la création artistique et l'écriture dans ma recherche. Grâce à une interaction constante entre théorie et méthode sous forme d'analyse textuelle et de création artistique, cette étude crée un écho théorique en mettant de l'avant le modèle des facteurs d'expérience (EFM) et le web d'apprentissage centré sur l'expérience (ELW), elle résonne méthodologiquement à travers l'utilisation des six représentations en comblant les lacunes dans la littérature, et elle produit une réverbération muséale en introduisant l'idée d'un réseau d'intermédiaires comme compréhension émergente du potentiel des musées.

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Table of Contents

List of Figures

INTRODUCTION

The Quest

Inspired by my work as a museum practitioner and my curiosities toward understanding the potential of museums, this research explores what it means to experience a museum today with the aim of formulating what it might mean to experience a museum tomorrow. I focus my study on understanding the theoretical and contextual underpinnings of museum learning and experiences, given their paramount roles in shaping museological experiences in practice (Falk & Dierking, 1992, 2013; Hein, 1998). I specifically use John Dewey's (1916, 1934, 1938) theorizing about the centrality of experiences to learning, constructivism (Hein, 1995b, 1998; Pass, 2004), and museum studies theories (Bennett, 1995; Falk & Dierking, 1992; Hein, 2006b; Hooper-Greenhill, 2000) to theoretically and contextually frame my research. Whereas, methodologically, I employ a/r/tography because it acknowledges the fact that the "horizons of inquiry are our everydayness and our immediate participation in daily life" (Meyer, 2010, p. 86). It is also a method that promotes multimodality through the use of art and text (Carter & Irwin, 2014; Irwin, 2010), which in return embraces my textual research and creative practices as well as complements the museum's visual and textual nature.

Between theory and practice, this research is an inquisitive and imaginative quest. In a/r/tography, inquiry is steered by the notion of the quest (Siegesmund, 2013), which permits research questions to emerge and evolve as the journey proceeds (Kincheloe, 2005; Leggo, 2004). Hence, the question that guides the study is not meant to limit the scope of inquiry but rather serve as an instigator for my research quest:

What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences?

I embark on this research quest with the aim of tapping into new ways of looking at the potential of museums in order to discover how museums could become more relevant in relation to their audiences. However, in order to achieve new understandings of the museum's potential, it is imperative to re-explore and re-understand the fundamentals of the museum existence as learning-focused and experience-centred spaces (Ansbacher, 1998; Dewey, 1938; Falk & Dierking, 1992), as well as re-search and re-cognize the ways in which museums reposition themselves in relation to their visitors. Through this study, I contribute to existing literature by employing a/r/tography as a fresh lens to understand the potential of museums.

Context and Approach

> *A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.*
>
> (International Council of Museums, 2007, art. 3, sec. 1)

Within the last 40 years, museums have been actively working towards establishing their relevance by becoming responsive institutions that cater to the needs of their varied audiences (Bennett, 1995; Sandell, 2002; Silverman, 2002). Becoming responsive translated into recognizing the centrality of the people to the museum existence and accordingly becoming visitor-centred rather than object-centred (Latham & Simmons, 2014). This move signalled a preference for constructivism as the guiding theoretical framework for museological endeavours (Dierking, 1991; Falk, 1999; Hein, 1998; Hooper-Greenhill, 1992). Since adopting a constructivist approach, museums started acknowledging the centrality of experiences to learning

as well as the significance of the visitors' active participation in their learning processes (Dewey, 1938; Hein, 1995b, 2012; Rummel, 2008). The visitor-centred approach heightened the public's museological interest and resulted in "more people go[ing] to museums than ever before" (Marstine, 2006, p. 3). Within the Canadian context, it translated into a recognizable increase in museum attendance (Department of Canadian Heritage, 2017). However, recent research shows that despite the overall attendance surge, over 50% of Canadians do not go to museums (Hill, 2019). This presents an opportunity to explore the ways in which understanding the potential of museums could render museums more relevant and accordingly appeal to a wider audience.

Theoretically guided by Dewey's (1934) suggestion that "imagination enables new experiences to enter and connect with prior knowledge" (Bedford, 2014, p. 81), I inquisitively delve into understanding the theoretical, conceptual, and contextual premises of museum-based learning and experiences. This inquisitive exploration is meant to open new ways of knowing in order to imagine new possibilities for the potential of museums: "Empiricism knows the past, but imagination anticipates and creates the future" (Poe & Davis, 2012, p. 277). Methodologically guided by a/r/tography, which is "embedded in imagination and experimentations" (Springgay, 2008, p. 9), I intend to use my art and text as an "inclusive way of telling research" (Leggo et al., 2011, p. 250). I do so in hopes of inviting a multimodal interaction with my work. In employing a/r/tography, I count on its affordability to warrant me the space to subjectively situate myself within the study, to incorporate my professional and artistic practices alike, to build on my lived experiences, and to acknowledge my personal interests and prejudices (Leggo et al., 2011; Meyer, 2006, 2010, 2012; Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006; Springgay, Irwin, & Kind, 2005).

Personal Situatedness

The real work of an artist is to build up an experience that is coherent in perception while moving with constant change in its development.

(Dewey, 1934, p. 53)

I am a museum practitioner by profession, an artist by passion and education, a teacher as a professional offshoot, and an academic researcher in the making. As a museum practitioner, my work revolves around the experiences a museum offers the visitors. In line with the philosophical underpinnings of constructivist epistemology (Ansbacher, 1998; Dewey, 1938; Dierking, 1991; Falk, 1999; Hein, 1995b, 1998), I am invested in placing museumgoers and their needs at the heart of my curatorial planning, exhibit design, and overall institutional development. Accordingly, I theoretically frame my research through a *constructivist theory* lens, which inherently links *learning* and *experience* in its epistemological and conceptual underpinnings (Ansbacher, 1998; Falk & Dierking, 1998, 2000). I also heavily rely on *Deweyan philosophies* (Dewey, 1934, 1938) to explore museum experiences in relation to learning. I specifically focus on Dewey's work due to the centrality of experiences to his theorizing and his empirical influence on shaping constructivism in museum studies literature (Ansbacher, 1998; Hein, 2004; Monk, 2013; Stroud, 2014). To echo my museum practitioner voice in this research quest, I infuse the works of influential theorists like John Dewey (1938), John Falk (1999), and George Hein (1998) with the contributions of museum practitioners from the late nineteenth century progressive movement, which include Louise Connolly (1914), John Cotton Dana (1917), Anna Billings Gallup (1907), and Delia Griffin (1907). The practitioner voice is a voice that has mostly been muted or suppressed in the literature despite the fact that the real-life

experiences of museum practitioners help inform the theories that guide the museum institution. It is my endeavour to try and bridge the gap between theory and practice in terms of museological experiences and constructivist learning theories.

As a studio-trained artist, creativity and imagination are at the epicentre of my artful practices. Producing art is a process that affords experimentation and the engagement in random causal reactions that unknowingly emerge while practicing, in contrast to being pre-determined (McNiff, 1998). As a result, art becomes a means to continuously discover new ways of doing and knowing without setting an intention to purposely do or know something. I correspondingly choose an arts-based route to channel the exploratory qualities of art in my research quest. Arts-based methodological approaches denote that the "artist/researcher must understand making art as a process of discovery" and "be willing to be educated – indeed to be transformed – in that process" (Barone & Eisner, 2012, p. 134). I specifically choose a/r/tography because it positions creativity and criticality at the epicentre (Carter, 2014b; Irwin, 2008a; Irwin & Sinner, 2014; Sullivan, 2010). It also emphasizes the multimodality of practicing and disseminating research through art and text (Irwin, 2010). This will warrant a space for me to channel the voices of my artist/researcher selves, which in return will enrich the research through a set of multimodal forms of inquiry and expression.

As a teacher/educator in the university and museum settings, I facilitate the dissemination of complex concepts and demonstrate the application of artful processes. Facilitating the process of learning is a multimodal undertaking that requires the meeting of the rigour of research and the flexibility of creativity. My teacher/educator moments correspond to the philosophical underpinnings of arts-based methodological approaches which support the possibilities of

understanding and sideline the absolutes of knowing (Barone, 2006b, 2008; Siegesmund & Cahnmann-Taylor, 2008). As a teacher/educator, I mediate the process of coming to knowledge rather than dictate what constitutes knowledge in order to afford the learner a personalized contextualization and meaning-making process. This aligns with the theoretical premise of constructivism which promotes learning through individual meaning-making (Hein, 1991, 1999; Jeffery-Clay, 1998; Stupples, 1981). It also corresponds to a/r/tography's philosophical construct, where inquiries do not seek finite or specific answers but rather explore the liminal to create new meaning-making opportunities (Carter & Triggs, 2018; Irwin, 2010; Springgay, Irwin, & Kind, 2008).

My museum work allows my artist/researcher/teacher multiplicity to intertwine and interplay when creating new exhibits, echoing the rhizomatic existence denoted by a/r/tography (Carter, 2014b; Irwin et al., 2006). I consider my museological practice part of my artistic and educational practices because I draw on my backgrounds of being a studio-trained artist and a teacher/educator to complete my work as a museum practitioner. I employ my artistic skills to imagine, design, and curate an exhibit, and I use my teacher/educator abilities to distil, package, and disseminate the exhibit's subject matter.

Given that this study contextualizes my lived experiences in understanding learning and experiences in museums, I cannot disassociate my multiple existences as an artist, researcher, teacher, and museum practitioner when engaging with my research. This is why an *a/r/tographic lens* provides a most suitable methodological framing because it lives in the liminal in-betweens of the multiple identities we assume as artists/researchers/teachers and lingers in the visual and

textual as embodied in the interrelatedness of image and word (Irwin, 2004, 2008b, 2010; Irwin & Springgay, 2008; Leggo et al., 2011).

A/r/tography is an arts-based methodology that breaks the linearity of paradigms, transforming the traditional, dogmatic relationship between theory and practice into a research process that is "fluid, uncertain, and temporal" (Springgay et al., 2005, p. 908). Hence, as a method, it acknowledges the entanglement of theory and practice and creates a platform that facilitates the bridging of gaps. It also mirrors life's undefined intricacy, offering a fresh, intuitive, multimodal approach to undertaking research, and accordingly understanding the world. I am embarking on this inquiry quest to further contribute to the critical global discourse of the potential of museums, while facilitating a reflective personal conversation about my being in and with museums.

A Case for Museums

In 1968, the historian Wilcomb Washburn questioned whether museums are still necessary (Roberts, 1994; Watkins, 1994), and fifty years later, museums are still thriving, evolving, and becoming more relevant and pertinent as learning, cultural, social, and leisure hubs (Black, 2005, 2012; Falk & Dierking, 1992, 2013; Hooper-Greenhill, 2000). By taking a closer look at the numbers, we can deduct how this relevance is manifesting itself in terms of visitor reach. Within the Canadian context, museums have an "enormous" economic and social impact (Canadian Museums Association, 2016, p. 3), and are considered "an important part of the fabric of our country" (p. 2). According to the latest survey by the Department of Canadian Heritage (2017); Canadian museums attracted 31.5 million visitors in 2015. Museums are also the most

frequented type of institution by school groups, constituting 59% of class excursions (Canadian Museums Association, 2016).

The significance of museums is not only exclusive to the Canadian context but is also internationally manifested and recognized. American museums, for example, attract approximately 850 million physical visits, which is more than all major league sporting events and theme parks attendance combined (American Alliance of Museums, 2014). By 2006, American museums received an additional 524 million annual online visits, and the numbers have been growing since (American Alliance of Museums, 2014). In the United Kingdom, eight of the top ten visitor attractions are museums, with likely over 100 million visitors a year (Museums Association, 2010). In the Netherlands, museums "are attracting an increasing number of visitors" with numbers increasing 6% from 1997-2007 (DSP groep, 2011, p. 13). These are just a few examples to showcase the importance of museums in people's leisure and cultural activities.

This begs to further understand the reasons why museums are significant to a large segment of society. In a survey commissioned by the Canadian Museums Association, 91% of respondents believed that museums offer a "window on our souls", since "museums provide us with a valuable learning experience about our collective heritage as Canadians" (Innovative Research Group Inc., 2008, p. 7). The same survey indicated that 88% agreed that museums offer a "window on the world", since they "expose and provide us with a valuable learning experience about other cultures around the world" (Innovative Research Group Inc., 2008, p. 8). According to an Australian museum visitor survey, this keen interest in museums is rooted in a belief that museums entertain as well as offer new experiences and learning opportunities (Kelly, 2003). In another Australian phone survey, 76% of respondents considered museums and galleries as vital

resources for learning (Kelly, 2003). Comparable results came out of a Europe-wide survey, with 43.2% of respondents identifying an entertaining experience as their reason for visiting a national museum, while 39% stated learning as their motivation for visiting (Bounia, Nikiforidou, Nikonanou, & Matossian, 2012). Also, research shows that most visitors attend museums to primarily learn and experience new things (Falk, Moussouri, & Coulson, 1998).

Nevertheless, museums are not only frequented as a leisurely activity, but schools and universities regularly organize museum visits as part of their educational repertoire. According to a United Kingdom based study, 94% of teachers consider museums important to their teaching because they believe museums enable their students to feel more positive about learning (Research Centre for Museums and Galleries (RCMG), 2007). According to the same study, 90% of the surveyed students expressed that they enjoyed their museum visits and that they thought they learned something.

The aforementioned results exhibit the museumgoers' recognition of the museum's relevance as an establishment that offers learning and/or entertaining experiences. However, the caveat lies in the fact that the museum's relevance only resonates with those who actually visited the museum. Ergo, the non-museumgoers remain unaware of the potential that lies in visiting a museum. This is why it becomes necessary to re-explore the current understandings of museological learning and experiences in order to unearth new understandings of the potential of museums in attracting non-museumgoers.

The Gap

Museum institutions operate for the public and exist because of public support (Freedman, 2000; International Council of Museums, 2013), and within the Canadian context

"museums are extremely valued by the public" (Canadian Museums Association, 2016, p. 1). In terms of public support, specifically in Montreal, museums and exhibit centres received 1.3 cents from every tax dollar paid in 2012 (Services des finances, 2012). Additionally, as indicated in the 2013-2015 Three-Year Capital Plan (2012), the city of Montreal invested $180.8 million in culture, heritage, and public property. However, according to the latest demographic breakdown survey, only 29.9% of Quebecers with children attended museums; a figure that is 3.7% lower than the Ontario average, 6.3% lower than the Saskatchewan average, and 10.8% lower than the British Columbia average (Hill Strategies Research Inc., 2003). It is important to note that families with children make up 42.4% of Quebec households (Statistics Canada, 2012). Children are a vitally important component of the visitor demographic, since they constitute the future and potential of the museum existence. The 2003 attendance numbers have been recently reconfirmed by a 2019 general attendance survey indicating that over 57% of all Quebec households do not go to museums (Hill, 2019).

The Canadian Museums Association (2016) acknowledged that museums around the world are "engaging in new innovative activities and programs" to increase their accessibility and relevance within the community, yet there is "not an overarching vision of the sort for Canada" despite some institutions making individual efforts in that respect (p. 10). Within these efforts to become relevant, there is a persistent need to imagine the museum's potential in order to formulate a vision. Building on Dewey's (1934) philosophizing about the connection between imagination and prior knowledge, a nexus reverberates between the understanding of the foundations of museums and a probable vision for museums. As such, re-visiting the philosophical and conceptual underpinnings of the museum establishment presents an opportunity to uncover an overarching vision for Canadian museums. This prospect of

reconsideration in the Canadian museum scene could potentially increase the chances of public investments reaching their target audiences. The possibility of capitalizing on the museum's potential could also create more ways of engaging with the museum.

According to a survey commissioned by the Canadian Museums Association, 44% of people who virtually visited a museum website followed up with a physical visit to the museum itself; 74% of those visitors were under 18 years of age (TeleResearch Inc., 2003). Deductively, if virtual engagement with the museum can trigger enough intrigue and curiosity leading to actual visits, then there is great potential in harnessing the power of a museum existing beyond its assigned physical presence. My arguing premise postulates that museums should not only offer virtual experiences to attract more visitors, but they should also offer physical museological experiences beyond their spatial perimeters to increase intrigue, familiarity, and accessibility. Furthermore, by targeting audiences under the age of 18 years, museums would be investing in the future generation of museumgoers. My reasoning posits satellite museum experiences as pathways that would eventually lead the audience back to the museum institution. As a result, in operational terms, if Montreal museums start investing in more outreach models, they would then be addressing 43% more potential visitors. In consequence, museums would be capitalizing on more probable income, which would positively contribute to the economy of scale through which museums function (Frey & Meier, 2006).

Researching A/r/tographically

A/r/tography describes the acts of research and investigations in relation to lived experiences, whether personal or global. Often, research questions are a reflection of a complex hybrid of our personal, political, social, cultural, educational, environmental, and/or professional

curiosities (Sinner et al., 2006; Springgay et al., 2005). Personally, I cannot approach my research in isolation of my daily existence; I cannot disassociate from my identities beyond being a researcher; and I cannot deny my general curiosities from shaping my inquiry. Moreover, I cannot objectively examine the ideas and theories that guide museums when I have spent most of my professional career working in museums and galleries. This active involvement in the museum field instilled in me pre-conceived notions and stances towards the museum establishment. In return, this renders me empirically impartial. I know that I cannot separate the personal and professional, the theoretical and practical, as well as the intimate and public. Considering that I acknowledge and value the subjectivity of a research quest, I engage with a/r/tography as a method that is "dynamic and fluid, not static and sealed" (Leggo et al., 2011, p. 250).

Engaging with a/r/tography means embarking on a research that regards lived experiences as a means for deeper understanding (Leggo et al., 2011; K. Meyer, 2006, 2010, 2012; Sinner et al., 2006; Springgay et al., 2005). A/r/tographic inquiry does not only allow for experiences to be lived, discovered, evaluated, and framed into research, but also to be re-lived, re-discovered, re-evaluated, and re-framed to generate new meanings. This process of inquiring into lived experiences, of re-living and re-discovering experiences, ignites excitement and builds enthusiasm for our work (Leggo et al., 2011). Research starts morphing from a distant and detached process into an "intimate experience" (Meyer, 2012, p. 122). To me, the intimacy brings about more dedication, rigour, and enjoyment to the research quest, and consequently produces profound, fresh, and genuine research outcomes. Despite the fact that a/r/tographic inquiry is fundamentally about the self, it is also about the self in relation to the world, and this relational positionality creates global relevance to the work (Leggo et al., 2011; Sinner et al.,

2006). However, the burden falls upon researchers to find "the research that matters *to* them but that also matters *for* others" (Chambers, 2004, p. 7). Researchers do not exist in isolation from the world; our work is a result of our relational lived experiences within the broader existence.

The relational nature of a/r/tographic inquiry posits life as ever-changing, thus leaving researchers in a permanent state of not-knowing and answer-seeking (Siegesmund, 2014; Springgay et al., 2005). It allows researchers to ask complex questions that could not be answered in linear and compartmentalized methods. Much in line with the dynamic and unpredictable nature of arts-based methodology, it also permits research questions to change along the inquiry (Kincheloe, 2005; Leggo, 2004). In essence, engaging with a/r/tography means "embrac[ing] erasure" which grants a/r/tographers the flexibility to re-shape their work to highlight newfound meanings and understandings (Siegesmund, 2013, p. 141). As a result, a/r/tographic inquiry eliminates research absolutism in an attempt to reflect life's lack of consistency.

A/r/tography and Museums

Much like museums, a/r/tography grapples with understanding the world and portraying it in ways that create new meanings. The conceptual framework of a/r/tography aligns with the constructivist epistemology that governs museums: both acknowledge the importance of meaning-making from our experiences. In museum settings, it is vital to account for the visitor's own meaning-making in and beyond the museum (Falk, 1999; Hein, 1991, 1999). In a/r/tography, engaging in an a/r/tographic inquiry is considered a process of meaning-making through body, mind, and soul expressed in text and image (Springgay et al., 2005). An a/r/tographer immerses themselves in the research and artful practices that unfold along the

inquiry journey. Within the bigger situatedness of a/r/tography in the arts-based research framework, Maxine Greene (1977) suggested that we are always involved in our aesthetic experiences as "beings in pursuit of meanings" (p. 293). This alignment in philosophical underpinnings warrants a space for the interrelatedness of the theoretical and methodological frameworks to thrive.

A/r/tography also appreciates and promotes subjectivity (Sullivan, 2010), which leads to individualized meaning-making processes. This is reiterated in museums through constructivist approaches, specifically constructivist learning philosophies which facilitate individualized meaning-making and learning processes (Dewey, 1938; Falk & Dierking, 2000). Unlike other methods, a/r/tography, as an arts-based method, explores the tensions that might arise from subjectivity, and consequently forms new ways of looking at the world. These tensions could manifest themselves in the process of newer understandings replacing old-founded notions, in the colliding of individual subjectivities of multiple collaborators, in the meeting of the rigour of academic writing with the fluidity of artful expressions, and in the fusion of the clarity of the academic genre with the suggestive nature of art. The push and pull in those spaces of tension "are inevitable in an a/r/tographic inquiry for a/r/tographers recognize the need to pay attention to tangents, to interruptions, and to unsettling conversations" in order to challenge any "underlying assumptions and beliefs" that could prevent an inquiry from taking an unanticipated course (Irwin et al., 2006, p. 75). These unanticipated occurrences and new opportunities that present themselves through practicing a/r/tographically are pathways for looking differently at museological learning and experiences in order to uncover new understandings of the potential of museums.

The Structure

My first a/r/tographic act is embodying my museological practice in my academic undertaking by curating this body of work in a way that mirrors a museum experience. The overall organization of the study is modelled after the concept of thematic museum displays which afford the audience more agency and flexibility in exploring an exhibit (Maximea, 2014) (see Exploration 3 for more details about the symbolic meaning of the anatomical structure). The museum-inspired arrangement equally underlines the significance of lived experiences in and with a/r/tographic research: I am experiencing whilst creating an experience and in that practicing a/r/tographically (Irwin & O'Donoghue, 2012; Irwin & Springgay, 2008). I am simultaneously offering the reader/audience an opportunity to vicariously experience my a/r/tographic practice and accordingly create and engage with their own lived experiences (see Exploration 1 for more details about the anatomical structure).

This research quest is a curation of thoughts, expressions, impressions, and understandings, where the theoretical, conceptual, contextual, and methodological frameworks are weaved in and run through the six chapters/explorations. I curated this research to be experienced as a whole or in sections. My poetic musing attempts to capture the symbolic qualities of my research arrangement:

There is no linearity, yet it stays linear in its totality.

There is no certainty, yet it rests certain in its entirety.

There is no dreaminess, yet it remains dreamy in its capacity.

Explorations

Structurally, I curate the study as six 'explorations' that employ the individual qualities of each of the six a/r/tographic renderings to respectively frame an in-depth thematic study relating to understanding learning and experiences in museums, whether individual/personal or museological/global: Openings address the conceptual makeup of the research, living inquiry examines the theoretical framework that governs museums, metaphor and metonymy frame a/r/tography as a method, contiguity highlights the personal and global contextual frameworks of museums, excess showcases the marginal happenings along the research quest, and reverberations discuss emergent understandings from the study. As an a/r/tographic manifestation of engaging with the renderings, I am making a conscious choice to include any understanding that transpires when it transpires. Nonetheless, I eventually re-visit all understandings through the lens of 'reverberations' in an attempt to allow newer understandings to emerge. With that, I am staying true to a/r/tographic *re-search* which postulates that re-visiting new understandings could lead to newer understandings and meaning-making opportunities.

Contextually, I choose to title the chapters "explorations" because, in relation to this study, an exploration offers a more fitting analogy than a chapter. I view a chapter as a concrete division in a series, where the start and finish are clearly marked. We even use the term 'to close a chapter' which resembles a finite act. My research cannot afford the finite or concrete and has to embrace the uncertain and indeterminable. Embarking on an exploration stems from a state of not knowing and constitutes an act of searching to discover. Also, in the act of exploring resides an innate acknowledgement for the longing to discover beyond what is sought. This way, one exploration could instigate another, causing a ripple effect of explorations that are interconnected

and intertwined. Moreover, exploring suggests the notion of quest, where an exploration could lead to a discovery that would require re-exploring an older exploration. This way, explorations become a clear manifestation of the premise of a/r/tographic inquiry.

Visually, each section of this study is preceded with a title page that mimics an exhibit entry panel which is a visual branding tactic adopted from museum design to help guide the audience through a space (Dean, 1994; B. Serrell, 1996). An entry panel indicates the room number and/or the title or theme of the exhibit on display. Similarly, the title pages state the numerical attribution of the exploration along with one of the six renderings that respectively frames it. The numerical attributions are meant to offer a sequential experience to those who choose so, but also serve as a checklist to those who wish to randomly explore this body of work. This visual arrangement is not meant to dictate a specific interaction but is rather meant to support the reader/audience in navigating the research and identifying where they are and where they want to go next.

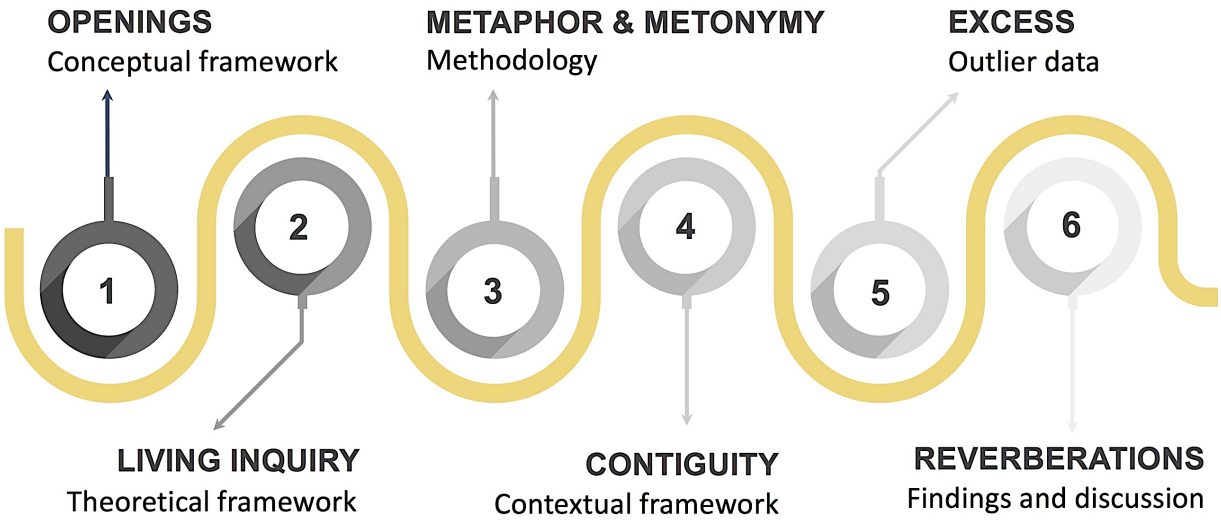


Figure 0.1. Linking research themes with a/r/tographic renderings

Exploration 1: Openings. This exploration uses a/r/tographic openings to frame the research prelude, where I "offer insights" into how the study is conceptualized and designed (Irwin et al., 2006, p. 72). Openings warrant a conceptual lens that creates new ways of approaching research because they resist predictability and expose contradictions (Irwin & Springgay, 2008; Siegesmund, 2013). As such, this exploration is where I familiarize the reader with the structure, rationality, and irrationality of my research curation. I also briefly touch upon the theoretical, contextual, and methodological premises of the study in order to introduce the audience/reader to the multilayeredness of my research quest.

Exploration 2: Living inquiry. This exploration is guided by the a/r/tographic rendering of living inquiry because my research stems from, builds on, and forms new lived experiences in and with museums. I take cue from living inquiry to dive into and investigate the theoretical framework of constructivism (Hein, 1991; Hooper-Greenhill, 1997), and specifically Dewey's (1934, 1938) philosophy of learning through experiences in relation to museum-based learning. The new lead-ins would allow for a fresher look into constructivism and Deweyan philosophies which would consequently generate new meanings to museological learning, and effectively the museum experience.

Exploration 3: Metaphor and metonymy. This exploration uses these likened a/r/tographic renderings of metaphor and metonymy to help make meaning of the methodological framework of this study: metaphors through signifiers and metonymy through shifting subject/object relations (Irwin & Springgay, 2008; Springgay et al., 2005). Through the symbolic qualities of metaphor and metonymy, I provide the philosophical underpinnings for understanding a/r/tography as a method in relation to my research. I introduce how renderings

signify the methodological, conceptual, contextual, and theoretical aspects of the study in order to demonstrate how practicing a/r/tographically opens multimodal passageways to engage with research. I also highlight the representational powers of the meeting of art and text in academic studies to substantiate the potential of arts-based approaches in uncovering new meanings.

Exploration 4: Contiguity. This exploration employs contiguity, the rendering that helps frame the notion of liminality and in-betweenness (Irwin & Springgay, 2008), to contextualize the museum existence from a personal as well as a global perspective. I provide an in-depth study of the contextual framework that governs the museum's existence in our everydayness. On a personal level, this exploration examines my researcher situatedness through engaging with the intimate and subjective of my experiences working in and with museums. On a global level, it investigates the ways in which museums situate themselves in relation to the public, past and present. Through engaging with the rendering of contiguity, I emphasize the liminality of subjectivity to collectivity in an effort to further contextualize the relationality of my personal experiences to my understandings of the museum's globality, and accordingly the museum's potential.

Exploration 5: Excess. This exploration delves into a/r/tographic excess which is the "outlier data" of an inquiry quest (Siegesmund, 2013, p. 142). It is regarded as a state of *becoming* through making and writing from within (Carter, 2013; Irwin, 2013; Springgay et al., 2005). The outlier is usually presented in an appendix, but I am consciously making it a part of the body of work in an attempt to acknowledge the rendering of excess as integral to practicing a/r/tographically. This exploration is necessarily messy and fragmented to mirror the unusualness inherent in excess, and to open new pathways for meanings to emerge.

Exploration 6: Reverberations. This exploration uses reverberations to discuss findings that emerged from engaging a/r/tographically with openings, living inquiry, metaphor and metonymy, contiguity, and excess. These emergent understandings intertwine and interplay to warrant a space to unearth new understandings of the potential of museums. A/r/tographic reverberations highlight the dynamic and dramatic movements that shift our understandings, either through delving deeper into meaning or swaying towards a slippage of meaning (Irwin & Springgay, 2008).

Pause(s)

In this study, *pauses* mirror museological resting zones. Resting zones are an integral component of exhibit design and are meant to provide opportunities for visitors to take a physical or mental break (Black, 2005; Heumann Gurian, 2006). In the same spirit, within this body of work a *pause* is intended to provide a mental or physical break from engaging with the research, whether as the author/curator or the reader/audience. Visually, these inter-chapter pauses are artistic interpretations of the title and content of the chapter to come. The visual rendering is modelled after the curatorial approach of using "[i]magery and exhibit elements that contain recognizable features, symbols, and associations" to spark the visitor's interest and build their "confidence in their own ability to understand the subject matter" (Dean, 1994, p. 31). The visual inter-chapter pauses are also a reflection of a/r/tography's core foundation of using art and text as a comprehensive approach to conducting research (Leggo et al., 2011). Moreover, in museums, resting zones encourage reflection (Black, 2005; Tang & Maynard, 2014), and they are identically employed in my research to encourage the reader/audience to reflect on their engagement with my work. Furthermore, museum breaks enable visitors to "select what to

concentrate on next" (Black, 2005, p. 202), and in mimicking their purpose in my research, a pause might help the reader/audience decide what to pay attention to next.

The contents of the pauses are my visual responses to practicing a/r/tographically. They are the moments where I highlight my artist-self in relation to the hyphenated space of the artist, researcher, and teacher; they are the moments where I communicate artfully with my reader/audience. Despite the attribution of a restful nature to a pause, the practice of art in these restful moments is also meant to serve as a catalyst to reflecting on my work in relation to the visual modes of dissemination. Similarly, within museum design, a pause is considered an "active part" of the museum (Black, 2005, p. 202), and by integrating the concept into my research structure, I aim to highlight the activity that takes place during a pause. My pauses are therefore lively and packed by encapsulating the process of practicing artfully, yet they remain restful and quiet by affording a break from practicing textually. The pauses are also manifestations of a/r/tographic excess, the unusual and unexpected data that emerges from engaging with research (Irwin, 2010). Through sharing what I think or do in my pauses, I am acknowledging the activity that takes place beyond the research as part of my research. This also reflects the nature of a/r/tographic living inquiry, where the boundaries between lived experiences and research constantly interact and influence one another (Springgay, Irwin, & Kind, 2008).

Note: I specifically choose to render my pauses as artful expressions to capitalize on art's facility as a suggestive medium that allows for multiple interpretations (Siegesmund, 2013). As such, the pauses are an invitation for you, the reader/audience, to interpret my work within the context of your own experiences, reflections, and impressions.

Moments of Reflexivity

Within the makeup of this work, *moments of reflexivity* represent the ebb and flow of engaging in living inquiry. Reflexivity is considered an integral part of arts-based research, positing a more visible author presence (Creswell, 2014). Being reflexive acknowledges the researcher's subjectivity and brings their voice to the forefront (de Freitas, 2008; Merriam & Tisdell, 2016). Reflexivity augments the relational effects of conducting research, especially the interchange between researcher and research. Through incorporating *moments of reflexivity*, I share with the audience how practicing a/r/tographic research triggers, affects, or changes me. This aims to give insight into how my positionality keeps morphing as I proceed with my work, and in effect achieve a higher level of transparency. By sharing my reflexive moments, I am also trying to stay true to the essence of a/r/tography by acknowledging the liminal as part of practicing research. In a/r/tography, the "outlier data" can open new pathways for understanding (Siegesmund, 2013, p. 142). These outlier happenings are associated with the rendering of *excess* (Irwin & Springgay, 2008), and by incorporating them I am actively weaving excess in the fabric of my work. As a result, I am emphasizing the renderings' interconnectedness.

These *moments of reflexivity* are not defined by a specific genre; sometimes they manifest themselves textually and other times artfully. They are distinct occurrences that result from engaging with living inquiry. These reflexive acts are not part of the research, yet they significantly shape how I think about my research. Therefore, I am consciously deciding to share them the way they occur, without adhering to academic standards of research and without analysis: I am intentionally allowing them to be what they are.

Review

Guided by John Dewey's (1916, 1934, 1938) theorizing about the centrality of experiences to learning, constructivism (Hein, 1995b, 1998; Pass, 2004), and museum studies theories (Bennett, 1995; Falk & Dierking, 1992; Hein, 2006b; Hooper-Greenhill, 2000), I embark on an a/r/tographic exploration of the ways my textual research and creative practices (Carter & Irwin, 2014; Irwin, 2010), using photography, drawing, painting, and poetry, can uncover new understandings of the potential of museums. My research quest is geared by the following question: What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences?

On a micro level, I aim to explore the potential of local museums in order to address Montreal's efforts to provide "best access to knowledge and culture" (Direction du développement culturel et des bibliothèques, 2005). On a macro level, I aspire to unearth new understandings of the potential of the museum establishment with the aim of supplementing existing universal attempts to increase the museum's relevance in relation to its audiences.

Pause: Openings

Life

Fragments

Transparency

Beginnings

Figure 0.2. Pause: Openings (Medium: Photography)

EXPLORATION 1

Openings: Conceptual Framework

Openings

A/r/tographic openings offer opportunities to explore research beyond our current understandings. Openings rattle and disrupt the comfort and safety of research through exposing contradictions and resisting predictability, which results in complex and intricate narratives (Irwin & Springgay, 2008; Siegesmund, 2013). These openings are not meant to offer straightforward insights and spark immediate realizations; they require extensive work to unravel what they have to offer. The idea behind openings is based on the notion that the contiguity of artist, researcher, and teacher, image and text, as well as author and reader/viewer, is "open and porous" (Springgay et al., 2005, p. 905), offering possibilities of new encounters and thereafter new meanings to emerge.

In this exploration, I harness the powers of a/r/tographic openings to disrupt my own research comfort and start engaging with a/r/tographic renderings to address my guiding question: What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences? I use the values of openings to carve a space in my work for channelling my artist, researcher, and teacher selves, as well as my appreciation for image and text. First, I start by giving some insight into the inspiration that guides this research. Second, I address my choices for arranging and disseminating my research. I explain the conceptual framework that guides this study and draw on museum curation to inspire my research design. Third, I give an overview of how every chapter is guided by an a/r/tographic rendering. Last, I state my intentions for embarking on this study as a means of staying *open* with myself and the reader/audience.

The beginning

The museum conception is rooted in colonialism, which translates to unethical collecting practices (Renfrew, 2000) and discriminatory and oppressive displays (Bennett, 1995). However, in recent years, museums have been actively trying to shed the cloak of their contentious pasts and evolve into more relevant establishments (Bennett, 1995; Sandell, 2002; Silverman, 2002). The efforts for change are noticeable and tangible: Museums now co-create content with the community, plan outreach programs for underserved areas, cooperate with schools to supplement their educational efforts, re-design for more accessibility, and disseminate online to increase reach (discussed in detail in exploration 4). As an active member of the museum community, I have witnessed those change initiatives first hand yet have always been occupied with the potential of doing more or doing differently. I have been lucky enough to work in collection-based museums as well as children's museums. The latter allowed me an opportunity to observe the flexibility of operating without the burden of a collection which requires museum practitioners to work around strict collection management policies. According to Marie Malaro (1995), a collection management policy covers the following topics:

1. The purpose of the museum and its collection goals.
2. The method of acquiring objects for the collections.
3. The method of disposing of objects from the collections.
4. Incoming and outgoing loan policies.
5. The handling of objects left in the custody of the museum.
6. The care and control of collection objects generally.
7. Access to collection objects.
8. Insurance procedures relating to collection objects.

9. The records that are to be kept of collection activities, when these records are to be made, and where they are to be maintained. (pp. 11-12)

Museums that house collections are often restricted in the amount of hands-on activities they can offer their visitors, mainly due to demanding conservation and preservation guidelines. In contrast, most children museums do not house collections, and are accordingly afforded the flexibility to operate without adhering to collection management policies. Children's museums therefore offer their visitors interactive and immersive displays that are engaging as well as entertaining. The opportunity to work in both museum settings gave me insight into the power of comfort created by a playful museum environment and the power of hands-on engagement. This has greatly shaped the lens through which I view museums.

Over the years, I have dreamt and tried to imagine what it means to capitalize on the potential of museums and how it could be experienced beyond its current existence. I have always been interested in expanding the possibilities of experiencing a museum; I would sit in a park and imagine how it could be experienced as a museum. I would dream about the prospect of infusing fun learning museum-based activities in a place that is not necessarily viewed as such. I would walk through a mall and see children engaging in commercial play activities that, more often than not, do not take advantage of the potential of learning through play. Therefore, I would continuously envision the prospect of infusing a mall experience with a children's museum concept. I would also wonder about the possibility of museums capitalizing on commercial traffic and expanding a mall experience beyond its consumerist existence.

One day, I decided to work on making my vision a reality and started experimenting with the idea of creating a decentralized children's museum project that integrates itself into the

community. So, in July 2011, I founded Discoverama, Egypt's Children's museum, with the mission of bringing learning infused museum-based play experiences to children in Egypt. The museum project consisted of a small permanent museum facility, housed in a commercial entertainment venue in Maadi, a neighbourhood in Cairo, and an extensive outreach programme that created semi-permanent satellite museum spaces in the outskirts of Cairo. The permanent facility was comprised of four exhibit areas that rotate their thematic offerings, an experiments zone that focused on exploring the sciences and technology, and a creative zone that was dedicated to the arts. The outreach programme revolved around a mobile children's museum that created semi-permanent satellite museum spaces offering small scale hands-on exhibit experiences to the public, especially underserved communities, schools, and children-focused non-governmental organizations (NGOs). The mobility aspect made the museum experience "more accessible to those who do not have the means, be it logistical or financial" (Discoverama, 2017).

The concept quickly gained momentum and established itself as an innovative museum approach. We were invited to present the model at international conferences (Hashem, 2012, 2013); newspapers and magazines reported on our concept (El Soueni, 2011); and we gained a lot of support from the community. Despite our uphill success, Discoverama had to halt operations by the end of 2014 due to the effects of Egypt's economic and political climate on the project's feasibility. Nonetheless, our established co-created community initiatives and pilots still exist and are organically operating on a small scale through local efforts. A group of three Discoverama volunteers decided to continue running a weekend interactive learning programme for their local community in Shebeen El Qanater, a small rural town on the outskirts of Cairo. Discoverama provided them with materials and programming manuals in order to facilitate their

efforts in maintaining a playful space for children in their community. Also, a Discoverama employee decided to integrate some of the museum's hands-on activities in her new job as a kindergarten teacher. Again, Discoverama shared with her all programming manuals in an attempt to support her new initiative.

In 2012, I had the opportunity to move to Canada and start a new life in Montreal. I immersed myself in the museological scene, familiarized myself with the socio-cultural framework, and eventually started getting involved as a board member with the Musée pour Enfants de Montréal (MEM) - Montreal Children's Museum. Despite leaving Discoverama behind, I never ceased to think about the potential of the decentralized museum model and how it could have evolved. Now, with Montreal as my home, I am curious about the prospect of the concept transferability or evolvement within a Canadian context. But, it does not stop here, I am also interested in the prospect of tapping into the potential of museums worldwide. Within the limitations of my own experiences, I still wonder if a project like Discoverama could be indicative of new directions in the museum's evolution. I am also curious about the potential that lies beyond my current understanding of what constitutes a new direction.

In order to reach the required depth and breadth for understanding the current and potential standing of the museum existence, both locally and internationally, it becomes imperative to embark on a research quest into the established understandings of museum learning and experiences in order to re-evaluate, re-reframe, re-define, and re-discover before I can understand, explain, express, and suggest.

What This Research Is and What It Is Not

This a/r/tographic research is a twofold journey consisting of an inquisitive quest that aims to unearth new understandings to learning and experiences in museums, and an imaginative endeavour that aspires to contribute to the potential of museums. Theoretically, by dabbling with the potential of change, I am inherently acknowledging the "general movement of dismantling the museum as an ivory tower of exclusivity toward the construction of a more socially responsive cultural institution in service of the public" (Anderson, 2012a). The evolutionary change of the museum establishment has been gradually shifting from the behaviourist power stance, which dictates that the museum is the all-knowing entity (Hooper-Greenhill, 1992), towards a constructivist approach that fragments the power position of the museum and recognizes the agency of the museumgoer (Hein, 1998). Methodologically, by engaging with a/r/tography, I am embracing the arts-based research qualities that rattle the long-standing academic traditions of fixed knowledge and disrupt the status quo of academic undertakings (Barone & Eisner, 2012; Mitchell, 2011). As such, this research will inevitably touch upon issues related to power, dismantling of power, traditions, and challenging of traditions. Nonetheless, power is not the focus of my work, but is definitely a lingering force in the undercurrents of this study.

I am consciously not focusing on power struggles in museums in order to "open a space in which museums do not always have to be understood in terms of power relations" (Witcomb, 2003, p. 17). Museum power struggles manifest themselves in the burden of the museum's conception as a colonialist product which shaped the establishment's approach to collecting and display. Museum collections are a testament to the power dynamics that took place when objects were forcibly removed or looted from their sites of origin (Renfrew, 2000). Museum displays are

evidence of the curators' attempts to frame the collection's source community as the strange other that is culturally stagnant and exotic (Bennett, 2004). Power struggles are also evident in the museum's approach to dealing with visitors, especially when adopting a behaviourist stance that places the museum as the all-knowing entity bestowing knowledge upon a passive receiver (Hein, 1998).

Constantly engaging with the lens of power struggles in and with the museum keeps perpetuating prejudices in the discourse and sidelines the self-critical nature of current museums (Bennett, 1995). This is not to negate the importance of continuing the power discourse, but rather an attempt to carve a niche for a parallel discussion that does not get absorbed by the tensions that arise from the burdens of power in the museum establishment. Ergo, this study embraces the museum's self-reflexivity by highlighting the potential that lies within without being overshadowed by lingering power tensions. I am essentially building on Eilean Hooper-Greenhill's (2000) "post-museum" practice and research stance (p. 152), which acknowledges the ways in which museums try to overcome their pasts by capitalizing on the positive prospects of their futures. In practice, the post-museum stance was implemented by the University of Denver Museum of Anthropology which no longer allows research on Native American human remains and funerary objects as well as maintains confidentiality of all related documentation (Marstine, 2006). Also, the National Museum of the American Indian developed a policy that gives photographs of religious or ceremonial significance "the same respect as the ceremonies themselves" and only allows them "to be displayed or published with the permission of the source community" (Marstine, 2006, pp. 20-21).

In research, the post-museum stance was adopted in Andrea Witcomb's (2003) work, which argued for the necessity of "attempt[ing] to recover what positive moments there are in museum histories" (p. 9) in order to transcend the "discourses of paranoia" (p. 12) and to assert "Bennett's refusal to demonize the museum" (p. 80). Witcomb clearly engaged with finding ways to reinvent the museum without directly participating in the power struggle tensions surrounding museums. Her arguments revolved around the fact that power related "analyses tend to shackle the museum to its negative past in ways that make it very difficult to get away either from a deterministic form of argument in which the museum will always stand as a symbol for domination or alternatively arguments which call for radical change as the only way to escape the encumbrance of the past" (Witcomb, 2003, pp. 9-10). The post-museum stance was also embraced in Shelley Ruth Butler and Erica Lehrer's (2016a) edited work, where they invited fourteen authors to translate critical academic theory about society, culture, and history into accessible imagined exhibitions. They were inspired by the post-museum stance because it offered an "emancipated, collaborative, [and] spatially fluid" museum existence (Butler & Lehrer, 2016b, p. 6). They also considered it integral to existing "visionary theoretical literature [that] reflects the urge to break free from established museological traditions and call out to the possible" (Butler & Lehrer, 2016b, p. 7).

According to my post-museum research stance, I am deliberately focusing this research on the positive moments in the museum existence through engaging with the *budding* qualities of museological learning and experiences in provoking new understandings of the *potential* of museums. I approach my inquiry from a visitor studies lens that is primarily concerned with the contextual setting of the experience in relation to the theoretical framework of constructivist learning that governs museums (Falk & Dierking, 1992). This lens inevitably deals with residues

from the lingering power relations that exist in the museum's conceptual and operational histories (Bennett, 1995; Luke, 2002). I acknowledge the contentious past of the museum existence as represented in the burden of racism, colonialism, sexism, discrimination, privilege, elitism, and oppression. However, I consciously do not venture into the thorny terrains of those discourses in order to maintain my post-museum approach which aims to build on the positive prospects of the museum existence. This is not to undermine the significance of power relations in museums, but rather is a conscious choice that carves a niche for the positive while being cognizant of the lingering effects of power struggles in museums. Therefore, my research will inevitably discuss certain aspects of power in museums, but my focus remains on exploring the qualities of museological learning and experiences as well as the agency afforded to the visitor through shifting practices in the museum field in order to unpack new meanings related to the potential of museums.

Why A/r/tography?

Mills (1959) encourages researchers to own their research, to not be boxed in by the boundaries of jargon and old expertise, and to consequently use any and all methods that best cater to their study. A/r/tography allows for a broader understanding of the museum experience, since exploring the *in-betweens* interchangeably offset the limitations a singular scope might impose on the research. I choose a/r/tography because "there are many complexities that exist when trying to situate a study within a particular perspective" (Butler-Kisber, 2010, p. 2), the fact that an a/r/tographic lens allows for multiple perspectives in looking at the world, as well as acknowledging the multiplicity of our roles in life, deems it most suitable to uncover new meanings for museum experiences.

A/r/t and Muse

Within the larger picture, a/r/tography corresponds to the constructivist epistemology that frames learning in museums (Falk, 1999; Falk & Dierking, 1992; Hein, 1995b). Constructivism is centred around learners creating their own meaning-making, which in return refutes the knowledge hierarchy and replaces it with a dynamic network of interactive components (Hein, 1998). Likewise, there is a strong emphasis on meaning-making in qualitative research in general (Merriam & Tisdell, 2016), and a/r/tography more specifically (Irwin & Springgay, 2008; La Jevic & Springgay, 2008; Pinar, 2004; Springgay et al., 2005). In my research, I acknowledge the fragmented and non-linear process of learning in museums (J. Griffin, 1999), which is complimented by the non-formulaic and fluid nature of a/r/tography as a method (Irwin, 2004; Springgay et al., 2005).

On the one hand, I employ the theoretical premise of constructivism to understand learning and experiences in museums, which in return contests compartmentalized, hierarchical, and linear understandings of museum learning. On the other hand, I engage with a/r/tography as a methodological framework that also refutes linearity, compartmentalization, and hierarchy, and instead encourages fluidity, contiguity, ambiguity, and openness. All things considered, entering into a/r/tography is to "make sense and create meaning out of difficult and complex questions that cannot be answered in straightforward or linear tellings" (Irwin & Springgay, 2008, p. 902). There is much promise and potential carried in the complementary nature of the theoretical and methodological frameworks of my research. Through successful alignment of theory and method, I anticipate uncovering new understandings of the potential of museums.

I also count on the novelty of a/r/tography in relation to museum studies research to open

up new ways of looking at learning and experiences in museums. First, it is a fresh lens that accommodates the multiplicity of the artist, researcher, and teacher existences often present in the museological practice, especially in the domains of curation and museum education. Curators and museum educators constantly shift roles between researching a topic, conceptualizing an exhibit, and disseminating the content for learning or educational purposes. Employing a method that embraces the multiplicity of the museum practice carves a space for a nuanced approach to understanding learning and experiences. Second, a/r/tography, as an arts-based method, encourages the use of art in research as a means of provoking deeper meanings (Irwin, 2010; McNiff, 1998). This multi-modal approach mirrors the multi-modality of museum dissemination, wherein the visual continuously meets the textual.

However, while there is not a large body of work attesting to the ability of a/r/tography in methodologically framing museological research, there is palpable promise in my limited findings. In searching the a/r/tographic literature for museum-relevant or museum-specific research, I have come across a total of four museum-related studies. One fruitful example of using a/r/tography in relation to museums is Elsa Lenz Kothe's (2016) study that investigates participatory art museum practices and how the visitor engages with them. She focused on "how individuals are invited to participate in various locations, while considering how these invitations inform the work of art museums that engage in participatory practice" (Lenz Kothe, 2016, p. 87). She specifically chose a/r/tography because it afforded her a new way of looking at evaluation studies as well as a space to reflect the multiplicity of her artist, researcher, and teacher roles as a museum educator. Another example is Roldán Joaquín and Marín-Viadel Ricardo's (2014) work that explores how museum audiences visually respond to original artwork in art museums. Their work was a three-phased research, educational, and artistic project that created an installation

which fused nine pieces of original artwork from the Art Collection Caja-Granada with the artful responses of the participants. They purposely employed an a/r/tographic approach because they considered the phases simultaneous rather than successive, and a/r/tography allowed for the a/r/t-ful (artistic, research, and educational) nature of their project to happen concurrently. They also opted for a/r/tography because it is a means to "intensify the in between situations where making visual images, art learning and research dialectically merge" (Joaquín & Ricardo, 2014, p. 2). Both studies engaged with a/r/tography due to its fluidity and the ways in which it mirrors the complexity of the museum visitor as well as the practitioner experiences. In light of said evidence, I carry the prospect of a/r/tography for equally capturing the intricacy of my museum-focused research. Through the novelty of employing an a/r/tographic lens in museological settings, I am presented with the opportunity to bring fresh perspectives to understanding museum learning and experiences and accordingly further explore the potential of museums. I am also warranted the space to contribute to a young yet growing field of research.

Art and Graph

In a/r/tography, there is strong emphasis on the multimodality of practicing and disseminating research through art and text (Irwin, 2010). The centrality of art and graph is metonymically represented in the makeup of the term a/r/tography, where the visual and textual are metaphorically brought to the foreground. The centrality of a/r/tographic artful and textual relationality originates from the significance of art in arts-based research. The philosophical underpinnings of arts-based research posit art as means of giving research deeper meaning (Finley, 2008; McNiff, 2008; Saldaña, 2011). Art captures the multimodality of the human existence, since we live, perceive, and express within a multisensory setting. Art also helps

express what words fail to communicate (Butler-Kisber, 2010); it offsets the limitations of textual dissemination. A/r/tography expands on this artful approach by doubling up on the multimodality through channelling the artist/researcher/teacher perspectives. A/r/tographic artful manifestations are categorically broader because of their genre multimodality and author multiplicity. This doubles down on the possibilities of approaching and disseminating research.

A/r/tography is also a method that capitalizes on the familiarity of art to complement the complicated nature of academic text. Art is a suggestive form that carries many meanings allowing for the possibility of multiple interpretations and denying the existence of that one right answer (Siegesmund, 2013). As such, engaging with the visual challenges long-standing academic traditions of fixed knowledge (Barone & Eisner, 2012; Mitchell, 2011). Using art and text invites non-specialists into the academic discourse through offering nuanced entry points which broaden the scope and reach of a study. Beyond multiple interpretations, the visual and textual "complement, extend, refute, and/or subvert one another" (Springgay et al., 2005, p. 900), warranting a/r/tographers the flexibility to re-shape their work to highlight newfound understandings. Therefore, employing a visual and textual approach to my research expands the horizons of practicing research and generating meanings.

Curating Research

When I started thinking about researching museum learning and experiences with the aim of provoking new understandings of the potential of museums, I immediately knew that I did not want to engage in a piece of academic work that sidelined my own experiences in and with museums. I also wanted to create a study that juxtaposed my academic endeavours and my museological expertise, especially as a curator. After careful consideration, I decided to model

my research after my personal understanding of a museum visit as an act of symbolic transference. On the one hand, I am able to allegorically represent a museum experience through exercising my know-how in producing museum experiences. This way, I am experiencing while creating an experience, and in that practicing a/r/tographically (Irwin & O'Donoghue, 2012; Irwin & Springgay, 2008). On the other, I am offering the reader an experiential engagement with my research in the hopes of it being symbolically immersive.

The Museum and Me

To understand the anatomical makeup of my work, it is essential to establish that the idea of curating my research stems from my lived experiences in and with museums and builds on my personal and professional points of view. So, to mirror the museum experience in my research, I would like to offer you two brief accounts of how I experience a museum: first as a visitor/outsider and second as a museum practitioner/insider.

Visitor account. Before visiting a museum, I read the advertised description of the exhibits in order to figure out which one calls out to me. If my curiosities and interests are triggered, then I make my way there, buy an entrance ticket, pick up a visitor's guide, and start my journey. Once inside, I start interacting with my surroundings, and more often than not, I get overwhelmed and experience "museum fatigue" (Falk & Dierking, 2013, p. 132). So, being a museum aficionada, I have learned to not feel pressured to see everything in one go: Sometimes, I skim through certain parts; other times, I allow myself to be absorbed by a specific display without paying attention to time; but, in all cases I always make sure to pause and take a physical and mental break to be able to take it all in. Over the years, I have discovered that after taking the designated visit pathway I usually backtrack because I feel that I missed something, or I detour

because I seek certain connections or meanings. Through embracing my personal longings and curiosities, I have come to accept that I am not bound by a visit's assigned linearity and that museums are flexible enough to accommodate non-linearity (even if it was unintended). So, even though I might re-visit the same exhibit or museum more than once, no two visits are alike; each one offers its unique set of experiences and impressions.

Every repeat visit connects my old impressions with newer imprints: For example, during one of my visits to the Egyptian Museum in Cairo, I took a moment to admire the statue of Ka-aper in room 42. It is a life-size wooden statue of a standing portly nobleman or priest with highly realistic facial features and shiny eyes. The eye sockets are cased with a copper setting and inlaid with stone which give them an extremely alive and lifelike appearance (Malek, 1999). After my visit, I curiously researched this unique and uncommon realistic rendering in Ancient Egyptian art and learnt that Ka-aper is considered one of the most elaborate pieces produced in the Old Kingdom style, dating shortly after 2450 B.C. (Malek, 1999). When first discovered, the statue's "vivid likeness of a fat, ageing man was dubbed the Sheikh El Beled because of his resemblance to the familiar figure of a headman of a modern village" (Smith & Simpson, 1998, p. 63). This idea of a probable likeness between our ancestors and modern-day humans continued to fascinate me. Thereafter, every time I visit the Egyptian Museum in Cairo I look for any resemblance between the features of Ancient Egyptians on display and people that I encounter in my every day; each visit becomes a fresh take on old displays: new stories emerge, and newer understandings come to existence. Ergo, this is why I keep going to museums, old and new.

Practitioner account. Through this brief practitioner account, I give you a quick glimpse into the process of exhibit planning and how I relate to it as an insider within the

museum world. To address the latter, I can attest, from personal experience, to the fact that the process of exhibition planning is a long and complex one. To me, the caveat lies in taking highly intricate and multi-dimensional themes and attempting to display them in ways that ensure visitor engagement without compromising the integrity of the theme's complexity. For example, the 2011 Watergate Exhibit at the Nixon Library was organized to afford the visitors the agency to explore the Watergate scandal through a series of curatorial choices:

> Visitors can follow a linear timeline of events along the bottom of the central wall, stand in chronologically organized thematic areas with headings like "Abuses of power," "Dirty tricks and political espionage," and "The cover-up," browse through visually linked biographical sketches of key players scattered throughout the exhibit, or track summaries of major events, also visually linked, [...]. Visitors can also use a series of interactive screens to hear White House tapes and view oral history testimony excerpts on specific topics. (Kanter, 2016, p. 27)

Despite the multitude of curatorial offerings capturing "the complexity of the events of the scandal and the difficulty of managing the enormous quantities of information required to understand them", the multilayered approach to display made "the exhibit somewhat hard to track" (Kanter, 2016, p. 27). In this case, trying to make the exhibit engaging compromised the visitor's ease of navigation and the seamless dissemination of information.

As a curator, the burden of choice always weighs down on me when involved in exhibit conceptualization; I constantly fear not doing the theme justice. However, there is also tremendous amounts of joy and gratification that come with exhibit development: I always get to learn something new because no two exhibits are alike; my creativity gets to run wild; and I

eventually get to see visitors enjoying my creations. No matter how diverse the exhibits, the development process is a discipline that is founded in museum studies, project management, and design theories (Carbonell, 2012a; Macdonald, 2006), and it adheres to a specific set of guidelines that usually manifest themselves as a three phase process: development, design, and implementation (Dexter Lord, 2001). Figure 1.1 provides an overview of the exhibition process and allows a closer look at the steps involved in creating an exhibit. This should help build a foundational understanding of the process, and later facilitate the reader/audience's interaction with my curatorial logic.

I. Development phase

- **Concept**
- **Interpretative planning**
- **Research**
- **Exhibition brief/Programme with preliminary budget and schedule**
- **Sourcing**

II. Design phase

- **Schematic design**
- **Design development**
- **Detailed design and specifications**
- **Detailed budget and schedule**
- **Detailed content research, sourcing and text**

III. Implementation phase

- **Procurement: tendering/bidding and design build**
- **Project management and construction**
- **Show/AV/multimedia project management and production**
- **Quality/cost control and co-ordination**
- **Installation**
- **Fine-tuning and commissioning**
- **Evaluation**

Figure 1.1. The exhibition process (Dexter Lord, 2001, p. 4)

Modelling Museums

In following the logic of my understanding of a museum visit, if you are reading this, then you are either an enthusiast whose curiosities have been most likely triggered by the title and abstract (similar to a museum enthusiast or a culture vulture), or you are an audience that has been obliged to consider my work because of social or scholastic obligations (much like someone being dragged by their family or friends, or a student on a school visit to the museum). In either case, I strongly believe that I need to provide a guide in order facilitate your navigation of this piece of work. Therefore, before delving into the theoretical and contextual aspects, I would like to offer some insight into how this study is conceptualized and structured. With that I aim to showcase the allegorical underpinnings of my research arrangement and presentation.

Fundamentally, my research structure intends to mirror a museum experience in production (for me) and experiential familiarity (for the audience). Hence, I begin by visualizing my study as a room in a museum, where I am to erect an exhibit about museum experiences. As previously mentioned, developing exhibits is a complex and multi-faceted process, but for the purposes of this study I am distilling the practice down to the basics in order to highlight the pivotal steps that shape the study. When conceptualizing an exhibit, I begin by looking at the floor plan to consider the possibilities and limitations of working with the space. Then, I decide on the pertinent themes that need to be highlighted, and accordingly decide on a thematic or chronological display. Next, I arrange the exhibit areas based on the display choice and micro-curate each exhibit zone according to its content. Hereinafter, I share with you how I apply this process in my study.

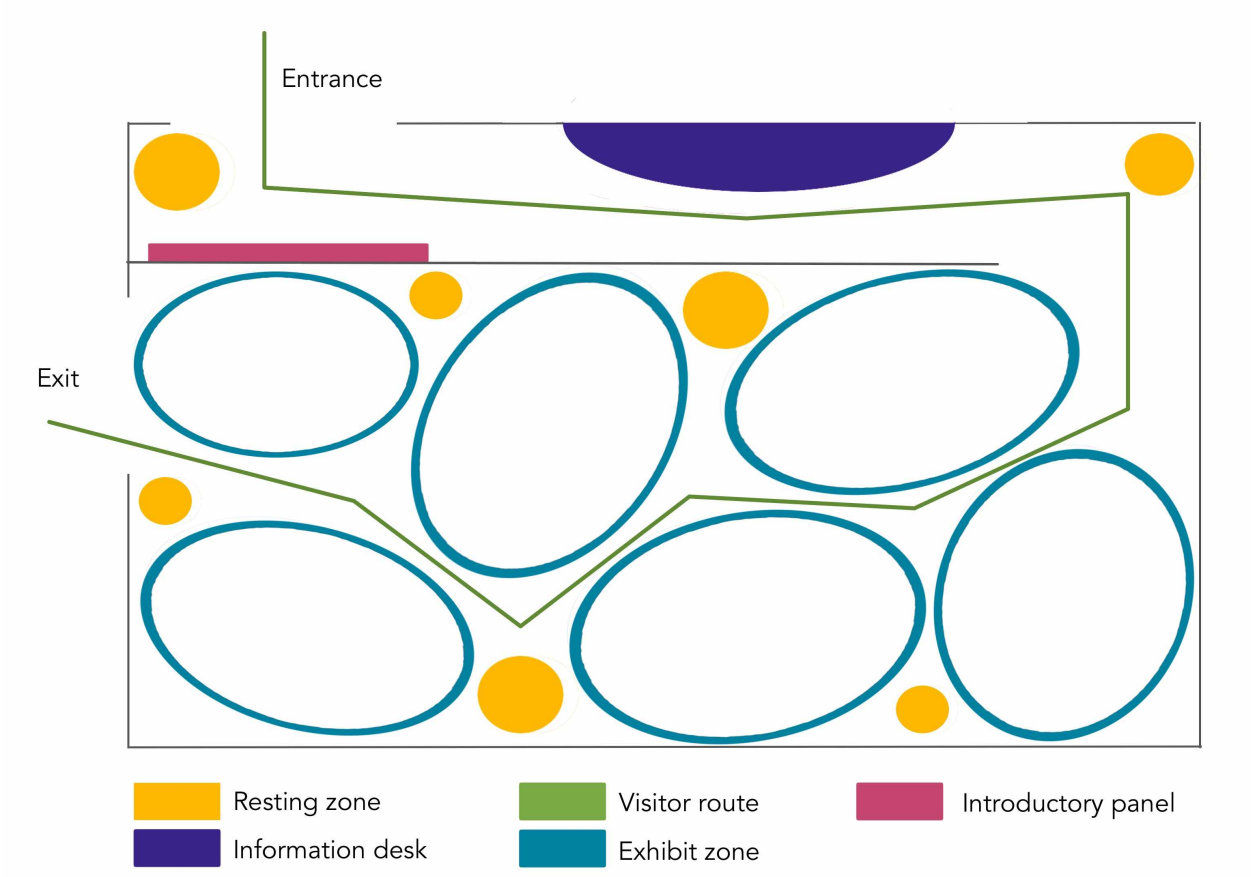


Figure 1.2. Sample floor plan of an exhibit space

I start by drafting a fictional floor plan of an empty rectangular room and start mapping it as I would when developing an exhibit (see Fig. 1.2). My choice for a rectangular shaped room is modelled after the most common floor plan division present in museum layouts (Tzortzi, 2015). A rectangular shaped room offers the necessary amount of linear and flat wall space that accommodates smaller and larger artwork alike (Maximea, 2001). It also provides multiple options for curating visitor flow within the space (Falk & Dierking, 1992; Tzortzi, 2014). Metaphorically, a rectangular shape represents the shape of the paper I use to note my thoughts and disseminate my work. This way, I am creating a representational link between the space I use to write and the space I use to curate. Considering that my research revolves around museum

experiences, I opt for a the integration of a thematic arrangement, which generally allows for more visitor flexibility (Maximea, 2014). Thematic arrangements mean that the visitor does not have to follow a specific chronological order which dictates a specific predetermined visitor route. As such, the visitor is afforded the choice to follow the suggested display route or target certain display areas depending on their thematic interest. Thematic arrangements offer thematic coherency within each display zone while sharing an overarching thematic linkage. Ultimately, they allow every visitor to curate their distinct museological experiences.

Based on my wants as a visitor and my know-how as a practitioner, I settle on an arrangement that allows for a linear as well as a non-linear experience. I create a space for thematic dissemination, while maintaining a linear arrangement of the overall body of work, in order to afford my reader/audience the same agency warranted to museum visitors experiencing thematically arranged exhibits. The following is a breakdown of the anatomical make-up along with the reflection of each museum element in the research:

- Entrance:
    - Museum experience: Visitors access the museum through the entrance.
    - Research experience: You come into this research through the title and abstract.
- Introductory panel:
    - Museum experience: The introductory panel gives a brief and general description of the exhibit (B. Serrell, 1996).
    - Research experience: The introduction and quest sections are meant to familiarize you with the rationale behind and purpose of my study.

- Information desk:
    - Museum experience: The information desk is where you pick up the visitor guide for the exhibit.
    - Research experience: My research offers an opportunity to understand the structure of the study through a thorough representation of the anatomical make-up. By presenting this information early on, it helps the audience navigate the study as well as suggest their agency in choosing how to interact with the work.
- Visitor route:
    - Museum experience: The visitor route is the suggested pathway visitors are meant to follow.
    - Research experience: The research is both linear and non-linear. The audience can read the chapters sequentially or choose to read them at random order.
- Exhibit zones:
    - Museum experience: The exhibit zones, also known as the display zones or display placement zones (Tang & Maynard, 2014), are where each subtheme of the exhibit is displayed.
    - Research experience: Each chapter of this study represents an exploration into an a/r/tographic theme that helps guide a conversation around an aspect of the museum experience (more details in the following two sections).
- Resting zones:
    - Museum experience: The resting zones, also known as the resting areas or places (Tang & Maynard, 2014), are meant to provide opportunity to take a physical break and "designed to create spaces for moments of reflection" (p. 323).

- Research experience: Within this work I incorporate what I call a pause with the purpose of offering mental breaks from engaging with the research (see section titled “Pause(s)” for a more detailed explanation). These are present between each chapter as visual renderings accompanied by poetic expressions that relate to the upcoming thematic exploration. Images are marked with the word ‘pause’ followed by the title and medium description to further contextualize their presences in-between the chapters.

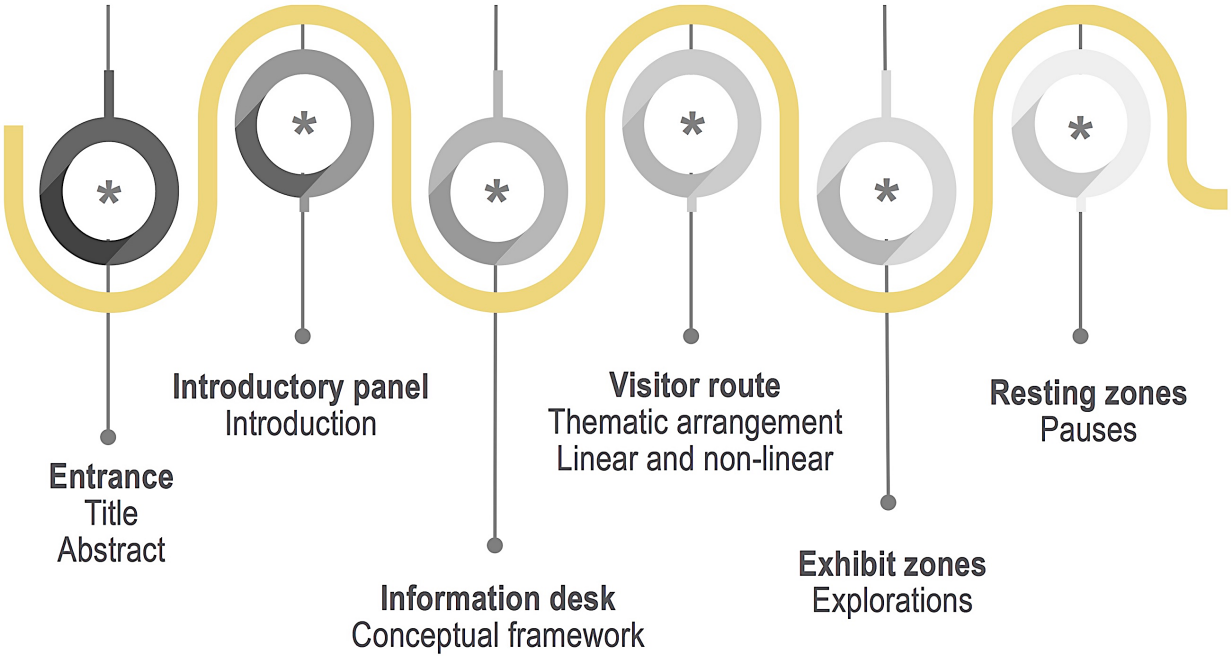


Figure 1.3. Mirroring museums in the structural anatomy

The structural make-up also applies on a micro level to each chapter, since the museum experience is similarly mirrored in each of them. This aims to facilitate the navigation and establish a sense of familiarity that increases the comfort level while engaging with the research. This builds on the museological premise that consistency in museum panels and textual display

help the visitor navigate and feel more capable in seeking information (B. Serrell, 1996). Consequently, the chapters are constructed as follows:

- The entrance: You come into the chapter through the title page, which provides a numerical attribution as well as the a/r/tographic theme that guides the chapter's exploration. As a result, chapters in this research are titled explorations (discussed in further detail in the following sections). The numeric attributions could be considered: a) a sequential suggestion to indicate the visitor pathway, or b) a numeric guide to help the audience figure out which of the six a/r/tographic renderings they have covered or still need to discover. The subtitle indicates the specific name of the a/r/tographic rendering that guides the exploration.
- The introductory panel and information desk: The first section or sections of each chapter are meant to familiarize you with the a/r/tographic rendering and how it guides the exploration.
- The visitor route: The chapters are designed thematically with a sequential order in mind. The thematic display offers the flexibility to jump from one sub-theme to another without compromising the integrity of the overall experience.
- The exhibit zones: Each chapter is organized thematically and divided into sections to facilitate the thematic navigation.
- Resting zones: I incorporate the concept of the *pause* at the beginning of each chapter with the purpose of offering mental and/or physical breaks from engaging with each thematic exploration (see section titled "Pause(s)" for a more detailed explanation).

Curatorial Renderings

To curate is to "select, organize, and look after the items in a museum or exhibition" (*Oxford English Dictionary*, 2012, p. 170). In museum settings, curating is a multilayered process that employs the rigour of research with the power of creativity to disseminate varied understandings of the world, and accordingly "has particular communicative, visceral, and affective qualities" (Butler & Lehrer, 2016, p. 9). It employs a multitude of communication tools that unpack scientific, technological, artistic, cultural, social, or philosophical, etc. themes in ways that engage the visitors with said theme/s. Curators employ text, visuals, technology, and/or animators to promote curiosity and evoke emotions in order to enhance the learning experience by "aiming exhibit design at a complementary employment of both sides of the brain" (Dean, 1994, p. 30).

Curation is also the link between the museum practice and the audience (Hooper-Greenhill, 2000; Silverman, 1995), where exhibits offer a connecting point between the personal realm of the curator's thematic understandings and curatorial choices and the public sphere of the museumgoer's thematic understandings and exhibit experiences. Curators and museum audiences correspondingly interact with the curatorial practice yet render their respective distinct experiences. The curators are constantly presented with ideas, subject matters, and viewpoints that they have to unpack through "thinking about local, place-based forms of research dissemination to wide audiences" (Butler & Lehrer, 2016, p. 9). In return, the museum audiences make personal meanings and develop their distinct interpretations of the same ideas, subject matters, and viewpoints presented to them through the lens of the curators' understandings and curatorial choices (Falk, 2009; Falk et al., 1998; Soren, 2009). Curation is a process and practice that creates experiences which trigger individual and collective reflections about preconceived

and novel notions, allowing for new meaning-making to emerge. These new meaning-making opportunities present themselves to curators and museumgoers alike. Inspired by the power of the curatorial tradition, I am curating this dissertation in hope that the practice of inquiry involved in my research will lead to a "process of constructing a point of transition", and accordingly "an effort toward making a border crossing" (Carter, 2013; Siegesmund, 2012, p. 108). Personally, these crossings would lead to a better understanding of the self, and globally, a critical understanding of museum theory and practice.

Consequently, I envision my dissertation as an exhibit that combines the poetry of my existence with the rigour of academic research, an exhibit that bridges the artistic with the scholastic. As it is common in museums, not all exhibits are about art, but art is integral to curating any exhibit because it is a process that entails multi-sensory, thematic, spatial, and content planning (Belcher, 1991; Lord & Dexter Lord, 2001). Mirroring the curatorial practice in this dissertation, I metaphorically adopt a/r/tography's six renderings to frame my study of the foundations of museum learning and experiences: I use openings to address the conceptual framework, living inquiry to discuss the theoretical framework, metaphor and metonymy to frame the methodology, contiguity to explore the contextual framework, excess to showcase the marginal happenings along the research quest, and reverberations to present and discuss the findings (emergent understandings).

Within the a/r/tographic framework, a rigorous attending to renderings results in the emergence of deeper meanings, and consequently new understandings (Irwin & Springgay, 2008). However, there is a "significant gap" in the literature resulting from a/r/tographers not paying attention to all renderings (Sinner, 2017, p. 46). They predominantly engage with living

inquiry and metaphor (excluding metonymy) as manifestations of their a/r/tographic attempts, and with that question the contributions of renderings to a/r/tography (Sinner, 2017). Hence, to stay true to a/r/tography's core conceptual makeup, I intend on attending to all six renderings by using their respective individual qualities to frame each of the explorations.

Despite the fact that renderings are not to be seen as stand-alone conceptual components of a/r/tography (Springgay et al., 2005), I separately use each rendering to guide and frame a pertinent exploration (concept, theory, method, context, and findings) in this research. This undertaking does not deny or nullify the interconnectedness and fluidity of the renderings, but rather attempts to brings each of the six to the spotlight in order to facilitate and guide the journey of exploration. Highlighting a rendering does not extract it from the context of its liminal existence in relation to the rest of the renderings. On the contrary, this process of underscoring aims to shed new light on the connectedness and intersectionality of a/r/tographic renderings.

My comprehensive attention to and intricate curation of renderings aim to create "what Dewey might call *an* experience" (Siegesmund, 2012, p. 106). I am trying to carve a space for this work to be a living inquiry for myself as the author/curator as well as for the reader/audience. Thus, by engaging with my work of exploring the understandings of museological learning and experiences through an a/r/tographic approach, the reader/audience is simultaneously undergoing an experience. This experience could then trigger new openings that allow the reader/audience to make newer meanings of this work.

My Intentions

This work is principally guided by the arts-based and autoethnographic research qualities of a/r/tography, which posit experiences as a means for deeper understanding in research quests

(Meyer, 2006, 2010, 2012; Springgay et al., 2005). In building my research around experiences, whether personal or global, I am consciously weaving subjectivity into my work. This subjectivity carries the burden of bias, which is an inevitable fragility that accompanies a/r/tographic work. However, I intend to fully embrace this fragility to genuinely situate myself within this study and to build on my personal understandings of my individual experiences in and with museums. In keeping with a/r/tography's philosophical premise, I engage with the personal as a means to complement the global because emergent personal revelations inherently lead to new global discoveries (Sinner et al., 2006). As such, through engaging with my individual experiences in and with museums, I am not only framing my subjective take on global experiences in and with museums, but I am also opening pathways to further understand the relationality of museum experiences in influencing the potential of museums.

Through this research, I intend on embracing the essence of a/r/tographic *openings* and "open up conversations and relationships instead of informing others about what has been learned" (Irwin & Springgay, 2008, p. 118). I intend on sharing my hesitations and uncertainties to give the reader/audience an insight into the researcher's perpetual state of not-knowing and answer-seeking. I intend on being *open* by exposing my subjectivity and bias to allow for process transparency. I intend on channelling the multiplicity of my existences as an artist, researcher, and teacher to stay true to my diverse identities. I intend on manifesting my inquiry in art and text to maximize on the breadth and depth of arts-based dissemination. I intend on allowing my preconceived notions to be challenged by emergent understandings in order to unearth newfound meanings. I intend on learning in hopes of evolving.

While I have been thinking about my intentions for my research journey, I scribbled a poem in my notebook. When I wrote it, back in the summer of 2016, I was not aiming for it to be part of my study. However, I am sharing my spontaneous poetic expression as a conscious act of being *open*, as well as staying true to the inclusion of art and text in my work:

Trying to produce

not to reduce

Trying to understand

not to demand

Trying to explore

not to implore

Trying to narrate

not to irate

As such, I embark on this journey with an open mind and heart. I take cue from the fluidity of a/r/tography to embrace my own uncertainties and I embrace the power of renderings to unravel opportunities for discovery.

Transitions

In order to illustrate my lived experiences engaging with a/r/tographic renderings to explore the understandings of museological learning and experiences, I start this first exploration by using the rendering of openings to open a gateway into my research. A/r/tographic openings "allow for the possibility of new conversations and relationships to emerge" (Carter, 2014, p. 27). Conceptually, by beginning my study with openings I initiate a relationship with my research as well as the reader/audience with the aim of creating a sense of acquaintance and

familiarity. The sense of acquaintance is rendered through sharing who I am and why I am embarking on this inquiry. I situate myself as a museum specialist, share my relationality to curatorial practices, and state my intentions in embarking on this research quest. The atmosphere of familiarity comes to existence through explaining my conceptual framework. I introduce the rationale behind my research and clearly elaborate on the anatomical makeup of the study. As a result, the reader/audience develops a sense of ease navigating my research.

In the coming exploration, I take a cue from the a/r/tographic rendering of living inquiry to dive into the theoretical framework of learning and experiences in museums. In a/r/tography, living inquiry describes the acts of research and investigations in relation to lived experiences. This complements the museum's existence as a representation of our lived experiences through its collections and displays. It also acknowledges my personal lived experiences in and with museums (K. Meyer, 2010). Personal lived experiences are integral to a/r/tographic research because they position the researcher/self in relation to the researched/world (Sinner et al., 2006). It renders the research question relatable, exciting, and contextualized. This individual and personal nature of the research process "encapsulat[es] the researcher's lingering curiosity of being-in-the-world" (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006, p. 1237). Despite this, the research becomes social and public when people "engage in shared inquiries, act as critical friends, articulate an evolution of research questions, or present their collective evocative/provocative works to others" (Sinner et al., 2006, p. 1238). Effectively, a personal and individual inquiry process eventually contributes to the larger discourse; a ripple effect that is triggered by a spark of curiosity.

Pause: Living inquiry

Living

Fading

Awakening

New

Figure 1.4. Pause: Living inquiry (Medium: Photography)

EXPLORATION 2

Living Inquiry: Theoretical Framework

Living Inquiry

In this exploration I use the qualities of a/r/tographic living inquiry to explore the theoretical framework of learning and experiences in museums. Living inquiry posits experiences as a means for deeper understanding in research quests (Meyer, 2006, 2010, 2012; Springgay et al., 2005), as research questions stem from curiosities around lived experiences. Comparably, within the museum realm, the theoretical premise of constructivism emphasises the centrality of experiences to learning (Falk, 1999; Hein, 1995b). It also underlines the centrality of people to the museum existence (Latham & Simmons, 2014), since humans and their needs are the driving force behind the museum's survival. In essence, living inquiry juxtaposes method and theory through harmonizing the individual and global aspects of a/r/tography with the personal and social properties of constructivism.

Living inquiry is also an engagement to knowing and understanding, an active process that attempts to revive the frayed, simplify the entangled, and complicate the simple (Irwin & Springgay, 2008; Springgay et al., 2005). In that respect, museum experiences are considered a complex body of events because of both the individual and social nature of interactions that take place during a visit (Falk & Dierking, 1992; Hooper-Greenhill, 2006). Thus, exploring museum experiences through engaging in living inquiry acknowledges the convoluted nature of the museum existence. It also carves a space that accommodates the complexity and uniqueness of the museum experience, since no two museum experiences are alike (Falk & Dierking, 1992, 2013).

Consequently, through adopting the flexibility and subjectivity of living inquiry, I attempt to explore my guiding question: What are my lived experiences engaging with a/r/tographic

renderings to explore understandings of museological learning and experiences? Through the lens of living inquiry, I am opening a space to pose questions that could not be answered in linear and compartmentalized ways. First, I research the correlation between learning and experiences in museums to substantiate the use of constructivism as a theoretical framework for museums. Then, I study the nature of experiences in museums through exploring the factors that constitute an experience. This is to further understand the theoretical premise that governs the use of experiences in determining learning processes in museums. Later, I investigate how my re-understanding of a museum experience can uncover or recover my theoretical comprehension of learning in museums. Through understanding the theoretical grounding of the museum experience, I can construct a fresh lens to rethink the potential of museums.

Museum Mandates

It is imperative to start this living inquiry with a short journey of etymology in order to grasp the philosophical underpinnings of the word museum. The word museum is derived from the Greek word 'mouseion', which means "the seat of the Muses" (*Oxford English Dictionary*, 2012, p. 475), a place meant for contemplation and inspiration. In Latin, the term museum is believed to derive from the word 'muse', which continued to loosely carry the same gist as in Greek, along with the meaning "to be absorbed in thought" (*Oxford English Dictionary*, 2012, p. 474). Effectively, the word museum fundamentally carries within its own meaning an ascribed value of inspiration and thought provokedness.

The museum community acknowledges this value and reflects it in different ways in the array of museum definitions. Until today, the museum community has not agreed on one fixed description for the institution, but most accounts possess the same spirit. For example, according

to the International Council of Museums (2007), which operates on an international level within the mandate of United Nations Educational, Scientific and Cultural Organization (UNESCO), a museum is defined as:

> a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment. (art. 3, sec. 1)

Within the Canadian context, museums are viewed as:

> institutions created in the public interest. They engage their visitors, foster deeper understanding and promote the enjoyment and sharing of authentic cultural and natural heritage. Museums acquire, preserve, research, interpret and exhibit the tangible and intangible evidence of society and nature. As educational institutions, museums provide a physical forum for critical inquiry and investigation. (Canadian Museums Association, 2016, p. 12)

Whereas in the United Kingdom:

> Museums enable people to explore collections for inspiration, learning and enjoyment. They are institutions that collect, safeguard and make accessible artefacts and specimens, which they hold in trust for society. (Museums Association, 2016)

And, in Australia:

> A museum helps people understand the world by using objects and ideas to interpret the

> past and present and explore the future. A museum preserves and researches collections and makes objects and information accessible in actual and virtual environments. Museums are established in the public interest as permanent, not-for-profit organisations that contribute long term value to communities". (Museums Australia, 2013)

Last but not least, a children's museum is defined as:

> an institution committed to serving the needs and interests of children by providing exhibits and programs that stimulate curiosity and motivate learning. Children's museums are organized as permanent non-profit institutions, essentially educational in purpose, with professional staff, which utilize objects and are open to the public on some regular schedule. (Association of Children's Museums, 2012)

Essentially, all museum definitions I have come across acknowledge the learning value of our establishments. However, given the scope of this study, I will neither discuss nor contest the validity of these descriptions in relation to conservation, preservation, accessioning or de-accessioning policies, but in return I will focus on whether learning is present as a common denominator amongst the five statements.

By taking a closer look at the aforementioned samples of museum definitions, it becomes evident that learning is fundamental to the museum mandate: Two statements explicitly used the term *learning*, whilst the other three opted for the terms: education, research and communication, or research and access which implicitly describe the process of learning. Collection-based museums value their capacity as safe keepers, researchers, and disseminators of knowledge, experiences, and ideas pertinent to their tangible and intangible collections. They directly and

indirectly acknowledge their learning capacity in their definitions. Non-collection-based museums, like the last example, are founded on the sole principle of catalysing learning through relevant experiences, and clearly state it in their designations. These types of museums are very much a pivotal member of the museum community and are increasing in presence due to their flexibility in adapting to contemporary community needs. Subsequently, nuances in description aside, the select examples of museum definitions recognize and highlight the learning worth of the institution, whether as collection or non-collection based.

Museums are therefore a major contributor to our collective understanding of the world. They are as much about people as they are about objects; they are created and arranged as spaces, physical or virtual, where people are allowed to construct individualized and collective meanings of their immediate and distant surroundings. Inherently, not only do visitors consider museums as learning bodies, but also museums recognize themselves as such.

Contrasting Learning and Education

As evident from the aforementioned museum definitions, the words *learning* and *education* are used interchangeably in museum mandates, missions, and descriptions. This begs to further investigate if they are the same. Generally, education is considered a formal system that offers knowledge acquisition opportunities in a structured fashion with measurable outcomes. This formalized educational organism commonly offers accreditation and resources that meet its objectives (Whitwortha, Garnettb, & Pearsona, 2012). In comparison, learning is viewed as a stimuli-triggered process of gaining knowledge through the "active engagement of the mind" (Hein, 2006, p. 345). Therefore, learning could be structured or unstructured, initiated or externally stimulated, formal or informal, as well as measurable or indeterminate.

Moreover, education is essentially hierarchical because a "top down" arrangement shapes the selection and presentation of ideas or information (Whitwortha et al., 2012, p. 402). The educator, school board, or other such power structure, chooses and delivers the educational material to a group of recipients who have no say in the selection process, and if they do, then it is a choice from pre-determined options. In contrast, learning is non-classified because "all new learning involves transfer based on previous learning" (Bransford, Brown, & Cocking, 1999, p. 53). Thus, there is no means of controlling the learning that will take place because *all* previous learning cannot be identified. It is fundamentally a loop because in order to identify one learning process, one has to map all previous learning, and in order to identify previous learning, one has to pinpoint the learning that preceded it, and so on. Hence, learning is a complex network of learning incidents that are interconnected and influence one another without a governing hierarchy.

Furthermore, education is goal-specific and organized around predetermined content that is delivered in a constructed environment (Hein, 1995a). This allows for assessment, facilitates measuring outcomes, and produces tangible results. Learning environments are also constructed, but as George Hein (1995) explained:

> The more we construct a situation that allows and encourages learning, the more likely we are to construct something that is open, ambiguous and able to be manipulated in a variety of ways by the learner; thus, the less likely we are to be able to predict precisely what has been learned. (p. 3)

This aligns with the above-presented *learning loop* which demonstrates how learning cannot be planned for or easily identified. Another vital component in juxtaposing education and learning

is time; educational activities are usually offered in a specific timeframe, whereas learning is not time bound and could take place at any time. Accordingly, education takes place in controlled and structured environments, while learning happens anywhere in an uncontrolled and unstructured fashion.

Finally, George Hein (1995b, 1998, 2006) extensively researched the relationality of learning, knowledge, and education (see figure 2.1). He categorized learning, along with knowledge and teaching, as the main theoretical components of any educational theory. According to his work, it is essential to understand how knowledge is formed in order to identify the educational process. Hein (1998) approached his research from a constructivist lens, which understands knowledge as a construct of learning. In his view, knowledge is dependent on the learning process, whether as an individual or social act. Consequently, identifying the learning process becomes fundamental to understanding educational practices. So, according to Hein (1995), education is categorically linked to learning, whereas learning is independent of education. This means that education can only take place if learning happens, while learning can and does exist autonomously outside of educational arrangements. Simply put, people learn as they learn independent of educational settings.

Based on these distinct differentiations, learning and education are categorically connected but definitely not identical. The fact that museums use the terms interchangeably only indicates that we need to initiate a field-wide conversation to pinpoint how and when we employ one term versus the other. Despite this, it is evident that, on the one hand, museums recognize the unstructured and fragmented process of learning in our establishments (Griffin, 1999), and therefore opt for using *learning* in contrast to *education* when trying to qualify or quantify the visitor experience (see exploration 4). But, on the other hand, we also have the capacity to offer

designated programming that adheres to clear objectives, and in return yields measurable outcomes. Museums are therefore learning institutions that could repeatedly offer educational programs for select audiences. Accordingly, in this study, I employ *learning* as the theoretical framework for museums because it is the overarching context that allows for individual and shared input, intrinsic and extrinsic stimuli, as well as considers previous experiences as a fundamental influencing factor.

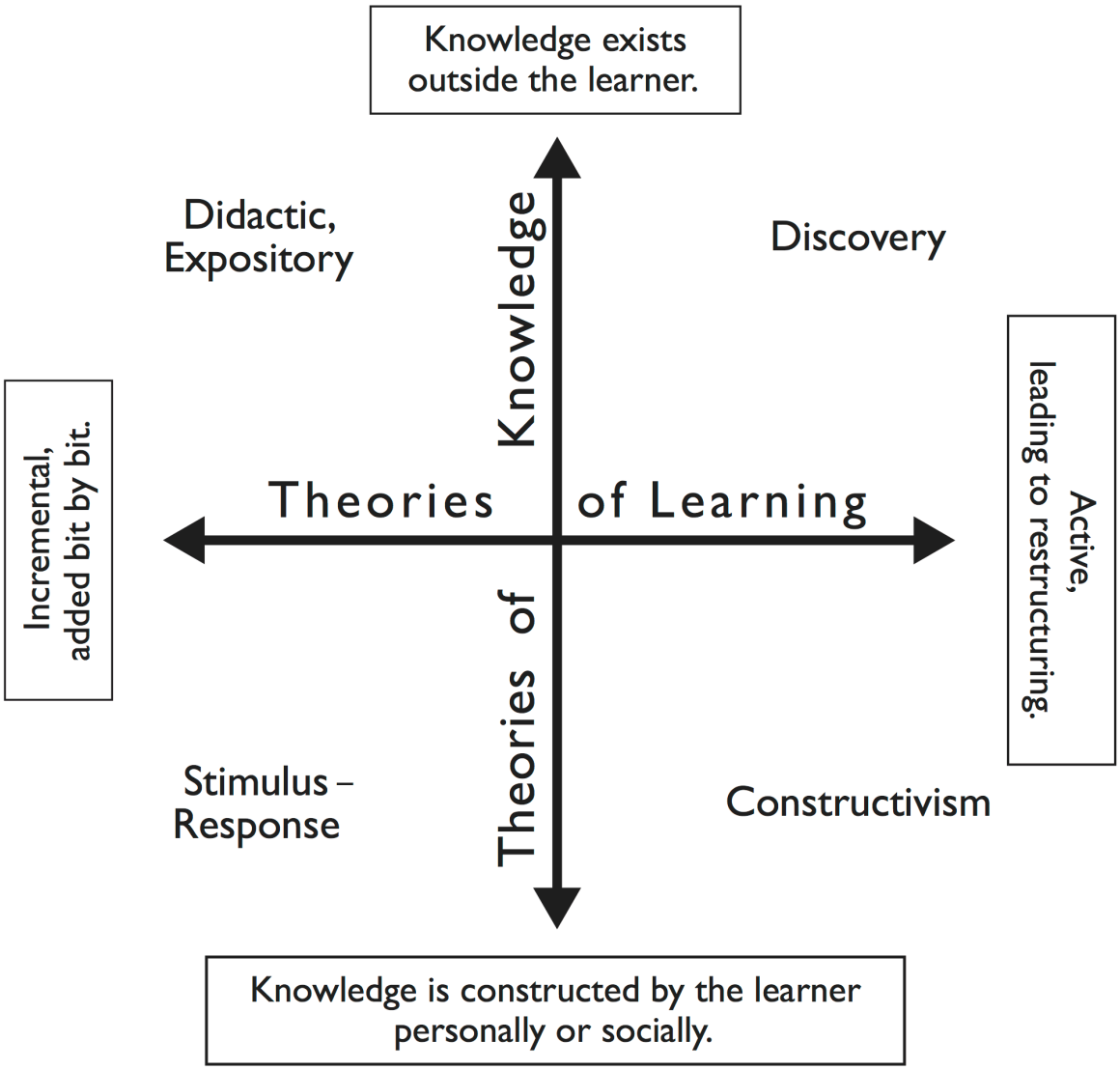


Figure 2.1. Hein's learning diagram (Hein, 2002, p. 198)

Museums as Experiences

Since museums take it upon themselves to be places of learning, we have to examine the context in which this learning takes place, i.e. the museum experience. Due to a paradigm shift from behaviourism to constructivism (see theoretical framework), it has to be noted that "the age of the passive visitor has passed, to be superseded by the age of the active and discriminating" visitor (Hooper-Greenhill, 1992). Thereafter, museums can no longer rely on object-oriented exhibits and the intrinsic power of the objects to give museumgoers a fruitful experience (Edson & Dean, 1994). Moreover, the audience is not homogenous; museums have to consider the individuality of museumgoers, their accessibility needs, as well as their desire for learning. After all, in most cases, museum visitors are there by choice and are eager to engage in new experiences (Falk & Dierking, 1998).

Experience Factors

In 1907, Louise Connolly, a museum educator, indicated that museums are being revolutionized by adapting a visitor-centred approach to experience (Connolly, 1914). At the time, there was an apparent inclination to acknowledge that every person setting foot in a museum brings with them their own experiences and knowledge. Museums slowly abandoned the behaviourist premise of addressing the audience through a one way "transmission" mode which postulated receiver uniformity (Hooper-Greenhill, 2000, p. 133). And, with time, museums started adopting constructivist driven concepts, for example "communication as culture" (Hooper-Greenhill, 2000, p. 139), which anticipates interactivity and response from visitors versus considering them information-absorbing sponges. This process of interactivity

and engagement between the visitor and the museum ignited the birth of museum experience research, also called visitor studies, which aimed to identify the museum experience.

Leading the field of visitor studies is the work of John Falk and Lynn Dierking (1992, 2013), who created the blueprint to understanding the museum experience from the visitor perspective. They identified three contexts that influence the museum experience: the personal, the social, and the physical (see figure 2.2). First, they explained that the personal context is individual in nature, and includes interests, motivations, and concerns, as well as new experiences gained from the museum visit. Second, they stressed that social interactions in museums are inevitable, since people either visit in groups, or if alone, then they will come in contact with other visitors or staff members. Third, they highlighted that the museum is a physical setting that visitors experience: it includes space, architecture, objects, exhibits, as well as the general "feel" of the space (Falk & Dierking, 1992, p. 3). The visitor continuously constructs each of the contexts, and their interaction creates the experience; thus, they called it the *Interactive Experience Model*.

Eight years after Falk and Dierking conceptualized the Interactive Experience Model, they revised their theoretical premise and added the factor of time which resulted in the *Contextual Model* (Falk & Dierking, 2000) (see figure 2.3). In the new model, time represents the changeable and variable nature of the interaction between the three contexts. They also redefined the social context as the socio-cultural context, which accounts for both social and cultural factors in shaping the museum experience.

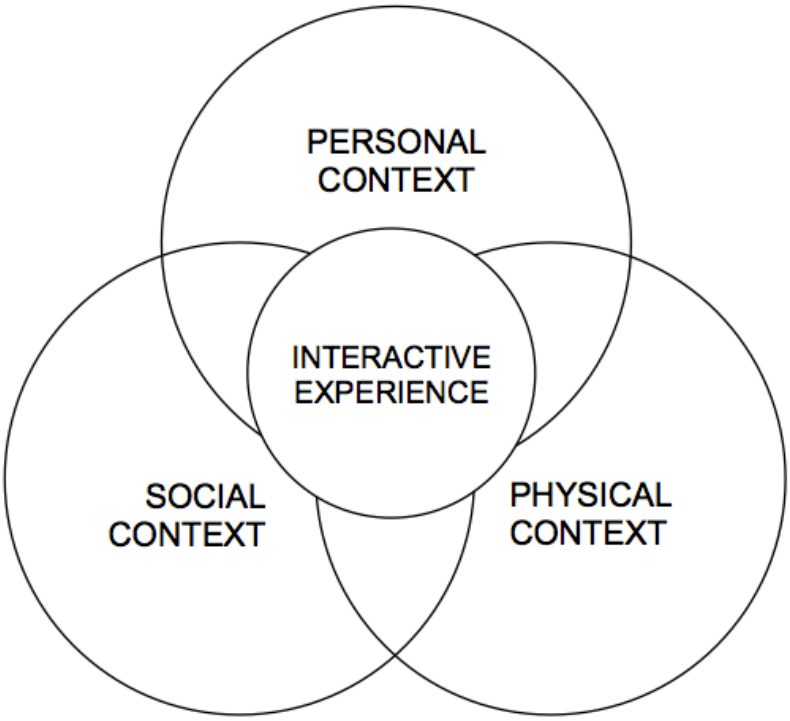


Figure 2.2. Interactive Experience Model (Falk & Dierking, 1992, p. 5)

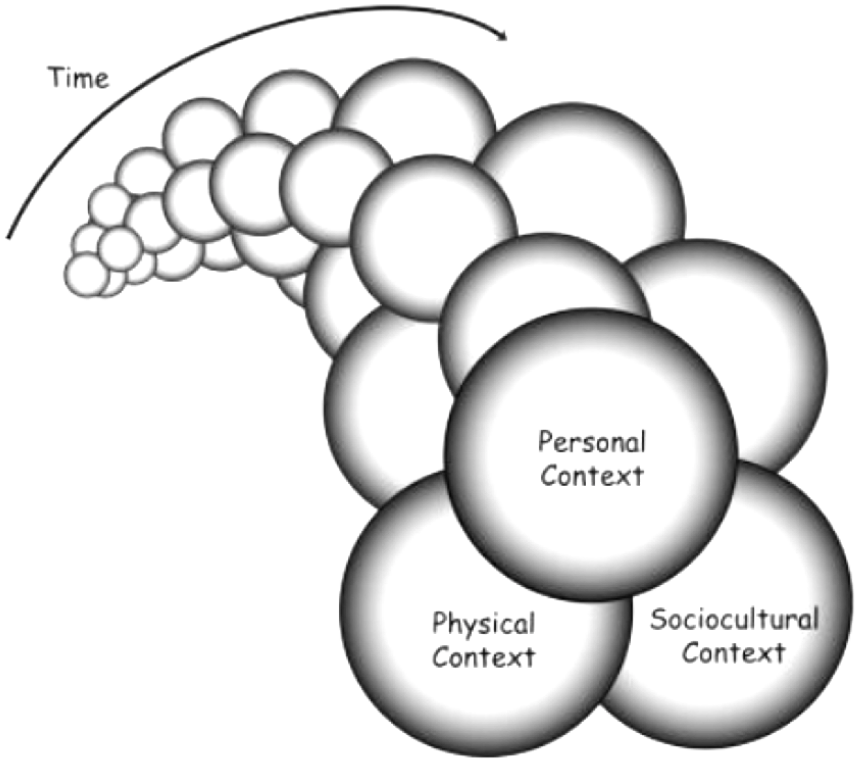


Figure 2.3. The Contextual Model (Falk & Dierking, 2000, p. 12)

Whilst the Contextual Model successfully portrays the intricacies of museum experiences, it fails to directly address more contemporary museological settings. Museums are now making their collections available online, they curate virtual exhibits, and take the museum outside of the museum to schools and communities. As a result, the museum experience is no longer physically bound to the museum building. So, the physical context as described by Falk and Dierking fails to encompass these new understandings, since their theoretical premise was contingent to the museum building. They went into great detail about the museumgoers' first museum experiences in contrast to repeat visits and how this affects their "pathways" (Falk & Dierking, 1992, p. 55). They also stressed visitor behaviour in terms of space orientation, label reading, object satiation, and effect of architecture on museum fatigue, all of which are related to museums being housed in buildings. In contrast, the model does not account for someone virtually experiencing an exhibit from the comfort of a sofa in their own home (for example). Here, different and new considerations for visitor behaviour come into play: interface interactivity and ease of use, museum fatigue in relation to virtual spaces, and visitor comfort in terms of physical place versus virtual space.

Additionally, the Contextual Model fails to address the thinking or reflecting about the museum experience. Although Falk and Dierking (1992) discussed the museum experience post-visit, they approached it as an act of recollection instead of reflection. Considering that their model is governed by constructivism (Falk & Dierking, 1992), which in return is based on Deweyan learning philosophies (Hein, 2006a), the absence of reflection becomes questionable. According to Dewey (1910), a trademark of an experience is continuity, and this continuity manifests itself through the act of reflection. An occurrence in isolation of space and time becomes an experience through engaging in reflection, whether immediate, gradual, or distant.

Also, Dewey's theorizing stressed the correlation between reflection and learning: within an experience, learning can only take place when one engages in reflection (Dewey, 1910). Therefore, the absence of reflection as a factor that acknowledges the experience beyond the act of recollection, philosophically dismisses the core foundations of constructivism and practically diminishes the experience in terms of continuity and long-lasting effects.

Experience Factors Expanded

Despite my critique of some aspects of Falk and Dierking's models, I am neither dismissing their work nor its importance in shaping my understanding of museum experiences. Both the Interactive Experience Model and the Contextual Model are fundamental to any study addressing experiences in museums. They capture the fundamentals of a museum experience, yet both models leave a gap in relation to capturing the changing nature of contemporary museum experiences. I therefore suggest a new model that expands on the definitions of Falk and Dierking's experience contexts to include factors they were not obliged to consider at the time of conception. Thus, instead of only looking at the museum experience through the lenses of the personal, physical, and sociocultural contexts, as well as time, I propose widening the lens to include the environmental, virtual, and meta factors. Accordingly, I conceptualize the Experience Factors Model (EFM) which offers a more contemporary and relevant interpretation of the factors that contextualize a museum experience (see figure 2.4).

Note: It is important to note that the EFM affords expansion depending on the nature of change that could affect museum experiences in the future.

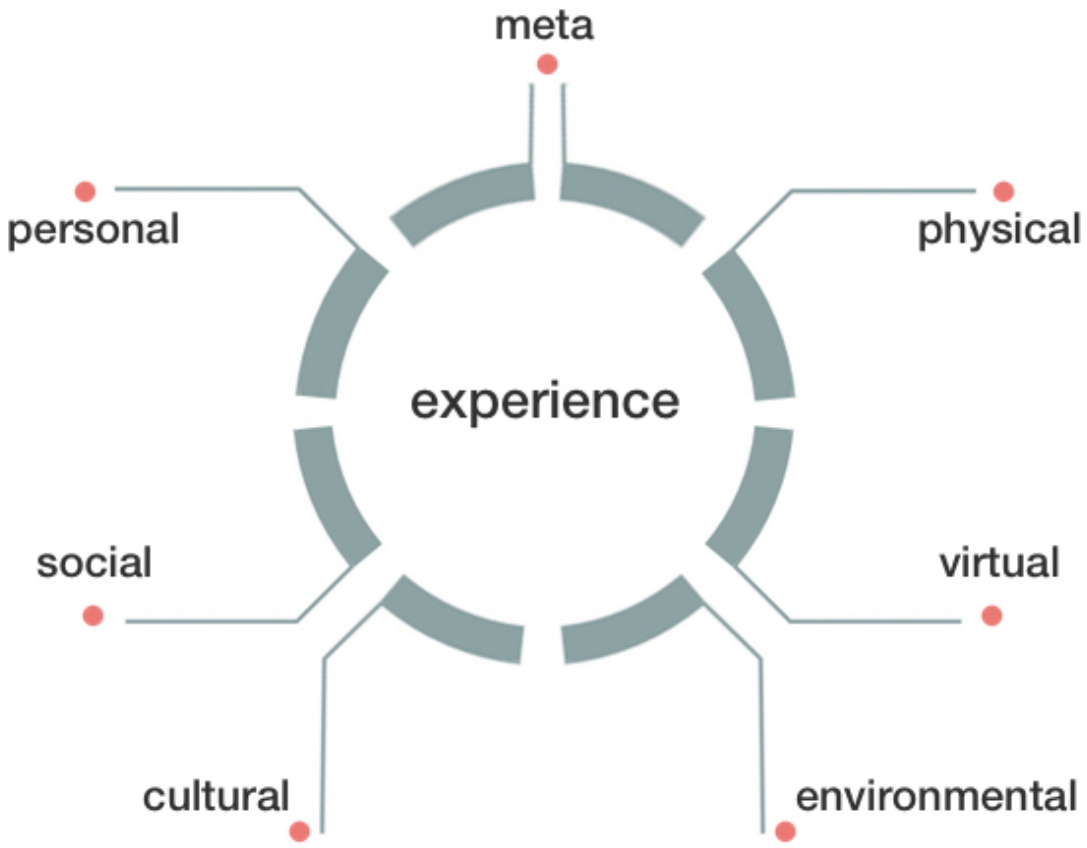


Figure 2.4. Experience Factors Model (EFM)

The visual presentation of the EFM is inspired by the Deleuzeoguattarian philosophy of rhizomatic relations, which is founded on the nature of rhizomes as an interconnected shoot and root system that exhibits a natural ability to connect at any point (Deleuze & Guattari, 1983a, 1987). The visual rendering of the experience at the centre of the circle suggests the centricity of the experience to the factors. The circular interpretation represents the quality of 'no beginning and no end' as characteristic of circles, whereas the openings metaphorically reflect the accessibility of connectedness as inherent in rhizomes. These openings are invitation points for connectivity with the factors that shape an experience, as well as a representation of openness for further additions in the future. The offshoot lines that emanate from the openings symbolize the qualities of rhizome's ability to endlessly extend.

Given the addition of the *environmental*, *virtual*, and *meta* factors, the overlapping circle representation of the factors, as illustrated in the Interactive Experience and the Contextual models, becomes problematic, since it assumes simultaneous contribution from all of them. Accordingly, I opt for a connecting point rendering that allows for creating associations when relevant. This offers more flexibility in individualizing how factors can shape an experience. It maintains the integrity of each of them without attributing weight, scale, or hierarchy. The EFM aims to capture the museum experience as a complex body of intertwined factors, with infinite variables for each, which in return echoes our understanding of museums as fragmented and unstructured learning entities.

In the conceptual makeup of the EFM, I differentiate between *physical*, *environmental*, and *virtual* factors, and include them as distinct factors within the spatial context. The physicality of the museum includes anything that could be touched, in essence anything that has physical presence, along with all associated reactions to it. It includes the physical space, the objects, the furniture, panels, and all other design elements that adorn the museum premises. The environmental factors are mainly geared towards outdoor and nature-oriented activities, and also apply to artificial immersive exhibits, as well as the overall environmental conditions that surround the museumgoer, even if they were at their own home.

First, when considering outdoor and nature exhibits, weather plays an important role in the experience: For example, a rainy day renders a different experience than a hot sunny day. Also, the setting of the exhibit changes the experience: A city scape with an abundance of noise pollution and concrete buildings delivers a distinctive experience in comparison to a nature-based exhibit offering nature's tranquillity and background sounds. Second, environmental factors also apply to the museum's physical space in terms of temperature, humidity, scent, as

well as overall air quality and room feel. In that respect, environmental factors are the intangible elements of the physical space that affect the museumgoer. Third, environmental factors also govern digital museum experiences since they range from static screen viewings to immersive virtual reality interactions (Parry, 2010). The museum experience varies from sitting on the couch surrounded by a sense of familiarity in sound and feel, to being fully immersed through virtual reality. This leads us to the virtual factor, which accounts for any online activity or virtual reality experience. It encompasses the nature of the user experience, quality of the interface, and level of interaction and impressiveness.

Finally, I propose the addition of *meta*, which embodies the internalized conversations, ideas, reflections, thoughts, or feelings, a visitor could develop as a result of the museum experience. It builds on Dewey's (1910) assumption of the experience as a continuous act that not only involves "sequence" but also "consequence" (p. 2). His theoretical premise emphasizes how reflecting on an experience creates new experiences, which in return alter the perspective through which the initial experience is viewed. It basically represents the ever-changing nature of an experience through reflectively engaging with an experience. The term *meta* also represents the abstraction, the intangible, and the unquantifiable of the experience. It is essentially the manifestation of indefinable immateriality. In its most abstract sense, *meta* is the experience of the experience, the infinite loop of experiencing through and in an experience.

Theory and Museums

I often ask myself if museums *really* need theories to function. From my own experience as a museum specialist, I know for a fact that many museum workers do not go through formal museological training yet still manage to do their job. This begs to question why we insist on

defining the theoretical frameworks that guide our work in museums. In that respect, I would like to highlight three main reasons: First, a clearly defined theoretical framework allows for the museum staff to understand the institutional agenda and goals. This allows them to take informed strategic decisions and operate, autonomously or collectively, in alignment with the organizational mission. Moreover, it helps the staff articulate exhibit ideas, write curatorial proposals, as well as produce consistent guiding texts and labelling. Second, according to the "Art Museums By The Numbers 2015" report, approximately 65% of a museum's income relies on statutory, private, and corporate donors (Association of Art Museum Directors, 2015). Given this high donor dependency, museums constantly need to validate their call for support through producing valid data, rigorous research, and outcome driven arguments. These could only be substantiated through a guiding theoretical framework. As a result, donors are able to understand how their fiscal support would translate to tangible or intangible outcomes. Third, as a professional community, informing our museological practice through an acknowledged theoretical framework allows for the transferability, adaptability, and/or modification of clearly defined and tested concepts. This shared network of knowledge influences the progress of our field and benefits the user and practitioner.

Despite frequently questioning the validity of theory in museums, I seem to always realize that it is crucial to our museological existence and development because it grounds our work and allows for institutional clarity. Moreover, museum workers who have a solid understanding of theory do not only *manage to do their job*, but more often than not, positively contribute by challenging or enhancing the status quo (Kahn & Garden, 1994; Newsom & Silver, 1978).

Epistemological Perspectives

The *behaviourist* and *constructivist* epistemologies consecutively steered learning theory trends in museums. Behaviourism gradually went out of fashion due to it simplistic view of learning, and was soon replaced by constructivism, which positioned the learner at the centre of the learning process (Bush, 2006; Falk, 2004; Hein, 1995b, 1998). Yet until today, museum theorists and practitioners keep going back and forth about the significance of learning paradigms introduced by these two dominant schools of thought (Falk, 2004).

Behaviourism

The theoretical framework of behaviourism governed learning during the early stages of museum existence. At the core of behaviourist approaches to learning were the works of John Broadus Watson (1924), Burrhus Frederic Skinner (1976), and Ivan Pertovich Pavlov (1960), which focused on behaviour modification through hierarchical and incremental assimilation of knowledge. Behaviourism only considered "observable, measurable, outward behaviour" as "worthy of scientific inquiry" (Bush, 2006, p. 14), which posits all leaners as reactive to the learning environment (Winn, 1990). As per the behaviourist paradigm, museums considered visitors passive learners, who would learn whatever the museum intended for them to learn (Falk, 2004). This allowed the exhibit developers to assume the role of the all-knowing entity that could stimulate desired learning responses from the audience by presenting them with the *right* set of objects and information.

A major critique of behaviourism is its simplistic understanding of learning as a low-level activity that requires no engagement. It essentially views knowledge as independent of the learner, negating the influence of personal, social, and environmental dispositions in the process.

Also, when museums function according to behaviourist standards, they reinforce power structures that should not exist in our societies. They perpetuate uniformity instead of plurality: They maintain a one-perspective approach to learning and exclude multiple viewpoints and contradicting accounts or beliefs. Last, the Pavlovian model of consistent reward of the one *right* answer, to achieve deeper conceptual understanding of the topic (Pavlov, 1960), is impossible to transfer to a museum setting because: a) The visitors are not tested after the visit, b) they do not repeat the visit, and c) docents do not reward them after every visit. Thereafter, behaviourism loses a central component of its framework, i.e. conditioning, when applied in a museum setting. Given behaviourism's archaic views of learning and its clash with the evolving role of museums, it gradually faded out of practice in most instances.

Nonetheless, it is important to note that the behaviourist framework did not completely disappear from the museum setting. In practice, many museum-based educational programming still rely on behaviourist approaches in planning their educational content (Hein, 1998). This often takes place when museum educators believe that they can seek specific learning outcomes from an exhibit. In research, there are remnants of behaviourist approaches that appear in contemporary studies, especially collection-based research. According to Falk (2004), investigators like Beverly Serrell, are still obsessed with understanding the effect of objects, labels, and exhibits on visitor behaviour and learning. Although he does not favour this persistent research interest, he is looking at some studies from a narrow lens. For example, Serrell's (1996) work on understanding text in museums actually dismissed behaviourist approaches and championed a constructivist framework. This is not to affirm that behaviourism disappeared from museological frameworks but rather to refute that most object, exhibit, or text related studies characteristically advocate behaviourist ideals.

By and large, museums opt to function through contemporary definitions of learning, and in doing so, gradually and categorically exclude behaviourism from their learning framework (see previous section on museum mandates).

Constructivism

The theoretical framework of constructivism postulates that every learner constructs their own understanding and meaning-making process (Ansbacher, 1998; Bruner, 1960, 2006; Dierking, 1991; Falk, 1999; Pass, 2004). Constructivism operates on the premise that learners are active participants in their learning (Rummel, 2008), because they create their own interpretations of experiences (Bednar, Cunningham, Duffy, & Perry, 1991). The constructivist framework is mainly founded on John Dewey's philosophical writings about learning and experience (Hein, 1995b, 2012). Dewey's (1910, 1916, 1938, 1958) work acknowledged the individual and social aspects of constructing knowledge and stressed the uniqueness of experiences in determining learning outcomes.

On the one hand, Dewey individualized the learning experience through underlining the role of personal knowledge building and reflection in shaping the learning process. He explained how knowledge is not external to the learner but rather an internalized process that comes to being through individual experiences (Dewey, 1910). He acknowledged how each learner is different and that knowledge acquisition is not a homogenous process. Dewey (1938) also established a correlation between experience and reflection, where the latter creates continuity that allows for learning to manifest itself. Establishing an experience continuum means the learner keeps constructing and reconstructing knowledge, making learning a never-ending and shape-shifting process. Moreover, he defined reflection as an active form of knowledge

acquisition because the learner engages in "persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it" (Dewey, 1910, p. 6). This refutes the behaviourist approach to knowledge absolutism and helps adopt a progressive approach to learning. It widely influenced museum studies' applications of constructivism in exhibit design and visitor studies. It also opened avenues for museums to acknowledge the individuality of the visitor and consider the distinctiveness they bring to their museum experience, as well as accounting for post-visit reverberations.

On the other hand, Dewey's work highlighted the social aspects of learning by emphasizing the attachment of organisms to their environments (Dewey, 1896). His philosophical premise suggested that since we do not live in isolation from other people and objects, we are accordingly always influenced by the interactions that occur within said constellation. These social and environmental interactions reshape knowledge acquisition processes because "to anticipate together, […] is to make a cross-reference" (Dewey, 1958, p. 178). This togetherness adds a collective dimension and a shared source for knowledge construction. As a result, Dewey's philosophy carves a space to question knowledge within a larger framework. Museums enthusiastically adopted Dewey's interpretation of social learning since it seamlessly aligned with the social nature of visitor experiences (Falk, 1999). His work shaped the progressive movement in museums (Hein, 2012).

Other major contributors to constructivism are Jean Piaget and Lev Vygotsky who provided the benchmarks for cognitive development research. Piaget believed that the mind is transformed through constructing its own structures, *schemas*, via observation and experimentation mediated by interacting with the environment (Keenan & Evans, 2009; Pulaski,

1980; Rummel, 2008). He placed great emphasis on the learner's active involvement in creating knowledge, and refuted the behaviourist premise of passive learners (Vasta, Haith, & Miller, 1992). Piaget's concepts were widely adapted in museum settings, especially in participatory and interactive exhibits (Black, 1990). Meanwhile, Vygotsky advocated social cognition, which considered cognitive development as a social process that is culturally determined (Black, 1990; Keenan & Evans, 2009; Pass, 2004; Rummel, 2008; Vasta et al., 1992). He developed the concept of the Zone of Proximal Development (ZPD) which explains how a less experienced learner (child) in partnership with a more experienced person (adult) can grasp material beyond that which they can manage alone (Vasta et al., 1992). Just like Piaget, Vygotsky's model guided much of the museological exhibit development, and allowed museum curators to factor in social interaction to create a deeper and more impactful learning experience (Dierking, 1991).

Constructivism continued to evolve from one epistemological framework to several theoretical paradigms: cognitive, social, motivational, cultural, critical, and radical (amongst others). Museum studies literature favoured social-constructivism, which stressed the importance of social contexts in influencing the learning process (Falk, 1999, 2009; Falk & Dierking, 2000; Hein, 1995b, 1998, 1999, 2006b; Hooper-Greenhill, 1992, 1997). Museum researchers also frequently referenced cognitive-constructivism (Ham, 1994; Jeffery-Clay, 1998), which internalized the learning process in the mind, and motivational-constructivism (Csikszentmihalyi & Hermanson, 1994; Paris, 1997), which highlighted the role of motivation in guiding learning. In application, constructivism shifted the curatorial practice from providing visitors with facts to creating opportunities for them to engage with concepts about the subject matter (Black, 2005).

Although constructivism is widely embraced by museum researchers, it remains ambiguous to many practitioners. According to a study conducted by Leona Schauble et al.

(2002), when asked to identify the learning taking place in an exhibit, some museum staff confused "constructivism as being synonymous with unguided discovery learning" (p. 443). This reveals an apparent complexity in bridging the theoretical generalizations of constructivism with museological applications. David Gruender (1996) went to the extent of claiming that a constructivist framework is impossible to translate into methods that might help people learn. The same limitation was echoed by Paul Kirschner, John Sweller, and Richard Clark (2006) in a study that assessed constructivism in relation to instructional approaches. They specifically highlighted that constructivism exclusively promotes learning through experiencing the process and sidelines learning the discipline as a body of knowledge, which results in not learning the discipline. This process-based emphasis also raises questions regarding the risk of losing the shared and collective social aspects of museum visits, since designers mostly translate it to heavily-laden interactive exhibits that absorb the individual. As a result, constructivism could render exhibits atomized and alienating (Witcomb, 2006).

Despite the shortcomings of constructivism, it is still an extremely relevant epistemological framework for museums since its broad definition of learning allows for new theoretical frameworks to spurt forth. The fact that museum practitioners cannot distinguish one learning approach from another could simply be attributed to the lack of professional training or the lack of requirement to know. It is not a shortcoming on the part of the framework but rather on the part of the museum itself. This also applies to how we interpret the constructivist emphasis on process in exhibit design. Several factors contribute to alienating museum visitors, and we cannot easily determine that purely due to constructivist approaches we atomize exhibits. Moreover, constructivism could and did get translated into methods; it inspired and guided a lot of contemporary learning approaches: experiential, discovery-based, social, cultural, free choice,

motivated, self-directed, and situated. Last, museums are not instructional sites, we do not aim to deliver disciplined knowledge to our visitors, we acknowledge that our on-site learning is fragmented and unstructured (Griffin, 1999). Ergo, critique raised about constructivism in instructional research does not necessarily apply to museological settings.

In conclusion, constructivism is a long-standing epistemology that is credible and grounded (Hooper-Greenhill, 2006). It is centred around learners creating their own meaning-making, which in return refutes knowledge hierarchy and replaces it with a dynamic network of interactive components (Hein, 1998). And, it is due to precisely these qualities that constructivism still guides the museological learning context.

Experience-centric Learning

At the core of the constructivist premise is the notion of "how we construct knowledge from our experiences" (Jonassen, 1992, p. 139). Dewey's work provided the foundation for understanding the philosophical and contextual frameworks that rationalise the centricity of experience to learning. When discussing the centricity of experience in constructivism, the terms experiential and experience-based are used interchangeably to describe learning that takes place in correlation with experiences. On the one hand, experiential learning is commonly used to reference an experience-centric learning process, yet, sometimes it specifically indicates David Kolb's (1984/2015) experiential learning theory (ELT). As the name suggests, ELT posits experience as central to the learning process (Kolb, 2015; Lewis & Williams, 1994; Seel, 2012; Wurdinger, 2005). The philosophical underpinnings of experiential learning postulate that learning always takes place in correlation with experiences (Boud, 1989; Kolb, 2015; McCarthy & Leflar, 1983). It is considered an interdisciplinary approach offering an alternative to

"compartmentalized learning" that disassociates from the real world (Wurdinger, 2005, p. 24). On the other hand, experience-based is also used to describe learning that centres around experiences, and occasionally substitutes the term experiential within the same text (Ansbacher, 1998; Kayes, 2002). The common denominator between experience-based and experiential is that both are used to describe the action of learning through experience. However, the term experience-based is rarely employed to directly describe Kolb's ELT processes.

When discussing learning through experience (experiential or experience-based), researchers often approach the paradigm from two distinct understandings: One stance understands the paradigm as *learning by doing*, while the other stance adopts a holistic view to *learning as centred around experiences*. First, learning by doing is where the learner comes in direct contact with an environment that allows for observation, acquisition, and application of knowledge and skills (Brookfield, 1983; Lewis & Williams, 1994). In a museum environment, this usually translates to interactive or hands-on exhibits, where the visitor is allowed to manipulate objects or experiment with exhibit elements (Royal Ontario Museum (ROM), 2014; Witcomb, 2006). Learning by doing posits the experience is sponsored and organized by an entity that facilitates and guides the process of learning. Second, the holistic approach appreciates the universal nature of learning through experience, since it recognizes that learning is a consequence of experience, any experience (Dewey, 1934, 1938; Hein, 1998; Jarvis, 1995; Kolb & Kolb, 2012; London, 2011). Here, the learner, and not an external entity, underwrites learning and determines if and how it takes place. Consequently, for the purposes of this study, I am employing the latter understanding, for it corresponds to the museological context as a flexible and fluid learning environment.

A major shortcoming of employing the term experiential learning to describe learning that centres around experiences is the fact that Kolb coined the term experiential to label his experiential learning theory (ELT). Consequently, this limits the theoretical and procedural understanding of experiential learning to the confines of his research. Despite widespread recognition and extensive cross-disciplinary referencing (Kolb & Kolb, 2012), the theoretical and methodological aspects of ELT are not prominent in museum studies literature. And, since my work is grounded in museum studies, the use of the term experiential could cause confusion as to the connotations it carries beyond its understanding within museological contexts. It essentially becomes problematic to make a distinction between the use of experiential in reference to learning that centres around experiences or in indication of Kolb's ELT. Another contention to using the terms experiential or experience-based is the loss of Dewey's main theorizing about the paradigm in relation to more contemporary theorists, most prominent of which is Kolb. Museum studies literature positions Dewey's thoughts and writings as the main philosophical construct for learning that centres around experiences (Falk, 1999; Falk & Dierking, 1992, 2000, 2013; Hein, 1998; Hooper-Greenhill, 1992). However, there is no specific term that communicates his direct contribution to the paradigm shift. To describe Dewey's theorizing, museum writers and researchers also employ the term experiential which is principally linked to Kolb's work. This overlap in usage presents an inability to categorically distinguish between Dewey's and Kolb's interpretations of said expression.

In order to overcome the lack of clarity that accompanies employing the terms experiential or experience-based, I am opting to use the expression *experience-centric*. In staying true to Deweyan philosophies, the term experience-centric clearly highlights the centrality of experiences to learning and vice-versa. On a philosophical level, it allows for distinct

differentiations between a Deweyan-centric constructivist approach to learning through experience versus a generic or Kolbian-centric approach. The term experience-centric also offers me an opportunity to deliberately distance my work from Kolb's experiential stance and situate it within Dewey's experience-centric theorizing. Moreover, it is an attempt to revive and reposition Dewey's work to unlock the development potential of his experience-centric learning as an avenue for theorizing about learning in museums. Contextually, the term experience-centric does not refute the generic qualities of experiential learning; on the contrary, it embraces its holistic qualities that recognize learning as a consequence of experience, any experience (Dewey, 1934, 1938; Hein, 1998). It underlines the centrality of experiences to learning while acknowledging Dewey's influence in defining said relationality. Hereafter, any reference to Dewey's theorizing about learning and experience will be labelled as experience-centric, whereas any mention of Kolb's work will be classified as experiential.

Theoretical Overview

Dewey's approach to experience-centric learning grew from the womb of the progressive movement which challenged traditional approaches to pedagogy and introduced experience and meaning-making as dynamic variables (Hein, 2012). Paramount to the progressive school of thought were John Dewey's revolutionary views on learning and experiences, which eventually shaped experience-centric learning and its adaptions in different disciplines, especially museum studies. Other key theorists who left their mark on experience-centric approaches in museums were Jean Piaget, Lev Vygotsky, Kurt Lewin, Jerome Bruner, John Falk, Lynn Dierking, and George Hein. Not to be dismissed, museum practitioners like John Cotton Dana, Delia Griffin, Louise Connolly, Anna Billings Gallup, and Beatrice Winser also largely contributed to shaping

our understanding of museum-based experience-centric learning.

Early on, Dewey established that the connection between learning and experience is the "only permanent frame of reference" (Dewey, 1938, p. 25). In his views, learning can only happen in correlation with an experience and in return an experience could trigger learning. This interrelatedness of learning and experience was also echoed in Piaget's (1951) work on childhood development stages, specifically in his theories of assimilation and accommodation. By assimilation he meant the acquisition of new knowledge into an existing schema (structure of knowledge), while accommodation meant the modification of an existing schema through new experiences (Keenan & Evans, 2009; Pulaski, 1980). Building on Piaget's stage theory, Bruner (1960, 1966, 2006) also recognized the importance of experience; but he broadened the reference to highlight the developmental stages as well as the interaction with the learning environment. He developed an approach that relates learning to intellectual development, acts of learning, and "spiral curriculum" (Bruner, 1960, p. 33). His main premise argued that learning happens when a learner makes connections (enactive, iconic, symbolic) between experiences. Bruner's concept of spiralling learning effectively paved the way for scaffolded learning to flourish (Davis & Miyake, 2004).

Similarly, Vygotsky's theories stressed the importance of experience in learning, precisely those revolving around how learners can transform their environments through meaningful action (Keenan & Evans, 2009; Pass, 2004). Moreover, Lewin's research on group dynamics and action research, concretely his laboratory training movement, stressed the significance of subjective personal experience in learning (Kolb, 2015). The prominence of "subjective experience has developed into a strong commitment in the practice of experiential

learning to existential values of personal involvement, and responsibility and humanistic values emphasizing that feelings as well as thoughts are facts" (Kolb, 2015, p. 11). Founded on Lewin, Piaget, and Vygotsky's theories, Kolb (1984/2015) extensively documented the interrelatedness of learning and experiences in his research. His studies focus on learning processes and leaner classifications, as well as the relationship between experiences and the reflection that happens thereafter. Kolb's work is pivotal to experiential learning theory, and central to any research on the topic of learning and experiences (Boud, 1989; Seel, 2012).

In the field of museology, Dewey's writings guided the understanding of experience-centric learning. The museum theme frequently appeared in his writings, since he acknowledged the learning value of museological experiences (Hein, 1999). Dewey explained that in order to achieve learning, it has to be connected to real life, and to him the museum experience facilitated this real life interaction (Hein, 2004). Similarly, Beatrice Winser, as the Newark Museum director in 1929, stressed on giving children the "opportunity to handle objects" to make the museum experience more relevant to learning processes (Winser, 1937, p. 656). She exhibited how the experience-centric learning tendency of the progressive movement influenced her museum practices. Also, Delia Griffin, who became director of the Fairbanks Museum in 1903, acknowledged the premise of experience-centric learning and developed programs, for adults and children alike, where they interacted with museum collections. She believed that any "knowledge" gained through experience will "never desert its members" (Griffin, 1907).

Moreover, Louise Connolly, a museum educator during the 1900s, reported that the museum is revolutionizing itself through forging stronger connections to real life experiences (Connolly, 1914). Correspondingly, Anna Billings Gallup, who was curator in chief of the

Children's Museum Brooklyn in 1903, believed in the power of experience-centric learning (Gallup, 1908a, 1908b; Hein, 2006c). She introduced the "busy bee" corner where children were allowed to study and manipulate the natural history material they collected from outside (Gallup, 1907). Accumulatively, the progressive practices of these museum professionals became the philosophical foundations for most visitor experience approaches in museums today (Danilov, 2005; Hein, 2006c).

Individualized but social. An important aspect of Dewey's experience-centric learning is that it posits on the fact that not everyone learns the same way, as well as values the social interactions that facilitate and inform learning (Bruner, 2006; Kolb, 2015; Usher, 2009). It encourages differentiated learning because it allows for individualized meaning-making and learning processes (Dewey, 1938; Falk & Dierking, 2000). As the director of the Newark Museum from 1909 until 1929, John Cotton Dana recognized the value of individualized learning experiences, and advocated for the freedom of people to develop their own interests; an ideology that was considered revolutionary at the time (The Newark Public Library, 2006). Likewise, Bernice McCarthy highlighted individualized learning, and introduced the 4MAT system, which acknowledges differentiated learning styles (McCarthy & Leflar, 1983). Also, Kolb (2015) affirmed that individuals do not learn the same way. In his work, he focused on identifying and classifying the variations of learning styles, which resulted in his widely applied learning stages and cycle models (see figure 2.5).

Furthermore, experience-centric learning acknowledges that the "development of experience comes about through interaction", which suggests that learning is fundamentally a social process (Dewey, 1938, p. 58). Vygotsky emphasized social interaction in learning through

his research on social development theory, where he argues that social learning precedes development (Keenan & Evans, 2009; Pass, 2004). He further classified the social level of development as interpsychological, whereas personal development was intrapsychological. In addition, Kolb (1983/2015) explained how learning cannot be solely mediated by books, formulae, or philosophical systems but requires living systems of inquiry and learning subculture to create a "complete structure of social knowledge" (Kolb, 2015, p. 175). Similarly, Falk and Dierking (1992, 2000) echoed the social significance of experiences in their Contextual and Interactive Experience models. They explained how learning in museums is a socially mediated experience, where the social context intertwines with the personal and physical contexts. Correspondingly, Hein (1995b, 1998, 2006a) repeatedly stressed the socio-constructivist prominence of learning through experience. He showcased how we cannot assume what and how museum visitors learn unless we factor in socio-cultural values and personal attributes.

Learning Processes

The theoretical framework of experience-centric learning does not only deal with the nature of learning but also addresses how learning takes place. Dewey stressed that the process of learning is conditional to observation being followed by judgment, i.e. "we have to understand the significance of what we see, hear, and touch" in order to learn (Dewey, 1938, p. 69). He further elaborated that understanding significance prompts consequences which we could only be made aware of due to previous experiences (Dewey, 1916). In essence, he affirmed the importance of previous experiences in shaping our disposition in the learning process. However, according to Dewey (1938), learning does not take place unless we exert judgment, and we can only judge upon reflecting on previous experiences. Ergo, reflection becomes an integral part of

an experience.

In education literature, Kolb (2015) interpreted Dewey's account of how learning takes place in his four-stage *Experiential Learning Cycle* model. Kolb's learning process starts with concrete experience, then reflective observation, followed by abstract conceptualization, and leading to active experimentation, which in turn could prompt the process all over again (see figure 2.5). In museum literature, Hein (2004) translated Dewey's learning process into a learning model relevant to museums. He differentiated himself from Kolb's interpretation by dismissing the cyclical adaptation and stressing the continuum aspect of learning (see figure 2.6). Hein positioned museum experiences as catalysts for learning beyond the museum because as visitors reflect on their museum visit they develop interest in new topics related to their newfound realizations. Museums attempt to fulfil their catalytic role by contextualizing objects and building connections to the outside world (Falk & Dierking, 1992; Hein, 2004). Several museums also account for reflection in their exhibit design, while some mediate a full cycle of inquiry. However, until today it remains a challenge to "relate the immediate outcomes of museum experiences back to life" (Hein, 2004, p. 424).

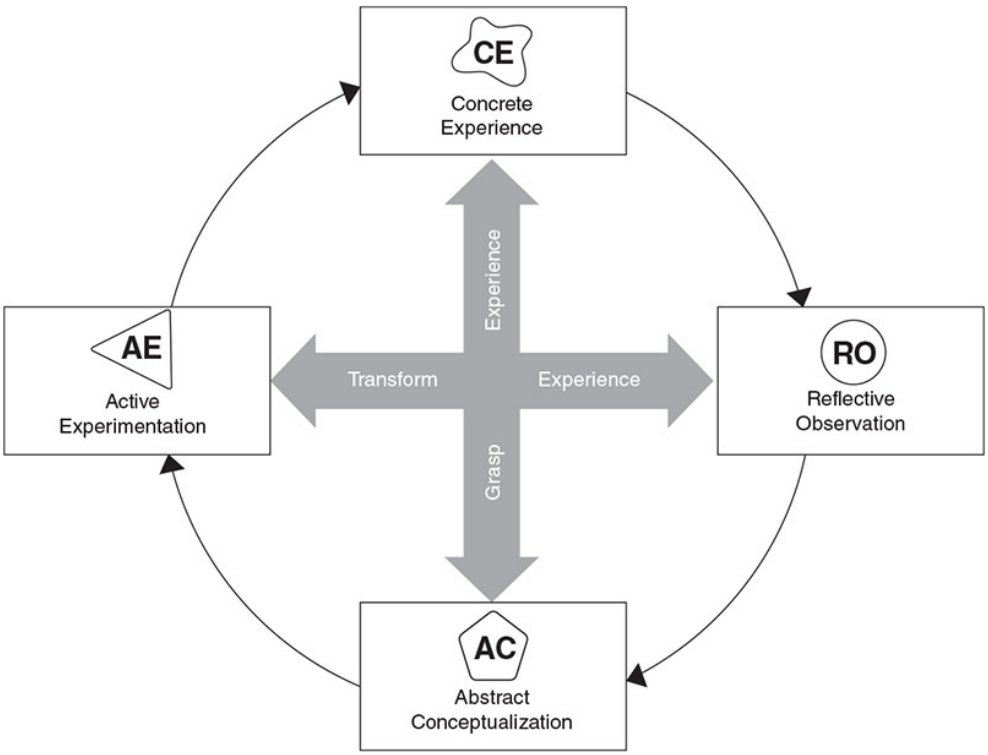


Figure 2.5. Kolb's experiential learning cycle (Kolb, 2015, p. 51)

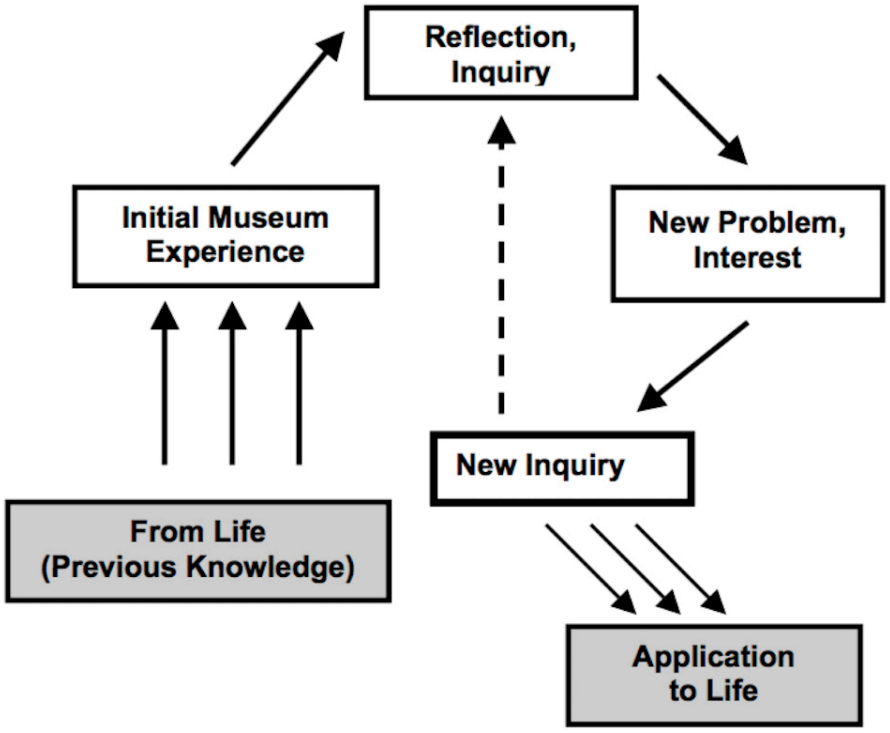


Figure 2.6. Hein's interpretation of Dewey's learning process (Hein, 2004, p. 424)

To sum up, Dewey hypothesized that learning happens when learners reflect on their experiences, i.e. impulse versus reason. In contrast, Piaget saw learning as a process occurring after acquiring knowledge and modifying the mind *schemas* accordingly, i.e. assimilation and accommodation. Comparably, Lewin considered learning a result of tension arising from observation versus action, especially when accounting for the concrete and the abstract. Inspired by Dewey, Piaget, Lewin, and Kolb redefined learning as a process that "questions preconceptions of direct experience, tempers the vividness and emotion of experience with critical reflection, and extracts the correct lessons from the consequences of action" (Kolb, 2015, p. xxi). Within museum literature, Hein viewed museological learning processes as mediated by experience-centric and interactive means, resulting in visitors constructing their own meaning-making in and beyond the museum setting. Correspondingly, learning processes resonated in Falk and Dierking's (2013, 1992) studies on museum experiences, where they explained that learning happens as a result of the interaction of personal, social, and physical contexts.

Critique

Most critique written on the constructivist theorizing about learning and experiences is directed towards Kolb's experiential learning theory (ELT) and his experiential learning styles and cycle classifications, specifically the philosophical construct validity of his learning process approach. For instance, Reijo Miettinen (2000) called Kolb's method, in arranging terms and concepts to present experiential learning theory (ELT) as an integrative perspective on learning, "eclectic" (p. 56). He explained that Kolb extracted his concepts from their historical contexts, which could result in conflicting theoretical conceptions and theorists being grouped together as supporters and founders of ELT. Also, Iain Garner (2000) questioned the theoretical foundations

of Kolb's work, and argued the impossibility of reaching firm conclusions about the nature of his learning styles categorization. Similarly, Jayson Seaman (2008) viewed Kolb's learning models as lacking adequate scientific and philosophical foundations.

Apart from questioning the philosophical foundations of Kolb's ELT, several writers addressed their critique towards his learning process models (Bergsteiner, Avery, & Neumann, 2010; Boud, Keogh, & Walker, 1985; Fenwick, 2001; Garner, 2000; Jordi, 2010; Kayes, 2002). For example, Seaman (2008) mainly criticized the inefficacy of stepwise models in reflecting the holistic nature of learning processes that are central to learning from experience. In contrast, Harald Bergsteiner, Gayle Avery, and Ruth Neumann (2010) problematized Kolb's insistence on defining his learning classification as styles versus stages, since learning styles link to inherited or acquired personality types instead of stages that mark a sequential process in the cycle. Moreover, David Boud, Rosemary Koegh, and David Walker (1985) expressed that Kolb did not successfully highlight the significance of reflection on learning, whereas, Richard Jordi (2010) was more concerned with the cognitive bias of reflective processes in his experiential learning model. Most of the critique originates from the fields of adult learning, education management, training, and lifelong learning, since Kolb shaped much of their understanding of learning processes.

In contrast, museum studies literature produced little, if no critique, of Kolb's experiential learning theory, since his views are not considered central to experience-centric learning in museums. Nevertheless, Kolb's ELT aside, the theoretical approach of Dewey's experience-centric learning could be critiqued for its holistic nature because it deems it challenging to classify what constitutes learning through experience in comparison to other modes of learning. This is due to the fact that every moment in our existence is considered an

experience of sorts. Therefore, it becomes problematic to identify how it relates to an experience and to define the process of learning associated with it. Also, Dewey's (1938) characterization of an experience as a continuum makes it difficult to associate the act of learning with a certain point on that continuum. This adds the conundrum of pinpointing when learning exactly happens and which experience correlates with said act of learning. Yet, precisely this impossibility of separating experience from learning repositions experience-centric learning as a focal tenet for museological experiences because of their interconnected and intertwined nature. Dewey's (1938) experience continuum allows for the museum experience to extend beyond the physicality of the experience and, as a result, allow for learning to continue manifesting itself beyond the museum visit.

Further critique toward Dewey's theorizing targets his own warning against the "overuse" of his theories (Hofstadter, 1962, p. 368). In light of said warning, re-hatching Dewey's philosophies over and over again presents a possibility of "overuse". Accordingly, the act of repetitively revisiting his theories to uncover new meanings could dilute his original arguments. Nevertheless, as stated in the methodological premise of a/r/tography, it is only through the act of re-examining that new meanings can emerge (Irwin, 2008a). Considering Dewey's pivotal role in shaping constructivism and progressive approaches to learning in museums, it becomes essential to continue reviewing his work in relation to contemporary museological contexts.

Another shortcoming of Dewey's theorizing surfaces in Henry Edmondson's (2006) writing, where he argued that "Dewey characterized his work as 'experimental'" (p.7). Within Edmondson's understanding, this experimental quality weakens the rigour of Dewey's philosophizing due to a general anti-utilitarian disposition in his body of work. Thus, according

to Edmondson, Dewey was never able to identify what worked from what failed throughout his experimental efforts. Interestingly enough, within the same body of writing, Edmondson (2006) provided a rebuttal by stating that "Dewey's self-described 'experimentalism' is helpful" because any inherent "incoherence is not a problem in itself but rather justifies the need for more experimentation, observation, and data collection" (p. 55). He deconstructed his own critique by pointing out the efficacy of Dewey's experimentalism attempts. But beyond that, it is essential to note that experimentation is characteristic of research, and without the investigative nature of research, research would not be research. Understanding research from a constructivist lens means accepting that an answer keeps evolving, and therefore experimentation does not cease. Yet, viewing research from a positivist lens means accepting one right answer. Contemporary research has distanced itself from the idea of *absolute* knowledge and now leans more towards *probable* knowledge. As a result, Edmondson's critique fades in light of the emergence of research humbleness, especially in qualitative research, and more so in arts-based research (Barone, 2006b, 2008).

Edmondson (2006) also criticized Dewey for his "intent on razing the traditional landscape as a prerequisite to building anew" to the extent of claiming that "his philosophy descends to nihilism" (p. 7). He viewed Dewey's challenging of the traditional as an act of refuting all previous theorizing about learning and education. Edmondson (2006) described Dewey's approach as "an unnecessary and irrational hostility to traditional pedagogy" (p. 34). Although Edmondson might have been right in pointing out that Dewey was dissatisfied with the status quo of pedagogy, Dewey's critical stance cannot be viewed as "unnecessary or irrational hostility". At the time of the progressive movement, Dewey amongst other theorists, clearly expressed their discontent with the educational setting, and actively theorized to change the

status quo (Hein, 2012; J. Martin, 2002). Dewey acknowledged the shortcomings of pedagogy, as it stood back then, and keenly sought to contribute to its change. His work might have been provocative or confrontational, yet it cannot be described as "unnecessary and irrational".

As for ascribing nihilistic tendencies to Dewey's work, challenging the traditional (especially religious theorizing) does not mean believing that life is meaningless. On the contrary, challenging long standing traditions is a way to further understand, which in return could lead to more appreciation of life and its multifaceted-ness. Dewey's body of work about the importance of experiences and reflection is proof that he believed in "meaningfulness as the very basis of life" (Morse, 2011, p. 7). He actively sought to "articulate the way inquiry makes us sensitive to the complexities and potential disruptions that emerge in our natural encounters with and negotiations of the world" (Rogers, 2009, p. 49). Dewey's theorizing perpetually encouraged engaging with life's tensions by reflecting on experiences in order to achieve higher levels of meaning-making, and thus a more involved and conscious existence in life. His work cannot be nihilistic because he determinedly advocated for aesthetic appreciation "to nurture an aestheticized notion of human action in crafting a meaningful existence"(Rogers, 2009, p. 52). Dewey appreciated life and cherished its nuances, and therefore constantly sought to challenge traditions in an attempt to expose a more meaningful existence.

Experience-centric Learning Web (ELW)

Out of a strong conviction regarding the relevance of experience-centric learning to museums, I find it important to carry Deweyan theorizing into contemporary contexts. To me, one of the strengths of experience-centric learning is its broad and encompassing understanding of learning in relation to experience. This is particularly pertinent, since experiences as well as

learning, are a complex set of actions and reactions. As previously explained, several theorists attempted to capture this complexity in their work: Kolb (1984/2015) tried to capture this complexity in his cyclical learning model, which he modelled after Lewin's four-stage cyclical experiential learning model. Also, McCarthy (1983) adopted Kolb's cyclical approach in her 4MAT system, which attempted to explain different learning styles. However, these cyclical representations of learning are problematic because: a) They could be viewed as a closed cycle, b) they do not allow for two stages or styles to materialize simultaneously, and c) they generalize through grouping learning into four distinct styles or stages.

Another interpretative attempt was put forth by Jerome Bruner (1960), who embraced a spiral approach to capture the intricacy of learning, which opens up the cycle and allows for infinite stages to develop. However, a spiral model does not account for stages or styles to exist concurrently due to the innate design of spiral structures forming one ring above the other. Despite the fact that Bruner's model creates room for infinite learning stages, it perpetuates hierarchy through dictating the existence of one ring in order to reach the next. Hein (1998) overcame this challenging conundrum by drawing upon constructivism's open, differentiated, and social understanding of learning, which resulted in his assertion that "learning involves access to a network" (p. 89). His idea of a network echoes the non-hierarchical nature of learning, as well as the interrelatedness of learning and experience.

Based on my own convictions of learning's non-linear and non-hierarchical qualities and inspired by Hein's (1998) network-based access to learning, I reiterate his interpretation into a visual model that mimics a network rendering. As a result, I introduce the Experience-centric Learning Web (ELW):

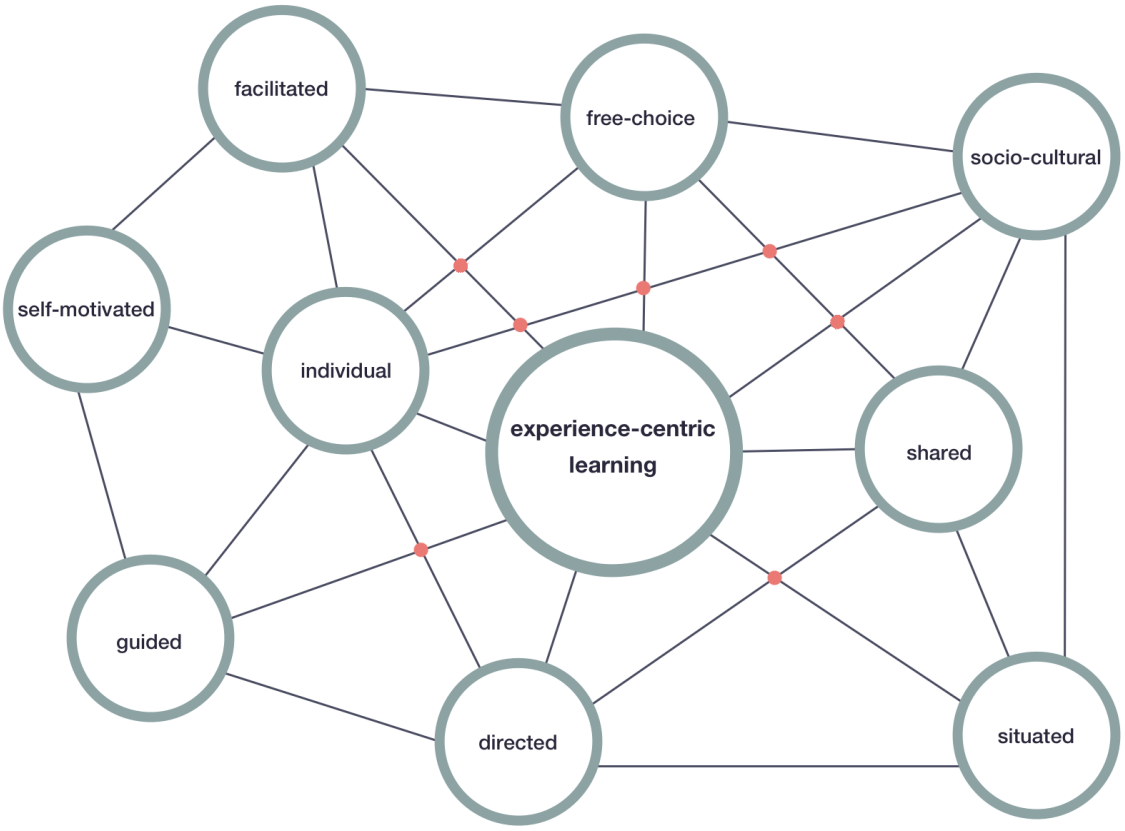


Figure 2.7. Experience-centric Learning Web (ELW)

Conceptually, this model addresses experience-centric learning as a web of interrelated modes of learning. It refutes hierarchy and accounts for the array of learning concepts that guide experiences in a museum setting: free-choice, self-motivated, facilitated, guided, directed, and situated. These learning concepts are often times not clearly identified in the literature, and accordingly, usually mentioned in passing or in blurred lines. I distil what these concepts mean to the ELW and how they could be characteristically framed within an experience-centric approach to learning. Museum settings account for free-choice learning because visitors are usually in control of their own learning processes. Free-choice learning "tends to be nonlinear, is personally motivated, and involves considerable choice on the part of the learner as to what to learn, as well as to where and when to participate in learning" (Falk & Dierking, 2000, p. 13).

Comparably, self-motivated learning is highly individual and commonly triggered by intrinsic incentives that activate the desire of the learner to learn (Falk & Dierking, 2018). Although similar, self-motivated learning does not exclusively manifest itself in a free-choice nonlinear process: Self-motivated learning could take place in rigorous educational settings that impose decisions rather than offer choices. Facilitated learning recognizes the effects of the environment on the learning process, in that it acknowledges all museum experience factors (see EFM) as mediators of learning. For one, "facilitated mediation" could be carefully planned but does not guarantee specific learning outcomes (Falk & Dierking, 2000, p. 139), whereas it could also be spontaneous due to random social interactions during a museological experience.

Guided learning is a process where learners are physically steered through a space by means of pathways and layout design to interact with exhibits according to a pre-planned curatorial order (Falk & Dierking, 2000; Hein, 1998). It is also a learning process that employs the "visitor's inquisitiveness to guide learning" (Paris & Hapgood, 2002, p. 39). This takes place through triggering the visitor's curiosity, either through an audio guide, a staff guide, a virtual tool, or the label text. In all cases, guided learning requires adequate communication to spark the visitor's inquisitive nature. This is most successful through posing questions to entice them to seek answers (Hirschi & Screven, 1988). Directed learning is a process where a person controls or directs the learning, which could be self-directed or externally directed (teacher-directed, staff-directed, parent-directed, etc.) (Falk & Dierking, 2000). Directed learning includes instructional methods in order to achieve specific learning outcomes (Falk & Dierking, 2013), and in return could be considered the educational aspect of learning in museums. Finally, situated learning acknowledges learning as dependent of its social context (Lave & Wenger,

1991). It recognizes the imprint of social interactions in relation to the situatedness of the learner to their immediate company, their visitor group, other visitors, as well as the museum staff.

The ELW builds on Deweyan notions of learner participation and active engagement (Dewey, 1938), which positions learners as shapers of their learning experiences. It also allows for individual and shared learning, as well as acknowledges the socio-cultural dimensions visitors operate in and are influenced by. Overall, the ELW highlights the interconnectedness of individuals to surrounding elements, be it before, during, or after the museum experience; it also allows for varied interpretations of the weight/importance of those elements to each individual. According to constructivism, the process of learning "is best represented by a dynamic network of interactive components" (Hein, 1998, p. 88). Visually, the ELW attempts to capture this dynamism through the interplay of each learning style with experience-centric learning. The web also highlights learning as a constant ebb and flow of processes and modes: The lines present the push and pull between one mode and another, while the dots represents crossing points where learning processes amalgamate. The ELW deliberately places experience-centric learning at the core of the model to stress the pivotal role experiences play in shaping our learning. From there, experience-centric learning embraces and invites different modes of learning as an act of acknowledging multi-modal ways of interpreting learning processes.

The ELW embraces the constructivist premise of non-hierarchical learning, echoes Dewey's theorizing about the interrelatedness of learning and experiences and captures the nature of museum-based non-compartmentalized learning. Through this multimodal understanding of how learning takes place in museums, the ELW offers a fresh take on a well-substantiated aspect of museum learning.

Transitions

Throughout this exploration, I employ the a/r/tographic rendering of living inquiry to extensively explore the conceptual and theoretical makeup of experiences in relation to learning in museums. I have come to re-stablish that museum literature builds on Dewey's theorizing about learning and experiences. Still, there has not been a clear term that frames his direct contribution to understanding museological learning in relation to experiences. The lack of a term that references his philosophizing further contributes to the vagueness that surrounds understanding constructivist theory in museum studies. Hence, clearly defining his contribution regarding learning and experiences as 'experience-centric' learning, helps zone in on his direct impact and relieves our understanding of experiential learning from Kolb's ELT clout.

Through this journey of living inquiry, I have also come to understand the complexity of defining museum learning through experience, which are neither compartmentalized, nor hierarchical, nor linear. In exploring the cyclical and spiral interpretations of learning processes in relation to experience, I have been able to pinpoint the shortcomings of said models in capturing the intricacy of learning in museums. As a result, I adopt a web-based model that emphasizes the complex, non-hierarchical, and non-linear qualities of museological experience-centric learning. The introduction of the Experience-centric Learning Web (ELW) along with the Experience Factors Model (EFM), helps substantiate Dewey's experience-centric learning anew in museums.

In the following exploration, I use the likened renderings of metaphor and metonymy to instigate an in-depth examination of a/r/tography as the method that frames the data assemblage and exploration approaches in this research. Looking at my inquiry journey through the lens of

metaphor and metonymy generates a multi-modal approach that facilitates “reaching beyond what we have literal words to say” (Siegesmund, 2013, p.141). On one side, metaphors have the clout to suggest new understandings through adopting the symbolic qualities of signifier substitutions (Springgay et al., 2005). On the other side, metonyms have the power to allegorically expose hidden understandings through a “word-to-word (or image-to-word, or image-to-image) relationship” (Springgay et al., 2005, p. 904). A/r/tographic metaphor and metonymy construct anticipated and unanticipated associations that help us “make sense of the world” (Irwin & Springgay, 2018, p. 173). Their representational qualities evoke new ways of looking at life and thus the way we make meaning of it.

Pause

Pause: Metaphor and Metonymy

Comparison

Distinction

Absorption

Reflection

Figure 2.8. Pause: Metaphor and metonymy (Medium: Photography)

EXPLORATION 3

Metaphor and Metonymy: Methodology

Metaphoric and Metonymic Nuances

Metaphor originates from the Greek *metapherein*, meaning "to transfer", and is employed as a figure of speech in which a word or phrase is used to refer to an object, person, or action to which it is not literally applicable (*Oxford English Dictionary*, 2012, p. 454). This is evident in the makeup of the term a/r/tography which symbolizes the use of art and graph as well as the multiplicity of the artist, researcher, and teacher identities. Metonym is a word, name, or expression used as a substitute for something else with which it is closely associated. It originates from the Latin *metōnumia* meaning "change of name" (*Oxford English Dictionary*, 2012, p. 454). The metonym is recognizable in the forward slash of a/r/t which reads as art but equally stands for the artist, researcher, and teacher roles. In a/r/tography, they are used as likened renderings that help make meaning of the world: metaphors through substituting signifiers and metonymy through displacing subject/object relations (Irwin & Springgay, 2008, 2018; Springgay et al., 2005).

Metaphor and metonymy work together to provide a means of expressing what we cannot literally articulate in words (Siegesmund, 2013). They bridge experience and language to grasp, generate, or lose meaning in an effort to invoke the manifestation of what is not and also what might become (Springgay et al., 2005). This allows for multiple interpretations and for the meanings to evolve and shift in space and time. As a consequence, a/r/tographic research offers the flexibility to move back and forth, create and erase, as well as revisit and reassess.

In this exploration, I engage with the renderings of metaphor and metonymy as a springboard to substantiate my a/r/tographic approach for this research. First, I use the metaphoric and metonymic qualities of a/r/tography as a method to mirror the metaphoric and

metonymic qualities of museums as signifiers. Second, I highlight how metaphor and metonymy embrace my curatorial choice of emulating a museum visit in the anatomical structure of my study. Third, I delve into an in-depth exploration of a/r/tography as a method and explain its philosophical and conceptual makeup. I employ metaphor and metonymy to frame my personal understandings of how art and word come together to provide a wider lens for this research. This is an attempt to highlight my relationality toward the use of art and graph in this a/r/tographic inquiry. I also use them to a/r/tographically position myself as an artist, researcher, and teacher in this study. By highlighting my positionality, I attempt to give the reader more insight into where I am coming from, and how my experiences shape my research approach (Springgay et al., 2005). In general, arts-based research values the author's subjectivity through acknowledging the individual nature of practicing arts-based or arts-informed inquiry (Barone & Eisner, 2012; Cole & Knowles, 2008; McNiff, 2008). I do so in order to examine a/r/tography's relevance as a method in exploring my guiding research question:

What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences?

Museums as Signifiers

Museums are metaphoric and metonymic representations of our tangible and intangible past, present, and future (Bedford, 2012; Carbonell, 2012b; Georgel, 1994; Gopnik, 2007; Pearce, 1994c, 1995; Semedo, 2012; Sherman, 1994). Metaphor and metonymy are an integral part of the museum world, a multilayered process beginning with object collection, curation, then visitor interaction with the narrative, all of which is contained by the museum architecture. It all starts with object collection and acquisition, where the act of collecting metonymically and

metaphorically symbolizes "capital accumulation" (Belk & Wallendorf, 1994, p. 241). The museological representation of our world starts with making a choice about what encompasses meaningfulness, importance, and value, and thus deemed worth acquisitioning and preserving for generations to come. Hence, the act of selecting and accessioning an object to a museum collection metaphorically and metonymically lends it an ascribed tangible and intangible capital (Pearce, 1992).

The curatorial practice also heavily relies on the power of metaphor and metonymy: Curators use an object to represent a bigger idea, or a time lost; the object is contextualized to signify a complex set of physical, spatial, temporal, emotional, and abstract elements (Hodder, 1994; Pearce, 1992, 1994a, 1995; Wehner, 2012). As Susan Pearce (1994) explained: "What distinguishes the 'discrete lumps' from the rest – what makes a 'movable piece' in our sense of the term – is the cultural value it is given" (p. 10). So, a piece of stone - *a lump* - from an ancient ruin encased in a museum display, ultimately, stands metaphorically and metonymically for a people, civilization, culture, and a value system. The curators decide on the narrative that best highlights the object's metaphoric and metonymic context, and accordingly decide on positioning, display, and overall design elements to create an *exhibit*. In return, the visitors interact with the exhibit, and this interaction is framed by the metaphors and metonyms carried by the object(s). Mieke Bal (1996) wrote that the metonymic aspect of said interaction "reinserts the narratological perspective that frames the walking tour in the museum as a narrative that must be taken seriously as a meaning-making event" (p. 152). Whereas, Leslie Bedford (2014) suggested that by accessing metaphors, as facilitated by museums, people "become capable of responding to its generative energy" (p. 97).

The aforementioned multilayered experience is contained by a museum architecture that serves as an extension to the metaphoric and metonymic existence of the museum (Kaufman, 2012; Koven, 1994). Museum architecture "stands metaphorically as well as physically for the structures that define the boundaries between 'inside' and 'outside'" (Lumley, 1988, p. 8). A museum structure represents the borderlines between a constructed everydayness and our manifested everydayness. Museums are also buildings "laden with associations" (Lumley, 1988, p. 8), whether positive or negative, they carry metonymic and metaphoric signifiers that are individually internalized and interpreted by the visitor. A repurposed palace that now serves as a museum carries different meanings than a farm house that has been turned into a museum.

Moreover, metaphor and metonymy do not only exist in collecting, subject curation, narratives, exhibit design, and architecture, but they also exist in the minds of the visitors after they interact with museum displays. As Susan Pearce (1994b) explained, "museums collect objects and display them, people visit galleries, and we all construct our explaining stories from what we see, read and remember; and all these meanings, as we have seen, are the continuous re-creation of significance through the perpetual play of metaphor and metonymy, of signification and signifier" (p. 28). Every museum experience leaves a distinct symbolic imprint on the visitor. Within a constructivist framework, this is viewed as the individualized meaning-making process that takes place in and with museum experiences.

Anatomical Metaphor and Metonymy

Inspired by the representational nature of metaphor and metonymy within the museum tradition, I model my research structure as a museum experience. I curate my work as an exhibit of thoughts, experiences, understandings, and new understandings. This is a conscious act of

metaphoric conveyance that combines the lightness of my lived experiences with the rigour of academic research, and a metonymic undertaking that bridges the personal with the global. In harnessing the symbolic qualities of metaphor and metonymy, I use the six a/r/tographic renderings to symbolically guide the inquiry process of this study (Irwin & Springgay, 2008; Springgay et al., 2005). As mentioned above, an exhibit is a metaphoric and metonymic representation of concrete or abstract notions in our surroundings. And, considering the fact that I am approaching my research as a textual and visual exhibit of word and image, I inherently employ the metaphoric and metonymic curatorial undercurrents to create a textual and visual representation of the inquiry process. Through a/r/tography as a method, metaphorically, each rendering symbolically represents a thematic exploration, whereas metonymically, the renderings conceptually embody the structure of this study.

This exploration uses a metaphoric and metonymic lens to initiate an in-depth examination of a/r/tography as a method that frames the conceptual makeup of this body of work as well as the data assemblage and exploration approaches. Traditionally, a method is only prevalent in the methodology chapter, which addresses the data collection and analysis approaches. It is usually presented as a standalone section within the organizational structure of the research. However, given that a/r/tography is anatomically an integral part of the research process (Carter, 2014b; Carter & Triggs, 2018; Sinner et al., 2006), it is also entwined and interweaved in every exploration within this research. This interwoven a/r/tographic approach is characteristic of living inquiry, since our research endeavours cannot be separated from the methodological, conceptual, contextual, and theoretical frameworks that govern our lives and work. Bringing traces of the a/r/tographic approach into each exploration, guides and initiates investigations and inquiries that could ultimately lead to extracting new understandings of the potential of

museums. As such, I attend to the renderings throughout my work, while also carving the space to respectively examine each of them within an exploration. At this point, this exploration creates an opportunity to rigorously attend to metaphor and metonymy to frame my methodological framework in order to uncover deeper meanings and new understandings.

On A/r/tography

A/r/tography is a methodology founded on the theoretical underpinnings of arts-based research (ABR) which are rooted in qualitative research (Leavy, 2015; Sullivan, 2005, 2010). Much like the constructivist framework that governs museums, a/r/tography builds on Deweyan philosophies that posit artistic expressions as complete immersion into the subject matter resulting in a "fresh" outlook (Dewey, 1934, p. 73). Dewey's work also laid the a/r/tographic foundations for understanding the importance of experiences, aesthetic experiences, and the process of meaning-making (Carter, 2015; Irwin, 2004; Naths, 2004; Pente, 2004; Siegesmund, 2012, 2013). In general, qualitative research entails "purposely adopting different lenses, filters, and angles" to unearth "new perceptions and cognitions" about the world (Saldana, 2010, p. 4). Arts-based research, specifically, encourages new ways "of thinking about the nature of knowledge and how it can be created" (Eisner, 1991, p. 227). Moreover, a/r/tography seeks to broaden our understanding of life's complexity through acknowledging the spaces *in-between*, the interconnectedness, and the relational in our existence (Bickel et al., 2011; Carter, 2014; Irwin & De Cosson, 2004; Irwin & O'Donoghue, 2012). These are represented in our multiple roles artist/researcher/teacher, our practice, embodied in theorizing, art-making and writing, and our understanding, manifested through our meaning-making (Irwin & Sinner, 2013; Irwin, 2008; La Jevic & Springgay, 2008; Springgay, Irwin, Leggo, & Gouzouasis, 2008). Engaging with a/r/tography as a methodological framework is a process of devoting artform and writing to

explore phenomena and create new meanings.

The arts-based theoretical framework encourages methodological pluralism out of the strong belief that it enriches and challenges conventional research methods (Barone & Eisner, 2012; Eisner, 2008). The array of arts-based research methodologies aims to encourage new ways of understanding through moving beyond textual representations and introducing artistic means to express and explain, such as poetry, collage, photography, painting, drawing, music, dance, narration, theatre, film, media, among other expressive and performative arts (Butler-Kisber, 2010, 2014; Eisner, 1991; Leavy, 2015; McNiff, 2008; Mitchell, 2011; Mitchell et al., 2010; Willis, 2008). According to Butler-Kisber (2010), "traditional, textual descriptions of qualitative findings do not adequately reflect the complexity of studying human behaviour" (p. 229). Therefore, integrating the arts in research facilitates the portrayal of this complexity due to the innate convoluted, symbolic, and complex nature of the arts. In essence, the arts are able to capture what text fails to transmit.

In an attempt to build on the intricacy and interrelatedness of artform and text, a/r/tography is a relatively fresh addition to the arts-based repertoire of methodologies (Irwin et al., 2006; Leggo et al., 2011; Springgay, Irwin, Leggo, et al., 2008). Not only does it add to ABR's pluralism, but also offers, within its approaches, a pluralistic and multimodal lens to examining data. This pluralistic and multimodal lens enriches the research process through positioning creativity and criticality at the epicentre (Sullivan, 2005). In a/r/tography creativity and criticality are highly subjective because they emerge from a strong commitment to living inquiry, which is personal, intimate, and unique (Carter & Irwin, 2014; Detlefsen, 2012; Irwin, 2008b; Irwin & Springgay, 2008; Siegesmund, 2013, 2014; Springgay et al., 2005). Living inquiry is an

engagement with knowing and understanding; it is an active process that attempts to simplify the complex and complicate the simple (Irwin & Springgay, 2008; Springgay et al., 2005). New meanings materialize through exploring the fuzzy and ambiguous spaces in-between the artist, researcher, and teacher roles, as well as the intricate and complex interactions of the visual and textual. These correspond to the idea of exploiting "the power of 'vagueness' to 'get at' what otherwise would seem unrecoverable" (Barone & Eisner, 2012, p. 4). This *vagueness* is echoed in a/r/tography's non-formulaic-based nature, where the meeting of art and writing creates methodological rigour (Irwin, 2004; Lea, Belliveau, Wager, & Beck, 2011).

A/r/tographic Renderings

The conceptual framework of a/r/tography is comprised of six renderings: living inquiry, contiguity, metaphor and metonymy, openings, excess, and reverberations. A/r/tographic renderings replace concepts, since concepts "appear fixed with distinct borders that allow for ready categorization and sorting" whereas renderings are "shape-shifting rather than shape-fixing" (Siegesmund, 2013, pp. 140-141). They encapsulate the interplay between theory, practice, and creative activity, where they interact with each other and impact one another (Irwin & Springgay, 2008). This interplay is also reflected in the roles of the artist, researcher, and teacher, where a/r/tography acknowledges the complexity and fluidity of these positions, as well as the spaces in-between their interactions. Within the a/r/tographic framework, a rigorous attending to renderings results in the emergence of deeper meanings, and consequently new understandings (Irwin & Springgay, 2008).

Openings

A/r/tographic openings offer opportunities to explore research beyond our current understandings. These openings are not meant to offer straightforward insights and spark immediate realizations; they require extensive work to unravel what they have to offer. Openings rattle and disrupt research comfort and safety through exposing contradictions and resisting predictability, which results in complex and intricate narratives (Irwin & Springgay, 2008; Siegesmund, 2013). The idea behind openings is based on the notion that the contiguity of artist, researcher, and teacher, image and text, as well as author and viewer, is "open and porous" (Springgay et al., 2005, p. 905), offering possibilities of new encounters and thereafter new meanings to emerge.

Living Inquiry

A/r/tographic living inquiry is a rendering that describes the acts of research and investigations in relation to lived experiences. These acts manifest themselves as artful, theoretical, and practical in reflection of the artist, researcher, and teacher identities (Irwin & Springgay, 2008). Living inquiry posits life as ever-changing and lacking constancy, thus leaving researchers in a permanent state of not-knowing and answer-seeking (Siegesmund, 2014; Springgay et al., 2005). It allows researchers to ask complex questions that could not be answered in linear and compartmentalized methods. It also "embraces erasure" which grants a/r/tographers the flexibility to re-shape and re-mould their work to highlight newfound meanings and understanding (Siegesmund, 2013, p. 141). As a result, a/r/tography eliminates research absolutism to reflect life's lack of consistency.

Metaphor and Metonymy

In a/r/tography, metaphor and metonymy bridge the gap between the textual and the visual: metaphor through "the substitution of signifiers, where one signifier takes the place of the other in the signifying chain" without being "equal" (Springgay et al., 2005, p. 904); and metonymy through a "word-to-word (or image-to-word, or image-to-image) relationship, which emphasizes a displacement in the subject/object relation, such as part to whole encounters" (Springgay et al., 2005, p. 904). The use of metaphor and metonymy is of harmony and tension because their interplay allows for meanings to create and un-create themselves and practices to do and un-do themselves (Irwin & Springgay, 2008, 2018; Springgay et al., 2005).

Contiguity

A/r/tographic contiguity is a rendering that helps frame the notions of adjacency and liminality (Irwin & Springgay, 2008). Liminality primarily lies in the manifestation of the forward slash "/", which is the relationship between the artist, researcher, and teacher identities. Commonly, each of them are considered a standalone component of a personality; yet, within the understanding of contiguity, the three roles exist concurrently, adjacently, and more often than not intersect (Carter, 2013, 2014b; Pinar, 2004). Contiguity is also the meeting of *art* and *graph*, image and word, artform and writing; a meeting in which the visual and textual complement and/or challenge one other (Springgay et al., 2005). A/r/tography does not view art and graph as isolated from one another but as contiguous. Much like identities and modes of expression, contiguity also recognizes the liminality of ideas. It allows for observing the in-betweens of adjacent concepts, which in return sheds new light on the obscure and renders the invisible visible.

Excess

In a/r/tography, excess is a state that is created when "controls and regulation disappear and we grapple with what lies outside the acceptable" (Irwin & Springgay, 2008, p. xxx). It defies research norms through embracing what would not usually count as conventional research material. Excess allows for the "inclusion of outlier data" (Siegesmund, 2013, p. 142), whether monstrous, insignificant, or magnificent (Irwin & Springgay, 2008). Excess is a set of data that might uncover new pathways of understanding a phenomenon, change perspectives, or rattle the status quo of research. A/r/tographic excess is also a state of *becoming* through making and writing from within (Carter, 2013; Irwin, 2013; Springgay et al., 2005). And, *becoming* is a state of excess that allows ordinary experiences to re-shape us into being through exposing ourselves while re/exploring them.

Reverberations

Reverberations refer to the dynamic and dramatic movements that shift our understandings, either through delving deeper into meaning or swaying towards a "slippage of meaning" (Irwin & Springgay, 2008, p. xxx). They are the result of delving into a/r/tographic inquiries, where the back and forth movement takes place between the visual and textual as well as the author/viewer/reader constellation. Reverberations also exist in the undercurrents of the artist, researcher, and teacher interactions, where the motion that results from the perpetual interplay of the three roles enables the new to emerge from the established (Springgay et al., 2005).

Meeting of Art and Graph

In this journey into the realms of museums and a/r/tography, I want to bridge my perception of the world with my academic endeavours; a probable longing shared within the arts-based research community to merge the "scholar-self" with the "artist-self" (Leavy, 2015, p. 1-2). This longing might have stemmed from a highly personal and individual standpoint, but it also carries global nuances. Trying to explore the theoretical and contextual frameworks governing my research through the mono-modal lens of the scholarly word dismisses the liminal nature of my being and work as the contiguity of art and text. My lived experiences cannot be solely defined through academic text because they do not exclusively evolve around academia. Equally, museum experiences cannot be exclusively portrayed in word, since this mutes the visual facility of the museum. In adopting an a/r/tographic approach, I am capitalizing on the powers of multimodality in arts-based research to "call into question that which has become the all-too-familiar" (Barone & Eisner, 2012, p. 23). Effectively, through adopting various modes of engagement I am challenging our current understandings to uncover new meanings.

In a/r/tography, the contiguity of art and graph warrants a space to capture the visual facility of museums, the artful expressions of myself, as well as the pictorial nature of the world in which we live. It is a methodological approach that mirrors the multi-faceted nature of lived experiences; an approach that affords to channel the fluidity and changeability of life. A/r/tography is also a method that uses the familiarity of art to complement the convoluted nature of academic text. To engage with a/r/tography is to allow the generative powers of art to drive the discourse beyond the confines of academia. I view art as a means of breaking barriers and demystifying the perceived complexity of academic dissemination. Imagine with me that I want to describe the flexibility of arts-based academic research, and I need to decide amongst the

following options:

Option 1: I write a well sourced paragraph on the fluidity and multi-modality of arts-based research in contrast to mono-modal methodological approaches. I also epistemologically situate arts-based research, as well as explain the theoretical framework that governs the approach. Definitively, I describe the contextual setting of the methodology in relation to the research question I am attempting to answer. To conclude, I state the limitations of art-based research in order to stay true to the openness represented by the arts.

Now think about this:

- How many big jargon words did I use in explaining my writing plan?
- How many sources will I cite? Just roughly think about it.
- How many of those sources would a non-specialist have read?
- How many sources would a specialist have read?
- How alienated would you feel if you had no idea who I was citing?
- How inaccessible is the text, considering I will use words like epistemology, multi-modality, etc.?

Option 2: I decide on a purely visual representation of what I think symbolizes the flexibility of arts-based research. My medium of choice is photography, since it offers a sense of familiarity to the viewer. We are visually acquainted with photographic presence in the media, most of us have daily interactions with our phone integrated cameras, and we are accustomed to using photography to document our lives (Knight, 2016). Hence, my medium is intended to maximize artistic accessibility and minimize arts inhibition. I also use no text, I provide no title, or

descriptive information to explain the image. I completely rely on the power of the image to guide the audiences in their interactions with the photograph. And, this is the concept:

Figure 3.1. Photograph of rubber bands

Now think about this:

- How many words did I use in this visual representation?
- Do you need to be a specialist in order to form an opinion about your impression of the photograph?
- How many levels of interpretation are open to the viewer?
- Does this image carry the stigma of complex academic writing?
- Does this image afford flexibility in dissemination?
- Is there room for this photograph to be decontextualized?
- Is the artist's intent clear?
- Is the thematic linkage clear?

Option 3: I opt for a combination of art and text, where one medium's capacities complement the other medium's limitations. Within this option, I have multiple sub-options to choose from depending on how much conceptual and contextual details I want to offer my audience. On the one hand, if I want to allow for the viewers' perception to guide their understanding of the photograph, then I will choose to place the image of the rubber band along with only a title "The flexibility of arts-based research". On the other, if I consider the thematic linkage insufficient to bring my message across, then I will add to the latter a small piece of text with cues and triggers to guide the viewers' thought process. Mind you, I am aware that I cannot guarantee prompting the same perceptive reaction from all my viewers given that I am acknowledging their individualized contribution to the process (see exploration 2). Nonetheless, the additional text is intended to channel the viewers towards a specific contextual and conceptual framework governing the artistic representation. This text could be in the format of an artist's statement:

When thinking about the flexibility of arts-based research, I thought of the elasticity of the rubber band. The band represents the fact that knowledge has no specific start or end. Also, the band symbolizes how research brings ideas together and holds them into place. But, an elastic band also ruptures, breaking the roundness and starting a new shape. There are endless possibilities.

Or an artist's statement in poetry, like I usually do with my pieces:

Knowledge like roundness. No start or end.
Art like rubber. Flexible and expanding.
Research like band. Brings together.
Overall fragility. Breaks and re-shapes.
Endless possibilities.

So, within the mixing of art and text, the following three levels of rendering present themselves:

a. The image is accompanied by an indicative title to contextualize the art, while leaving great room for personal interpretation.
b. The image is supplemented by an indicative title along with a descriptive text to further contextualize the artwork yet still leave room for personal interpretations.
c. The image is complemented by an indicative title along with a poetic expression of the context of the artwork. This helps contextualize the artwork and also doubles on the artistic media used to convey the message. This doubling augments the presence of art through art and text, creating more room for personal interpretations.

Hereafter, I share three samples of possible representations of the mixing of the visual and textual to convey the flexibility of arts-based research.

The flexibility of arts-based research

Figure 3.2. Option 3 (a) - Photograph and title

The flexibility of arts-based research

When thinking about the flexibility of arts-based research, I thought of the elasticity of the rubber band. The band represents the fact that knowledge has no specific start or end. Also, the band symbolizes how research brings ideas together and holds them into place. But, an elastic band also ruptures, breaking the roundness and starting a new shape. There are endless possibilities.

Figure 3.3. Option 3 (b) – Photograph, title, and text

The flexibility of arts-based research

Knowledge like roundness. No start or end.
Art like rubber. Flexible and expanding.
Research like band. Brings together.
Overall fragility. Breaks and re-shapes.
Endless possibilities.

Figure 3.4. Option 3 (c) – Photograph, title, and poetry

Now think about this:

- Is the thematic linkage clear?
- With the presence of the text, is there room for the photograph to be decontextualized?
- Is the artist's intent clear?
- Do you need to be a specialist in order to form an opinion about your impression of the photograph?
- How many levels of interpretation are still open to the viewer?
- Do the image and text carry the stigma of complex academic writing?
- Do the image and text afford flexibility in dissemination?

There's something about the latter option, where through the combination of art and text a more holistic, yet open, alternative presents itself. Personally, I find the meeting of word and art an inevitable and natural occurrence, due to the liminal existence and constant intersectionality of artform and word, art and science, knowledge and creativity. We are surrounded by this constant intersectionality of word and art: billboards, window displays, books, magazines, newspapers, television, theatre, etc. So, with research reflecting our lives, mirroring this liminal existence becomes integral to a/r/tographic inquiry. Contextually, the combination of art and text in arts-based methods employs a "larger spectrum of creative intelligence and communications" (McNiff, 2008, p. 30). In terms of research process, this broader choice of methods allows for the generation of a richer set of information. In relation to research dissemination, it communicates through different modes, and thus invites a wider range of audience to participate in the research exchange process. In essence, a multi-modal approach to research opens up multi-faceted entry points into understanding research.

Role Métissage

When I first set to embark on my PhD journey, I had a limited and traditional understanding of academic research which led me to believe that I would have to assume a purely academic role and leave my museum practitioner and artist selves behind; two roles that have shaped and influenced most of my life experiences. I have lived artfully since I can remember, studied art in my undergraduate degree, studied museums in my post-graduate degrees, and practiced museologically in my métier. So, in employing a/r/tography, I find solace in the hyphenated space of the artist, researcher, and teacher, which affords a role métissage that mixes and combines our multiples existences (Irwin, 2004). Accordingly, I try to channel my compound voices in an attempt to profit from the ability to contribute from a stance enriched with life experiences.

A/r/tography allows for this role métissage; the mixing, combining, and meeting of the hyphenated (Carter, 2013; Chambers et al., 2008; Irwin, 2004). Métissage originates from the Latin word mixtus meaning mixed ("Dictionnaires français Larousse," 2016), and according to Cynthia Chambers et al. (2008) its Greek homonym is metis; "Metis, the wife of Zeus, was gifted with the powers of transformation" (p. 141). Within the framework of a/r/tography, métissage indicates the "language of the borderlands, of English-French, of autobiography-ethnography, of male-female" (Irwin, 2004, p. 29). The borderland is the space in-between and "between the in-between" (Irwin, 2004, p. 31), where the forward slash metaphorically represents a space where contradictions and similarities meet. The forward slash is also a metonym for the artist, researcher, teacher existences, where the defined and undefined contiguously exist. This complex mixtus symbolizes the intricate relationship of myself as a museum practitioner, trained studio artist, an educator, and an academic and museum researcher.

Throughout the course of this inquiry journey, I acknowledge that I might identify with one identity to frame an experience or occurrence; I also recognize that this one identity carries traces of my other identities. The latter reference to "other identities" is not only in relation to my professional selves, but is also in relation to my other existences as a female, daughter, sister, dog-parent, etc.

The beauty of a/r/tography lies in the fact that it sidelines the tensions that arise from "boundary positions" (Carter, 2014, p. 4), where one has to leave behind one identity to assume a new one. Instead, it embraces a set of multiple identities within the contiguous space of role métissage. Considering that each part of our self is shaped by a different set of experiences, this allows for the channelling of multiple viewpoints and the bridging of perspectives. A métissage existence provides a wider lens that helps "re-create, re-search, and re-learn ways of understanding, appreciating, and representing the world" (Irwin, 2004, p. 29). That is why I strongly believe that acknowledging the contiguity of my multiple selves could create new meaning-making opportunities in understanding museum-based learning and experiences.

A: Artist

I am a studio-trained artist. I studied applied arts and art history during my bachelor's degree. Professionally, I practice my art through my role as a university lecturer at McGill University; I teach painting, drawing, design, and basic art media. Recreationally, I use art as a creative outlet in my spare time. In this research, my engagement with my imaginative and artistic capacities is the embodiment of my artist self. Conceptually, I consider the creative endeavours within this study my artist contributions. Materially, the poetry, photographs, paintings, and drawings are the manifestations of the artist.

R: Researcher

As an academic, I am a researcher. As a museum specialist, I am also a researcher. I conduct research for exhibit development, content development, visitor experiences, etc. Research is integral to both institutions, academic and museological. Although there is a general understanding that a researcher operates within certain professional circles, I view research as an innate response to general human curiosities. We are constantly exploring and investigating in order to better understand. We are always searching for answers, and more often than not we re-search them. Research is denoted in human curiosity, but the approach to research is what constitutes its validity and ascribes a researcher value to the undertaker.

In this study, I view myself not only as a researcher within my professional capacities but also in response to my general curiosities. My researcher-self leads the journeys of explorations within this work of living inquiry.

T: Teacher

Fresh out of university, I became an art teacher; it was my first official job after completing my undergraduate degree. I was the only art teacher in school, and I taught art at the elementary and secondary levels. Later, I became a university lecturer teaching art and arts-based teaching methods for the elementary and kindergarten classrooms. I find the term "teaching art" very troubling because it suggests that art is a topic that has measurable outcomes. Art is a subject that is highly personal and delicate, and accordingly every student's journey is unique. As such, it begs to question whether uniqueness is taught or mediated. Nonetheless, for clarity purposes, I continue using the word teacher to describe my art mediation attempts. In the same

spirit, I do not regard the teacher role exclusive to the classroom: I view teachers as facilitators of learning, so I constantly recognize teacher moments outside of the school context. For example, in museums, sometimes visitor experience animators slip into a teacher role, other times, when trainers are training staff, I spot the occasional teacher cloak in play.

Within this research I embody the teacher identity in the moments where I facilitate learning in an artful or textual capacity. My choices for expression, thought presentation, idea dissemination, and knowledge transfer are mainly guided by my teacher instincts.

Rhizomatic Relations

At this point, it is important to reiterate that the metaphoric and metonymic representations of my artist, researcher, and teacher selves cannot be compartmentalized, nor can the symbolic relationship between art and graph in this work. Breaking down the elements that contribute to my identity is an act of research with the aim of gaining better understanding of the bigger picture. Also, dissecting the assemblage of art and text is meant to de-construct to re-construct. This work stays fundamentally true to the a/r/tographic premise of interconnectedness, which builds on the metaphoric use of rhizomes in the work of Gilles Deleuze and Felix Guattari (1983a, 1987):

> A rhizome (also known as rootstocks) is a type of plant stem situated either at the soil surface or underground that contains nodes from which roots and shoots originate […]. Rhizomes are unique in that they grow perpendicular, permitting new shoots to grow up out of the ground. When separated, each piece of a rhizome is capable of producing a new plant. ("Rhizome," 2017)

To create their philosophical foundation of rhizomatic relations, Deleuze and Guattari (1983a, 1987) build on the nature of rhizomes as complex and interconnected shoot and root systems. They rely on the organic capacity of rhizomes to connect with other root or plant structures at any point to initiate the "principles of connection and heterogeneity" (Deleuze & Guattari, 1983b, p. 11). In Deleuzeoguattarian philosophy, this natural ability of rhizomes to connect at any point translates as a signifier of the constant "middle" (Deleuze & Guattari, 1983b, p. 47); the in-between that has no beginning and no end but is always connected to something. Metaphorically, this is strongly echoed in my study through my a/r/tographic situatedness of my museum practitioner in the forward slash of my artist/researcher/teacher identities. I cannot testify to when one starts and when the other begins, I cannot determine the exact nature of one versus the other, and most importantly, I cannot decide which one represents me. In essence, I am a result of a rhizomatic system of identities, existences, and structures. Identical to a rhizome, there is no order to my rhizomatic constellation: I originate from multiple points and grow in all directions (Carter, Beare, Belliveau, & Irwin, 2011).

The philosophical premise of Deleuzeoguattarian rhizomes spans beyond my positionality in this study and affects the study approach. This work is strongly guided by rhizomatic relationality vis-à-vis the theoretical and methodological frameworks: The rhizomatic principles underscore the a/r/tographic premise of interconnectedness and relationality, where theory and practice seize to exist as separate entities and instead merge to cultivate one another (Irwin, 2013; Irwin et al., 2006). Theory and practice are no longer sequential or consequential occurrences; their rhizomatic relationality annuls any compartmentalized cause and effect existence. Thus, a/r/tographic research becomes an act of living inquiry (Bickel, 2006; Carter, 2014a; Leggo et al., 2011), where inquiry moves beyond trying to answer fixed questions to

allowing the questions to transpire through practice. “For a/r/tographers this means theorizing through inquiry, a process that involves an evolution of questions” (Irwin et al., 2006, p. 71). This evolution negates absolutes and certainty and allows for an ever-changing and ever-shifting perspective on a study. In staying true to a/r/tography’s philosophical construct, my study remains a work in progress, an evolving piece that keeps unveiling new perspectives and understandings through the acts of practicing research, art, writing, and living.

In acknowledging the rhizomatic relationality of theory and practice, I am inherently recognizing the relationality of art and text. According to Deleuze and Guattari (1983b), the metaphor of the rhizome represents the ability to connect one point to another without necessarily sharing the same features. This “puts into play very different regimes of signs and even states of non-signs” (Deleuze & Guattari, 1983b, p. 47). Similarly, in a/r/tography, art and graph are connected despite being different in nature. It is in this connectedness that the uniqueness of the push and pull dynamics of the contrast between art and text stimulates new meanings and significances. After all, “people do not make meaning or express it only through words; they also do so by art, and visual art, in symbol, in theatre based art, and through photography, music, dance, story, or poetry” (Merriam & Tisdell, 2016). We are creatures of multimodal impressions and expressions; we do not perceive our world through one lens nor do we express ourselves through one medium. Opting for text versus art, or vice-versa, is the antithesis of human nature, an artificial compartmentalization of expression through omission. I embrace the human versatility and wide-ranging modality through the meeting of art and graph in my dissemination approach. This embodies the rhizomatic interconnectedness of our existence(s) in the work we produce.

In perpetuating the Deleuzeoguattarian philosophy, I choose to mirror a rhizomatic quality in the arrangement of this work. Building on the many characteristics of the rhizome metaphor, I specifically echo the map-like qualities of the rhizome in my planning and diffusion. According to Deleuze and Guattari (1987), a rhizome, unlike a tree, is a horizontal and interconnected complex root system that lacks a "base sequence" (p. 12). This base sequence denies an order or a hierarchy, leaving a rhizome open and ever-evolving. Similarly, I curate my research in a series of explorations, granting the audience the agency to experience it as a whole or in sections. Just like a map, the curatorial arrangement of my work offers multiple entry points (Deleuze & Guattari, 1987). This renders the research more accessible, vulnerable, and open. Viewing this study from a rhizomatic map lens, I am asserting the non-hierarchical qualities of living inquiry in contrast to other hierarchical methods which "always involve […] an alleged 'competence'" (Deleuze & Guattari, 1987, p. 14). This expressively links back to my earlier discussion of the process of artful inquiry not originating from mastery but rather from a place of not knowing. Adopting a map arrangement is, in my estimation, "epistemologically humble" (Barone, 2006b, p. 221, 2008, p. 46), because it affords to challenge the traditional ways of disseminating research. Moreover, the Deleuzeoguattarian take on a map being "susceptible to constant modification" directly reiterates the openness of arts-based research in acknowledging the shifting nature of our perspectives and understandings (Deleuze & Guattari, 1987, p. 13), thus refuting research absolutism (Siegesmund, 2013).

Unpacking Rhizomes

Deleuze and Guattari's (1983a, 1987) rhizome is a multilayered and interdisciplinary concept that spans throughout their literature and touches upon politics, religion, geography,

geophilosophy, geopolitics, sociology, arts, and culture. Thus, extracting the metaphor of the rhizome from their overall body of work could be considered an act of decontextualization, similar to taking an object out of a heritage site and placing it in a museum setting. In museum terms, referencing the rhizome, one aspect of their theorizing, means excavating it out of their original body of literature and reframing it within the fabricated construct of my own study. As such, the rhizomatic metaphor risks losing its 'authenticity' through probable decontextualization and accordingly misinterpretation (Phillips, 1997). However, since the Deleuzeoguattarian rhizome represents the constant "middle" (Deleuze & Guattari, 1983b, p. 47), it denotes a state of permanently being part of something. This means that the rhizome is conceptualized as a metaphor that is anticipated to participate in the middles of other bodies of work. On a philosophical level, the rhizome carries over its previous connections to Deleuze of Guattari's body of work into my a/r/tographic inquiry. Therefore, by referencing the rhizome in relation to my museological inquiry, I am not decontextualizing it from the guiding principle of the Deleuzeoguattarian philosophy but rather embracing its mantra of always connecting the established with the new.

Moreover, adopting a/r/tography's rhizomatic foundations in my inquiry is a metaphoric representation of Deleuze and Guattari's general philosophical standpoint, which evolves around challenging and dismantling power structures (Jagodzinski, 2010; O'Sullivan, 2006a). Here, power is represented in the nature of the academy as a positivist institution that seeks affirmation through its status amongst other academic establishments (Leaf, 2019). Universities actively pursue the process of establishing their hierarchy in comparison to other universities in order to assert their research clout, and accordingly, secure their share of institutional funding. Assertion and affirmation are two characteristics that strongly reverberate in the positivist approach to

learning because they afford quantifiability and deductibility (Leavy, 2015). In return, these quantifiable and deductible qualities of positivism allow academia to prove and assert its validity (Leaf, 2019; Leavy, 2015). However, since the introduction of arts-based research "as a viable approach" to academic investigations, there has been a lot of "pressure on the traditional structure and expectations of the academy" (Mitchell, 2011, p. xi). Arts-based research has rattled the traditional and disrupted the status quo of academic undertakings by introducing probable knowledge as an alternative to absolute knowledge. So, by engaging with a/r/tography as a method that is rooted in arts-based research, I am essentially "disrupt[ing] the master narrative" of academic traditions in order to "play" with what is considered to be the "truth" (Siegesmund & Cahnmann-Taylor, 2008, p. 238). I am deliberately challenging the positivist hierarchy by recognizing my research as organic, open, and horizontal.

A Personal Rhizomatic Note

Initially, I was reluctant to delve into Deleuze and Guattari's philosophical writings because I was never a hardcore enthusiast. I find their work insufferable to navigate, especially when they digress and opt for "bizarre cross fertilisations" (O'Sullivan, 2006, p. 9). It was a lengthy and difficult journey trying to decipher and distil some of their most relevant work like: *On the Line*, *A thousand Plateaus*, and *What is Philosophy?* (Deleuze & Guattari, 1983a, 1987, 1994). However, once I started decluttering their writing from the multilayered geopolitical connotations and began focusing on the philosophical aspects that guide a/r/tography, I found a new lens for looking at their work. I started reading their writings with more openness and noticing the openness they are trying to accomplish through the metaphoric use of the rhizome. This newfound openness does not negate the fact that it was still excruciating, but there were

moments of gratification during this painful journey. The rhizomatic self-actualization manifested itself in moments where my own traditions and beliefs were being challenged. On the one hand, Deleuze and Guattari's work personally challenged me to reconsider my views of academia, and on the other hand, questioned my research principles of accessibility through engaging with their inaccessible work.

Engaging with the concept of rhizomes has challenged me to re-consider my positionality in relation to traditional understandings of academia as bastions of knowledge. I was taught to view academia as a gatekeeper of knowledge, a higher authority on research, and the all-knowing entity on all things educational. An academic, to me, was a person of knowledge authority and higher subject matter expertise. By engaging with the rhizomatic qualities of a/r/tographic inquiry, I am quintessentially disrupting my traditional upbringing regarding perceptions of academic research. I am also starting to understand what it means for an academic to not know, and accordingly, establishing the probability that academics might never really know. Practicing a/r/tographically keeps reminding me of the fragility of academic inquiry because it highlights the tensions that arise from assuming "boundary positions" (Carter, 2014, p. 4), as well as exposes the rigidities of the traditional academic genre confinements (Irwin, 2013). The rhizomatic lens of a/r/tography is slowly but surely demystifying my long-established bastioned views of the academy.

In regard to research openness, there was this plaguing heaviness that lurked over me when I felt compelled to engage with the writings of Deleuze and Guattari. I was philosophically conflicted because: a) I am addressing research accessibility, vulnerability, and openness while consciously citing extremely complex, convoluted, and esoteric pieces of work; b) I am relying

on a philosophical foundation that is critiqued as inaccessible to frame a study aimed at discussing accessibility; and c) I am engaging with texts that are heavily laden with "strange jargon" and "unfamiliar terminology" (O'Sullivan, 2006b, p. 9), in order to write simple and clear texts. To me, it is an apparent oxymoron to involve Deleuzeoguattarian writings in my study. Nonetheless, I give myself solace in the thought that I might be carving a slightly paved entryway to the rugged terrain of the Deleuzeoguattarian world. My attempts to decipher and distil their work might be bridging complexity with simplicity. But, I also acknowledge, that by engaging with their work I might simply be perpetuating an inaccessible academic tradition. I cannot provide a finite account of my current standing regarding the matter, since I know that my position will continue to rhizomatically evolve. Also, my a/r/tographic approach affords a space for situations rather than conclusions (Irwin et al., 2006), and as such, I maintain my uncertainty in dealing with this conundrum.

Critique

Due to the novelty of a/r/tography, there are only a handful of researchers who have engaged with exploring its limitations. Within this limited literature, there are three pertinent themes that surface: a) The impossibility of conducting a/r/tographic research, b) the relevance of personal artform to a wider audience, and c) the dichotomy of a/r/tography in asserting usefulness.

The first critique pivots around the impossibility of conducting a/r/tographic research, due to the intricate and relational a/r/tographic approach that complicates the research process. Some go to the extent of describing a/r/tography as an "impossible undertaking" (Bickel et al., 2011, p. 98). Critics consider the fact that a/r/tographers commit to living inquiry to transform

experiences into artform and text, and in return use those renderings to come about new experiences, an extremely complicated meaning-making process. They doubt the ability of a/r/tographers to master such complicated methodological undertaking (Bickel et al., 2011) and thereafter the meaning-making that is generated from it. Impossibility is definitely in question if a/r/tographers seek perfection, however, critics fail to grasp that a/r/tographers do not seek mastery but rather *messiness* to achieve methodological rigour (Bickel et al., 2011). In essence, the disorderliness of art inspires the non-linear and non-formulaic qualities of a/r/tography (Springgay et al., 2005). These qualities are exactly what I rely on to navigate the complex multidisciplinary literature of museum studies, the intricate relationships of my practitioner-artist-researcher-teacher self, as well as my visual and textual expressions. This way I am able to approach my research with a fresh, non-traditional lens that facilitates provoking and uncovering new understandings of the potential of museums.

The second set of critiques addresses the relevance of a personal artform/practice to a wider audience. This is a theme that keeps surfacing with arts-based methods because of the highly subjective and intimate nature of art making (Barone, 2006a; Barone & Eisner, 2012; Eisner, 1997, 2008). Any arts-based method, a/r/tography included, cannot guarantee that the artform the author/artist considers as pertinent, deep, and highly moving would resonate with the reader/viewer, and accordingly generate the desired widespread conversation (McNiff, 1998; O'Donoghue, 2009; Siegesmund, 2013). Considering that art making is a one-sided and self-absorbed process, critics question its usefulness to others (McNiff, 2012). And, even if it is deemed relevant, there remains the question of how accessible it is to a wider audience (O'Donoghue, 2009). Knowing that art making is metaphoric and non-linear (Knowles & Cole, 2008; McNiff, 2008), the dissemination of concrete meanings could be lost in the artform's

symbolism and complexity. The artist's intentions could be misinterpreted, taken out of context, or utterly misplaced, thus failing to communicate the research findings. The metaphoric could become an "empty signifier" (Jagodzinski & Wallin, 2013, p. 103), which tries to combine everything but achieves nothing. Nonetheless, it is precisely this fragility of art-making that opens new ways to engaging with research. Art is a communication tool that transcends logic and language, because as Paul Klee expressed "art does not reproduce the visible; rather, it makes visible" (Ramanan, 2018). Thus, through combining art with text, a/r/tographers are embracing the possibilities of inviting new perspectives into their work. Artmaking allows a/r/tographic work to be "open and porous" (Springgay et al., 2005, p. 905), which creates a reverberating back and forth between readier/audience and author/artist warranting a multi-way communication that could generate newer meanings.

The third critique of a/r/tography manifests itself in its own dichotomy asserting its usefulness. A/r/tographic approaches are supposed to remain open and fluid to allow for new meanings to emerge, thus setting a goal for the research limits its a/r/tographic potential in unravelling new and unexpected meanings. It is a paradoxical stance where "a/r/tography cannot declare its usefulness" out of likelihood of risking its actual potential usefulness (Siegesmund, 2013, p. 152). As such, engaging in a/r/tography means not knowing the process progression or results, and therefore not being able to predict research contribution or validity. To counter argue, Jan Jagondzinski and Jason Wallin (2013) explained that academia favours "predictability of research" in order to "assure that control is maintained" (p. 25). Thus, academia asserts its power over the genre by setting confines in the form of research usefulness, predictability, assessment, and efficacy. A/r/tography as a method that does not fit within the traditional line-up, defies the conventional by attempting the unconventional. It breaks the linearity of

paradigms, transforming the traditional, dogmatic relationship between theory and practice into a research process that is open and vague (Springgay et al., 2005). This renders a/r/tographic work as eclectic, and "the eclecticism of a/r/tography will remain crucial to the future of arts-based research" specifically, and academia in general (Jagodzinski & Wallin, 2013, p. 103).

Transitions

I use the philosophical construct of metaphor and metonymy to explore a/r/tography as a method in relation to my work. The symbolic qualities of metaphor and metonymy shed light on the in-betweens and render them open to interpretation. This metaphoric and metonymic openness denotes fragility that enables a "loss of meaning, a realization of meaning, or neither" (Irwin & Springgay, 2008). The symbolic qualities of the forward slash "/" afford role métissage, which is the mixing, combining, and meeting of the hyphenated (Carter, 2013; Chambers et al., 2008; Irwin, 2004). In exploring the mixtus of my multiple existences, I highlight my artist, researcher, and teacher situatedness in and with my research.

Metaphor and metonymy also frame the relationality of *art* and *graph*, where the visual and textual "complement, extend, refute, and/or subvert one another" (Springgay et al., 2005, p. 900). In a/r/tography, art and word come together to provide a wider lens for research, allowing for new ways of practicing and fresh means of understanding. Through harnessing the powers of metaphor and metonymy, I am embracing the potential of meaning-making and un-making throughout the course of this inquiry. For only through accepting the possibility of loss of meaning can I unearth new meanings. Some critics describe the aforementioned process of a/r/tographic making as an "impossible undertaking" (Bickel et al., 2011, p. 98), yet precisely this taint of impossibility is what holds my research possibilities.

As such, in the next exploration, I employ the rendering of contiguity to contextualize the subject/object relationality in my research. A/r/tographic contiguity, like metaphor and metonymy, helps frame the notion of the forward slash "/", the spaces in-between the artist, researcher, and teacher identities (Irwin & Springgay, 2008). It allows for "the spaces *in between* the roles and the *activity* inherent in practicing these roles" to surface and become more visible (Springgay et al., 2005, p. 900). I intend on focusing on the in-betweens of the hyphenated space in order to carve a dedicated space for my practitioner self in this study. By further exploring my role métissage from a museum practitioner lens, I attempt to highlight my positionality in and with museums. Moreover, contiguity stands for the liminality of the personal to the global because a/r/tographic inquiry stems from the relationality of the self to the world. So, through this contiguous constellation of self/world, emergent personal revelations should inherently lead to new global discoveries about museum contiguity (Sinner et al., 2006).

Pause: Contiguity

Colourful

Blended

Individual

Collective

Figure 3.5. Pause: Contiguity (Medium: Photography)

EXPLORATION 4

Contiguity: Contextual Framework

State of Bordering

Contiguity is the state of bordering or being in contact with something. It originates from the Latin word *contiguus*, which means "touching" (*Oxford English Dictionary*, 2012, p. 150). In a/r/tography, contiguity is a rendering that helps frame the notions of adjacency and concurrency of ideas (Irwin & Springgay, 2008). Contiguity carves the space for acknowledging ideas that exist in the in-betweens of adjacency and concurrency despite their categorical differences. It is a space that creates a point of intersectionality for concepts that are usually conceived as parallel. Contiguity disrupts the conventional by recognizing the liminal and highlighting the in-betweens. A/r/tographic contiguity frames the spaces in-between the forward slash "/" of the artist, researcher, and teacher existences (Irwin & Springgay, 2008). These three roles exist concurrently, adjacently, and more often than not intersect, allowing for "the spaces *in between* the roles and the *activity* inherent in practicing these roles" to surface and become more visible (Springgay et al., 2005, p. 900). Contiguity is also the liminality of the personal to the global, the subjective to the collective, and the individual to the universal (Sinner et al., 2006). Within the understandings of a/r/tographic contiguity, all research primarily stems from a personal curiosity and eventually creates global resonance (Irwin et al., 2006).

In this exploration, the theoretical premise of a/r/tographic contiguity guides me through a journey of subjective discovery to further enhance my understanding of my museological positionality within this study, the relationality of museums to my personal existence, as well as the relationality of museums to public existences. Contiguity also attends to the journey of collective discovery by allowing my personal inquiry to instigate global considerations in museum contiguity. First, I employ contiguity to bring in my liminal existence in relation to museums to the forefront. In this research, my positionality is highly affected by my métier as a

museum practitioner. I elaborate on my relationship with/to museums in an attempt to: a) personally, better understand where I am coming from; and b) generally, allow the reader to gain better insight into my situatedness. As Morwenna Griffiths (2010) explained, "all research is affected by the selves (relationships, circumstances, perspectives and reactions) of the researcher, [and] making these as clear as possible to the audience is one way of exercising academic virtue" (p. 172). I understand "academic virtue" not in terms of righteousness but rather as an 'advantage' or an 'asset' to the inquiry process, since it allows the reader to identify and understand how my questions, explorations, and understandings are formed. Therefore, highlighting my artist/researcher/teacher selves is an attempt for transparency without any insinuation of neutrality. Second, I embrace the nature of contiguity to move beyond personal liminality and explore pertinent themes of global contiguity in the museum existence. This conversation is of direct consequence to engaging in a highly personal aspect of a/r/tographic living inquiry. It is crucial to establish this interrelatedness early on to validate my extensive engagement with personal aspects of this study: For only through an in depth personal inquiry process could I eventually contribute to the larger discourse (Irwin et al., 2006). Within the theme of contiguity, I take advantage of my personal exploration to jumpstart global discussion into the contiguity of the subject matter, i.e. the museum, in relation to our everydayness.

By delving into my personal situatedness in relation to museums, museological contiguity in relation to the daily, and manifestations of contiguous museological existences past and present, I attempt to further explore my guiding question: What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences?

From On-look to Out-look

In exploring the meaning of contiguity in my research, I think rhizomatically about the evolution of the bordering presence of museums in my life; I explore how the museum manifests itself as part my being and how I constitute part of the museum. By understanding this relationship, I will be able to better define my positionality in this research in order to achieve a more transparent stance in relation to my subjectivity as well as the reader/audience. In an attempt to understand the contiguous presence of museums as part of my life, I take a closer look at my earlier positionality as a museum visitor in contrast to my later situatedness as a museum practitioner. I also elaborate on the evolution of my practice within the museum field in order to shed light on my personal journey of museological change.

Coming to Museums

I owe my first encounters with museums to my mother and grandparents who were very keen on giving me and my sister a worldly cultural experience that they did not get the chance to experience themselves. My grandfather was a self-made entrepreneur who did not go to college and my grandmother did not even finish school. However, they made sure that their children got the best education out of strong belief that it would secure their futures. My mother was the first female in the family to attend university; she pursued a career in medicine and was accordingly continuously studying and working. This meant that I got to spend a large portion of my childhood with my grandparents, who offered my sister and me the life they did not have as children. They constantly encouraged us to engage with the arts and took us on cultural trips to destinations both in and outside of Egypt. I was very fortunate because they were culture-vultures before it was even in fashion, and they had the financial means to offer us respective

exceptional experiences. I was even more blessed because my mother would go on medical training exchange programs every few years in Europe. This meant that my sister and I would get to spend our summers discovering new places and getting to know new cultures. My grandparents would usually come and stay with us for a couple of weeks, and we would explore museums and galleries. It was a wonderful and privileged childhood, and I owe it all to the progressive and generous nature of my grandparents and the open-mindedness of my mother.

As far as I remember, my first recollection of falling in love with museums was during a family visit to the Louvre in Paris. I was very young, I cannot remember exactly how old I was, but I remember the experience as if it was a dream. I recall my overall feelings and impressions more than the specific details of the encounter. I know that I felt so small in the space because everything was so big and vast. The ceilings were very high, the rooms big, the corridors long, the staircases majestic, and the windows were enormous and bright. I was overwhelmed with the size of the museum and the amount of art hanging on the walls. I am getting goose bumps as I am writing this, but it was a life-altering encounter. I clearly remember that I was in complete awe of the sight of people looking in adoration at the displays. There were so many people in the museum, yet it also felt as if I was completely alone in the space. I can still sense the smell of old artifacts, the abundance of light and lack thereof at points, as well as the sheer grandeur of everything that surrounded me. It was an exciting, joyful, overwhelming, and utterly magnificent experience. As a child, I already had a general inclination towards the arts, but ever since that day I got hooked on museums. I was the child that would get excited whenever the family planned a museum visit, while my sister would stomp and cry that we were going on a boring outing.

As the years passed, I knew I wanted to work with art or artifacts, in a gallery or a museum. I wanted to be working in a place that gave me that same overwhelming feeling I experienced in the Louvre. So, I decided that I wanted to study art and become an art historian or gallerist. However, my decision did not sit well with a family that values the arts as a hobby rather than a profession. Accordingly, I had to go through great lengths to be able to pursue my dream. After months of arguments, crying, and begging, I failed to convince my mother that studying art was the right choice. I then ended up applying to study for an undergraduate degree in international law and minoring in anthropology. A couple of years into my studies, the university opened up a pilot for an arts major programme. I was very fortunate because the university allowed students to switch to the art programme without losing their accumulated credit. Thus, in defiance to a longstanding family tradition of studying medicine, engineering, or economics, I switched majors and pursued an undergraduate degree in studio art and art history. My mother was not very happy, but she respected my choice because I was consistent in following my passion. In 2001, I completed my undergraduate degree in studio art and art history; in 2003, I complemented it with a graduate certificate in exhibition studies; then in 2006, I completed a master's degree in museum studies. Now, it has been sixteen years (and counting) of working in the museum domain.

My journey of coming to museums started off from a position of privilege yet ended up in a process of challenge. The very woman who afforded me a chance to fall in love with museums was the one obstacle between me and my coming to museums. The antagonization and polarization of our arguments lead to her asserting her power over my decision, and I ended up losing my first round. Luckily, when the stars aligned to present me with a once in a lifetime opportunity, I was already cognizant that confrontation would lead me nowhere. Therefore, I

avoided engaging in the tensions of our disagreements and opted to focus on slowly changing her stance through highlighting the potential of loving what I do and doing what I love. So, here I am transferring my personal experience to my research, and positioning myself in the "post-museum" approach that sidelines the tensions of power relations and focuses on positive moments in the museum history (Hooper-Greenhill, 2000, p. 152).

Being in Museums

Ironically, the museum that captivated my mind and soul and got me interested in pursuing an artful and museological career is a museum that is accused of "cultural vandalism" through the "hoarding of treasures" (Witcomb, 2003, p. 8). Based on this shocking and disturbing revelation, I attempt to understand my shifting perceptions of the museum's contiguous presence in relation to myself as an on-looker, in-looker, and out-looker. The on-looker lens is that of an outsider looking at the museum from a visitor/spectator stance. Within the considerations of my earlier on-looker lens, I regarded museums as majestic spaces that were mysterious, capacious, and more often than not intimidating. I admired the uniqueness of the collections, the treasure-like qualities of the objects, and ancient feel that accompanied the experience. I was also completely intrigued by the idea that museum professionals had the chance to handle the objects that the visitors were not allowed to touch. As an on-looker, I considered museologists as guardians of world treasures because they held the keys to the treasure trove and kept the objects safe. I was always curious about the behind the scenes happenings, where museologists decided what goes where and how objects are cleaned (the latter really concerned me as a child). It was never clear to me what museologists did, so I ended up mystifying the profession by attributing wise sage-like qualities to museum practitioners. In

retrospect, I might have also been envious of people working in museums.

Once I joined the museum establishment I started developing my in-looker lens, which is represented by my insider positionality as a museum practitioner. As an in-looker, I am more cognizant of the ins of the museum establishment and the museological practice. By looking-in I have developed a more profound and informed understanding of what it means to be part of the museum world. Accordingly, looking-in is an introspective position that is consciously critical of the establishment and purposely examines and questions the ins of the practice. After existing in and with museums, my relationship has shifted from an outsider/on-looker to an insider/in-looker, and with that came the burden of demystification.

I no longer view museums through the early onset on-looker's lens that glorifies the museum; instead, I now see them through a critical lens that acknowledges the troubling existence of the museum as "a product of colonialism" (Bal, 1992, p. 558). As such, the museum bears the burdens of an oppressive, racist, sexist, and discriminating imperialistic conception (Bennett, 1995; Luke, 2002). Colonialists developed a "taste for collecting" to keep mementos of the exotic and to showcase their conquests of the foreign (Renfrew, 2000, p. 52). "Such collections were formed in a manner which would be entirely unacceptable today" (Renfrew, 2000, p. 78), because they were acquisitioned through means of looting, illegal excavation, bribery, forcible removal, or some combination thereof. The creation of the world's most prominent museum collections is tainted with the unethicality of collecting.

This imperialistic power hegemony is also echoed in the early curatorial practices of the museum, where curators considered themselves the "primary guardians" of collections and the owners of all knowledge associated with them (Skeates, 2000, p. 20). Museums considered

visitors passive learners that required the curator's regulation of knowledge in order to be able to grasp the object's significance (Falk, 2004). Museums assumed the role of the all-knowing entity that could stimulate desired learning responses from the audience by presenting them with the right set of objects and information. In juxtaposing the guardianship quality of museum practitioners from an on-looker lens versus an in-looker lens, I find that the former denotes selflessness and consideration whereas the latter exhibits arrogance and hierarchy. The in-looker lens unquestionably deflated the assumed museum allure and grandeur I perceived as an on-looker. This is reflected in my previous research endeavours, which mainly centred around museum laws, ethics, repatriation, and oppressive representations. I was highly concerned with unpacking the past in order to understand the present and grasp the implications of the then on the now.

After dwelling in the in-looker positionality for a large portion of my early museum career, I started developing an out-looker lens, which represents my museum practitioner self who believes in the potential of museums despite their encumbering pasts. An out-looking lens is a stance that is looking out for change and trying to harness the powers of current and previous efforts for relevance. It is a lens that acknowledges the museum's shortcomings while still believing in its potential. Through the out-looker lens, I am cognizant of the fact that most of the museums I admired as a child have a contentious history of collecting, a negligent approach to repatriation, and more often than not, still perpetuate colonialist and discriminatory approaches to display (Renfrew, 2000). I recognize that there are many thorny issues related to the conception of the museum and their current existence as power structures (Barringer & Flynn, 1998; Bennett, 1995, 2018; Simpson, 1997), yet there is an optimistic outlook that emerges from the massive efforts aiming at surpassing the negativity of the past. Nevertheless, I constantly

remind myself of the duality of the museum's being to keep myself in check. I sometimes go as far as questioning the ethicality of participating in a profession that has been founded on such contentious grounds. However, I often find solace in the potential of change and the value of ethically evolving to overcome the tensions that still plague the museum existence (Anderson, 2012b; Marstine, 2011; Miles & Zavala, 1994). Museums have been working on shedding the weight of their pasts and actively seeking to become more relevant establishments (Bennett, 1995; Sandell, 2002; Silverman, 2002). This practice-based out-look stance is reflected in my "post-museum" research stance (Hooper-Greenhill, 2000, p. 152), which acknowledges the ways in which museums try to overcome their pasts by capitalizing on the positive prospects of their futures. The promise of change is the reason why I am still working in museums.

Reflecting on my positionality in and with museums highlights the multiplicity of my stances and the ways in which they interact and intersect. This my first reflexive undertaking of the sorts, and it is only because I am practicing a/r/tographically that I was encouraged to engage with such an introspective yet exposing exercise. I have never been able to pinpoint the changes that I undertook as a museum practitioner, or even consider my situatedness in and with museums. I now recognize the similarities of my own stances in relation to museums: coming from ignorance and moving towards a more informed stance, evolving from naivety to criticality, then eventually harnessing criticality to make amends and move forward. It is also important to note that after reaching an out-look stance, I have been able identify that I occasionally enjoy an on-looker stance when visiting museums with which I am not professionally associated. Through embracing an out-looking stance, I have regained some of the magic that disappeared through engaging with the in-looking lens. In essence, this positive outlook has made my leisurely museum-going more gratifying.

Still captivating

This picture was taken during a 2010 visit to the Louvre. I am here in front of one of my favourite art series from the sixteenth century, Giuseppe Arcimboldo's Four Seasons. This series never fails to mesmerize me every time I look at it. The creativity and art mastery are exquisite and captivating. It is simple fulfilling moments like these that make museums matter.

Figure 4.1. The fascination continues, Louvre 2010 (Paris, France)

From Personal to Global Contiguity

By exploring the storyline of my personal positionality in and with museums, I started thinking about the contiguity of storylines in relation to museums. Understanding the shifting tides of my situatedness is a direct result of reflecting on the museum's story in the past, present, and future. Stories are not only represented in the storyline of the museum evolution but are also fundamentally embodied in the museum's existence. Museums are storytellers through means of creating interpretive settings that frame the narratives surrounding objects (Bedford, 2001). Stories contextualize collections within the museum and help visitors engage with material interpretations. Storytelling in museums has evolved from prescribed top-down narratives dictated by the curators toward thematic arrangements that mediate individual meaning-making and personal relationality (Hooper-Greenhill, 1999). Nonetheless, the only constant in this storyline is the significance of the museum's "ability to bring together time and space" through storytelling (Tzortzi, 2015, p. 75). Accordingly, if time and space are principal concepts that govern museum curation, then they are constantly contiguous to the museum experience. Hence, it becomes imperative to further investigate the manifestations of spatial and temporal contiguity in and with museums in order to gain further insight into museological learning and experiences, and thereafter prompt new understandings of the potential of museums.

When thinking about the contiguity of time to museums, I started realizing that many museum aspects are governed by temporality. I became curious to understand how the concept of contiguity manifests itself in relation to time in and with museums: Conceptually, how does time manifest itself in the ways that museums border our past, present, and future? How do visitors relate to time in museums? How does time shape the museum experience? Once I started thinking about temporal contiguity, I organically began considering spatial contiguity. In a

domino effect, I got curious about understanding museums as contiguous to us in terms of space: How do they border our living premises? What is a museum space? How are they arranged? I approach these questions from my post-museum stance, where I engage with spatial and temporal manifestations of contiguity in museums through a lens that highlights their constructive attributes in order to capitalize on newfound meanings to further understand museological experiences. However, I also make a point to approach my exploration from an in-looker lens in an attempt to demonstrate the gap between the museum's reality and potential.

As evident from the aforementioned plethora of questions, investigating the rendering of contiguity through a subjective lens reverberates in the wider discussion beyond the self. Although I philosophically grasp the link between personal and global, this is my first direct experience observing it unfold the way it does in this exploration. Delving into this highly individual and personal exploration is inspiring me to engage in bigger conversations beyond my subjective realm. Anita Sinner, Carl Leggo, Rita Irwin, Peter Gouzouasis, and Kit Grauer (2006) emphasized the contribution of personal and individual inquiry processes to larger discourses, and this exploration is a manifestation of the rhizomatic interconnectedness of personal research aspects to the bigger picture. So, in acknowledging the contiguity of subjectivity to collectivity, I embark on an exploration of the temporal and spatial existence of museums through the lens of a/r/tographic contiguity. I do so in hope of discovering new meanings to how we relate to the museum experience. And, in effect partly respond to my guiding question: What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences?

Museums and Time

Museums are contiguous to time in the sense that they serve as connecters of our past, present, and future. Museums have the capacity to transport visitors to bygone eras, present the opportunity to experience the contemporary, and allow for imagining the future. “Since the original experiences of the past are irretrievable, we can only grasp them through their remains” (Hoelscher, 2006, p. 203). The museum establishment is considered the safe-keeper of those remains, and in doing so it “acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment” (International Council of Museums, 2007, art. 3, sec. 1). Conceptually, when museums display remains of the past, they enable us to define where we come from and in return identify the possibilities of where we are going. The ability to connect to our past through museum collections helps develop a sense of identity because it allows us to “construct images” of ourselves and others (Macdonald, 2005, p. 287). Museum collections offer a tangible reality to the abstract concept of the past: we do not only hear about what might have happened, we actually see physical evidence of what has been. In essence, museum collections harness “the representational and symbolic value of heritage in constructing and giving material reality to identity” (Smith, 2006, p. 48).

Also, the act of collecting itself is temporal contiguity because of its ability to “express the past in the present” (McLeod, 2004, p. 456). Museum acquisitions allow for the liminal existence of the then and now. Nonetheless, not all museums are collection-based: For example, children’s museums are experience-centric establishments that offer thematic hands-on experiences to engage the visitors. Non-collection-based museums still manage to achieve temporal contiguity of past, present, and future through the suggestive qualities of immersive museum exhibits (Black, 2005). They offer simulated environments that help deliver a tangible

reality to the abstract concept of the past, the out of reach of the present, and the probable of the future by relying on the materiality of replications and the powers of pretending.

Temporal contiguity also manifests itself in the ways museums arrange their collections: a) curatorial linearity (or non-linearity) to tell a story, and b) textual signage to communicate a storyline or orientation. The concept of temporal linearity in curation plays a large role in traditional museum settings (Hooper-Greenhill, 1994). Curatorial linearity indicates an arrangement that sequences a specific order to the visit; it dictates the visitor interaction path with the museum displays. The museum visit is mapped out and temporally planned. Rigid curatorial linearity, as present in most traditional museums, does not give agency to the visitor to decide on their route choices. Instead, it considers the visitor a passive receiver (Hooper-Greenhill, 1994), who has to be guided through a specific route or else the museum message will get lost on them. In contrast, curatorial non-linearity acknowledges the visitor agency and allows for multiple entryways into an exhibit (Hein, 1998). Although difficult in chronological exhibits, non-linear curation can easily be adopted in thematic display arrangements. The concept of non-linearity is based on the constructivist premise that considers the visitor an active learner in charge of their own meaning-making (Falk & Dierking, 2013; Hein, 1999). It is a modern concept that challenges power relations that accompany linear exhibit development.

Temporal contiguity is similarly present in the word-based nature of the museum's text-aided signage. Traditionally, museums only used the object label as the main medium of knowledge dissemination (Belcher, 1991). Object labels are the small text excerpts directly attached to the object to communicate information about it. Nowadays, museums resort to an array of signage and visuals to aid the audience during their visit. These range from title signs

that ascribe a theme to a room, to introductory panels that indicate the context of items on display within a specific space, to group labels that describe multiple objects within the same chronological or thematic grouping, to the traditional object label, and all the way to the label ID that provides a short description of the object, material, date, and any other significant information (Dean, 1994; B. Serrell, 1996). Museum signage is laden with text that helps guide the visitor or explain an object. The choice of language and text in signage helps facilitate chronological dating of displays as well as support curatorial choices in exhibit design (Ravelli, 2006). The right tense and verbal conjugation create chronological situatedness that assists the visitor in creating sequential relationality. Temporality in museum texts is an essential medium for the museum to convey messages and a fundamental tool for the visitor to make sense of the communicated messages.

Time is also a large factor in how we experience a museum. Our perception of time indicates our level of engagement with the museum. If time flies by, then the visitors are presumably enjoying themselves. However, if the museum visit is perceived as never-ending, then it is arguably a boring experience that makes time feel like it is dragging. Also, the timing of the visit affects the nature of the experience. One could visit the same museum at two singular times within two different contexts rendering two completely distinct experiences. A student experiencing the museum on a school visit will vary drastically from a visit with their family and friends. Here, not only timing but also the nature of time spent shapes the museum experience: A leisurely visit varies from a scholastic visit. Another aspect of temporal contiguity is time affordability, where the visit's duration and frequency dictate the nature of the museum visit. For one, tourists are usually in town for a short amount of time, operating on a tight schedule. This type of museum visitor tends to "systematically work their way through the museum" to

experience as much as they can within a limited amount of time (Bicknell & Mann, 1993, p. 146). The fact that tourists know that they might not visit the same museum ever again makes it a once in a lifetime experience. It becomes a race against the clock, a matter of all or nothing. In contrast, locals know that the museum is right there in their city or even neighbourhood. The possibility of frequenting a museum alleviates the stress of 'it's now or never'. Accordingly, locals have the luxury of visiting museums incrementally during their spare time. They can take their time knowing they could always come back if they miss something. Here, temporal contiguity is closely shaped by spatial contiguity because distance and proximity contribute to time affordability.

In exploring temporal contiguity traces of relationality to spatial liminality start to emerge. Considering museums as connectors of time in light of their object acquisitions befalls the inevitability to understand the relationality of collections to the spaces that house them. Also, thinking about temporal considerations in display and curation opens a space to reflect on the interrelatedness of chronological exhibits and their spatial arrangements. Likewise, using text in museums to frame objects in relation to time, begets the inexorability of exploring how the same text serves to situate an object in relation to space. Thus, delving into temporal contiguity reverberates into an exploration of spatial contiguity to further understand museum relationality within a broader context.

Moment of Reflexivity

When conducting research about temporal contiguity, I came across an article by Susan Crane (2006), where she hints to the "irony" of the museum's existence in light of "the fact that preservation is the antithesis of progress" (p. 99). At first, I was completely persuaded by her

argument: Change occurs through time, and by conserving an object it becomes frozen in time and denied any change. But after re-reading her arguments a few times and going through my conservation readings, I discovered that her claim is somewhat flawed. While preservation alludes to freezing an object in time yet leaving an object to the elements does not necessarily mean that the state of the object is progressing. An object could break, decay, shatter, splinter, discolour, fade, dissolve, burn, tear, crack, oxidize, crystalize, rust, etc., all of which are indicative of a transformation in the state of the object. However, is this transformation considered progress? As Crane claimed, the natural course of an unpreserved object is change, but change is not necessarily equivalent to progress. She uses the words 'change' and 'progress' interchangeably in an attempt to equate them, though they are fundamentally different. Progress indicates development and advancement, while change means an alteration or modification (*Oxford English Dictionary*, 2012). Progress carries positive connotations, whereas change could denote positivity or negativity. Thus, by stating that change is progress, Crane is denying the word change one of its main attributes, which is the ability to afford negativity. In that respect, I find no irony in museums attempting institutional change while maintaining a mandate of object conservation.

This links back to my core attempt to uncover new understandings of the potential of museums through exploring new possibilities for change, which carry the qualities of modification without the burden of perfection. Attempts at change in museums do not necessarily have to achieve progress despite intentions to attempt progress. Exploring the potential of change in museums allows for missteps and misunderstandings of what change entails and how it could manifest itself. This directly complements the ever-changing nature of the human existence, which develops knowledge without ever achieving absolute knowledge.

What we think is right today might become wrong tomorrow, and accordingly, what the museum attempts as change today could be challenged tomorrow. Therefore, the mutable existence of museums continually seeks progress by affording change.

Museum Space

Museums are physically contiguous to our living spaces: they border our cities, neighbourhoods, and sometimes even our very own street. They are establishments that have developed into cultural icons of the urban landscape (Heumann Gurian, 2006). Metropolitan cities, like Montreal, usually offer a multitude of museum establishments to showcase their cultural gravitas and commitment to the arts and heritage (Giebelhausen, 2003). To create some visual clarity of the clustering of museums in Montreal: 1. Open Google Maps, 2. Drop a pin in downtown Montreal, and 3. Search for nearby museums. My search yielded fifteen museums within a 2.7-kilometre radius of my dropped pin (see figure 4.2). This showcases the prominence of museum contiguity in the montréalais cityscape as well as the multitude of museological offerings to the people and visitors of Montreal. Mathematically speaking, within the 2.7-kilometre radius of the city centre of Montreal, there is on average a museum every 180 meters. In a sheer a/r/tographic sense, the museum's bordering existence to our urban montréalais landscape is evident and our intersectionality is inevitable. We walk next to museums by foot, drive by them in cars or buses, ride by them on bikes, ride under them in the metro, and occasionally fly over them in planes or helicopters. The volume of these repeated liminal encounters are constant reminders of the museum's existence in our lives. Whether these unintentional liminal crossings translate into intentional meeting points is something to be discovered. It remains open whether quantitative liminality can lead to qualitative intersectionality.

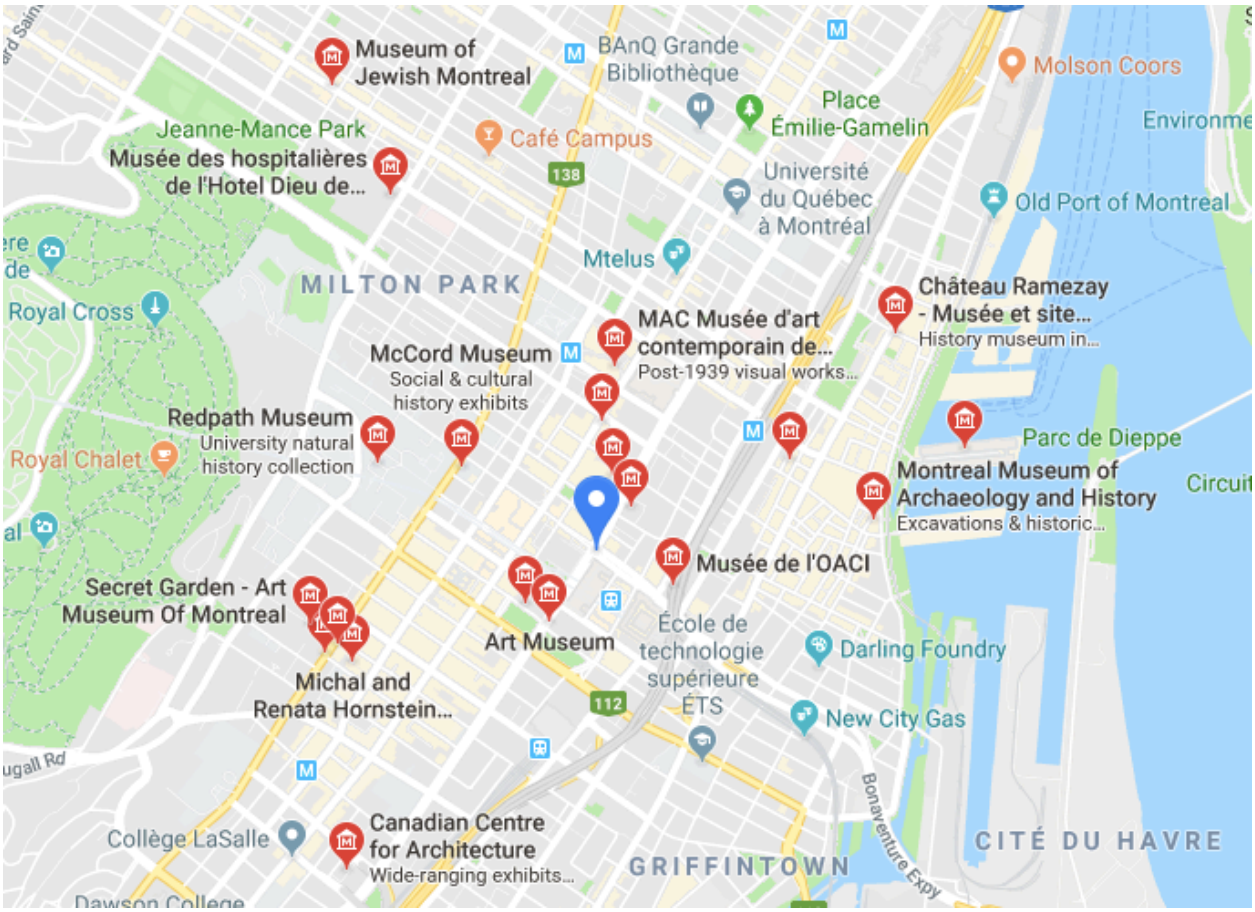


Figure 4.2. Mapping museums in downtown Montreal (Google Maps, 2018)

Museums are also virtually contiguous to our everyday life through their online presence. Through existing in the virtual space, museums transcend physical distance and create proximal liminality. One no longer needs to be in a specific city to border a particular museum. Physical distance plays no role in virtual encounters because a museum's virtual space is always a click away. This liminal online presence decreases access barriers and "extend[s] the reach of even the smallest [or most remote] museum" (Ambrose & Paine, 2012, p. 104). Virtual spatial contiguity exponentially increases the potential of intersectionality due to the state of our constant bordering with the online world. Virtual contiguity also offers intrinsic qualities of effortlessness and comfort because the agency of using online resources affords a sense of familiarity that

physical spaces might not be able to provide (Bautista, 2014). Virtually experiencing a museum from the comforts of a familiar physical space re-contextualizes the concept of museum fatigue, which is closely related to the effects of the museum's architecture on visitor exhaustion and saturation (Falk & Dierking, 1992). Here, from a museum perspective, museum fatigue is influenced by the quality of screen interactivity, the content, as well as the visual representation of curated experience. The spatial aspect of museum fatigue is no longer controlled by the museum but rather influenced by the architectural features of the virtual visitor's physical location. Virtual contiguity creates a space where the regulation of experience factors (see EFM) are re-distributed between the visitor and the museum.

Spatial contiguity is not only about our liminal existence in relation to the museum, but it is also about spatial contiguity as manifested by and within a museum space. In order to address that, I first offer a quick overview of the evolutionary understanding of the term 'museum space'. In traditional terminologies, the museum space is a building housing and displaying collections, whether as a repurposed or purpose-built structure (Giebelhausen, 2006). A repurposed structure is a building that was not built with the intention of being a museum yet later reconfigured to serve as a museum. Spatial contiguity as manifested in a re-purposed museum, showcases how a building could live in the liminal of our everydayness as a non-museum yet later become a museum. The Musée d'Orsay is a famous example of a repurposed structure: it used to be the Gare d'Orsay, a Paris railway station built for the Universal Exhibition of 1900 ("A museum in a station," 2018). The public moved from perceiving it as a bustling space for physical travel across the land toward recognizing it as a calm space that houses artwork. This strong shift in purpose signals the potential that lies in non-museum spaces hosting museological experiences. However, the question remains whether a space can afford maintaining its original function

while becoming museological. The problem lies in the traditional understandings of museum display, where these structures superimpose their “architectural contradictions” and layout inconsistencies on the exhibit design (Miller, 2018, p. 211), which sometimes limits curatorial decisions and compromises the safety of collections.

Figure 4.3. Gare d’Orsay (“A museum in a station,” 2018)

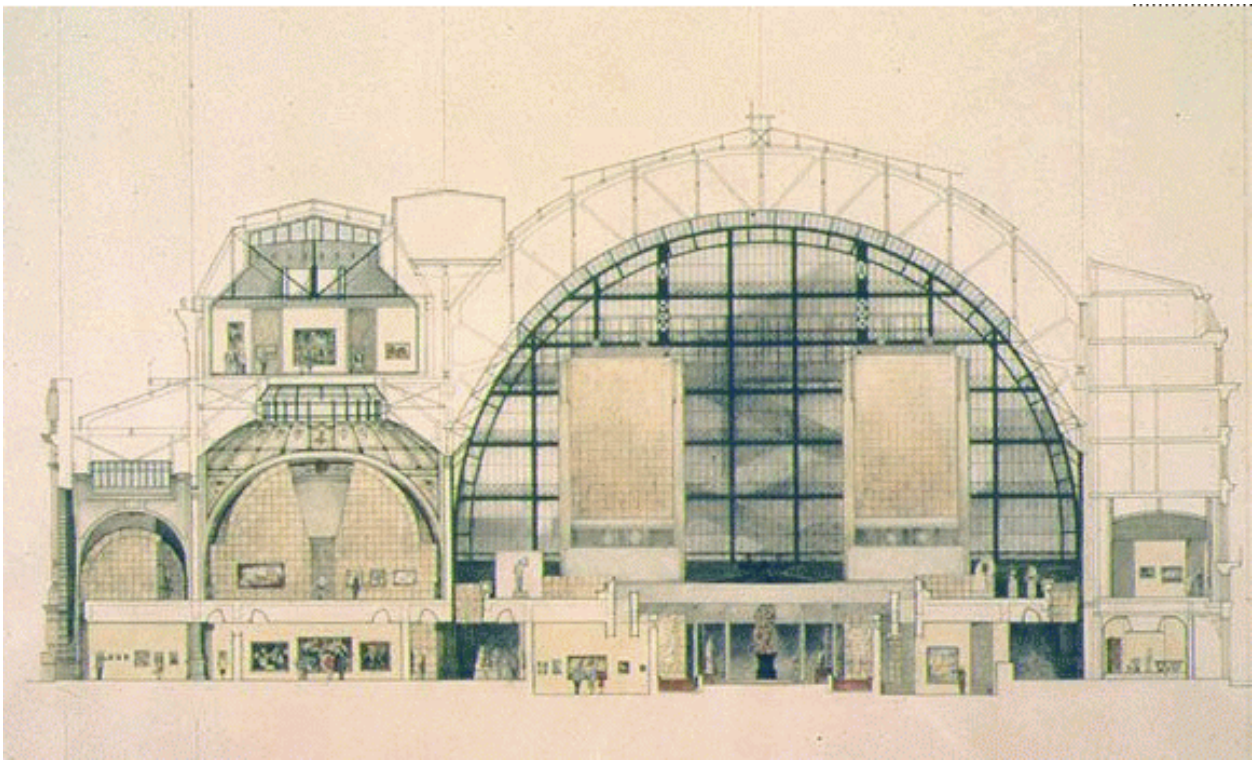


Figure 4.4. Gae Aulenti's museum concept ("A museum in a station," 2018)

In contrast, a purpose-built museum is a structure that was intentionally designed to exhibit a specific collection or mirror a particular curatorial vision. Spatial contiguity is manifested in the architecture of the space as well as the display arrangements of the collections. The first known example of a purpose-built museum structure is the Egyptian Museum in Cairo, which opened its doors to visitors in 1902 ("Egyptian Museum turns 115," 2017). As evident from the layout of the Egyptian Museum, the space was designed to primarily house objects. The liminal existence of the museum was meant to be majestic and superimposing in order to portray the value of the Ancient Egyptian artifacts on display. Moreover, the interior of the space was fashioned in the spirit of grand European structures that were repurposed into museums. This meant high ceilings, elaborate staircases that end with balconies, and wall ornamentations that give a palace-like feel to the space. It also meant that the layout was intended to house and

showcase objects, rather than accommodate visitors. This is the case because object-centric displays focus on curating in a way that allows the objects to shine (Pearce, 1994b), rather than consider how the audience will interact with the display. Nowadays, purpose-built museums attempt to move away from object-centric displays toward more visitor-centric approaches. As such, newer purpose built museum are usually a result of a collaborative effort between architects, curators, designers, collection managers, and content developers (MacLeod, Hanks, & Hale, 2012), and more recently also involve community members (Golding & Modest, 2013).

Figure 4.5. The interior of the Egyptian Museum ("Egyptian Museum turns 115," 2017)

Newer understandings of museum space move beyond the traditional structure-based definition toward a progressive description, which classifies it as "an environment created through a complex of practices and systems of knowledge" (Macleod, 2005, p. 1). The idea of the museum space as an environment defined by its offerings renders the museum establishment more flexible, open, and fluid. A museum space can thus be a non-structure-based space, i.e. an open field, offering museological content. The same fluidity in classification affords the acknowledgment of the museological online presence as a museum space. This newer view of museum space is allowing museums to re-define museum experiences in relation to this "new type of site-specific museum" existence (MacLeod, 2005, p. 11), where the concern becomes more focused on the site use rather than the site production. Accordingly, a museum can exist in any space as long as the site can accommodate museological use. This means that museum spaces, whether physical or virtual, are constantly contiguous to other spaces that border our lives.

Beyond existing contiguously as spaces, museums equally create spatial contiguity through means of being spaces that bring the world closer. This liminal proximity comes to existence through the initial museum manifesto, which was based on the principles of collecting the world (Pearce, 1992). In that respect, by collecting the world, museums display the world. On a macro level, a museum that holds objects representing different parts of the world is metaphorically creating spatial contiguity between source site and display location. It connects an object's original situatedness with the museum's simulated contextualization in an attempt for authentic relationality (Edson & Dean, 1994; Phillips, 1997). It also allows for the visitor to experience a distant location within a proximate space, which bridges the separating qualities of physical distance. On a micro level, any collection-based museum is physically arranged to

produce spatial closeness between the object and the audience (Ambrose & Paine, 2006). This display arrangement is meant to give the visitor an encounter with the authentic. The sense of closeness with the rare captures the visitor and satisfies their appetite for the "real thing" (Lord, 2001, p. 16). In juxtaposition, non-collection-based museums cannot create this closeness through objects because they have no collections. Instead, these museums create contiguity to ideas, places, and concepts through embracing immersion and transference display techniques (Caulton, 1998). Through careful curation and design, they manage to bring physical and ethereal worlds closer to the museum audience. Non-collection-based museums harness curatorial powers to provide a glance into realms to which the visitor would otherwise have no access. They achieve pseudo-authentic material contiguity through employing immaterial concept contiguity as well as material replicability.

Whether collection or non-collection-based, on a micro level, museum arrangements as well as textual choices contribute to creating a sense of spatial contiguity. To complement temporal contiguity, text in museums augments the visitor's museum experience in relation to space: Directional panels and maps facilitate navigation, title signs help thematic orientation, introductory panels provide context to items on display within a specific space, group labels assist in recognizing thematic groupings, and object labels give information about objects on display (Dean, 1994; B. Serrell, 1996). Museums rely highly on text to orient visitors through the nooks and crevasses of the space, as well as guide them through the abundance of information on display. Text helps create a sense of spatial familiarity and understanding, especially when properly verbalized (Coxall, 1994; Hooper-Greenhill, 1990). Museum text also situates and contextualizes an exhibit through an array of narrative and didactic accounts. Likewise, text situates an object within the larger collection, as well as frames it thematically, contextually, and

informatively. On all levels, museum text is usually carefully crafted in terms of syntax, grammar, vocabulary, and conjugation to increase a visitor's sense of closeness with the object, exhibit, and overall museum space. Textual manifestations in museums have to be temporally accurate to achieve the right sense of spatial contiguity.

When exploring spatial contiguity traces of temporal contiguity continue to reverberate in the undercurrents of the museum existence. Despite separately attending to the contiguity of museums to time and space, emergent understandings exhibit strong liminality between temporality and spatiality. While exploring temporal contiguity, themes of spatiality surfaced; and when examining spatial contiguity, premises of temporality emerged. Effectively, I unintentionally uncovered several occurrences of temporal and spatial intersectionality. These meeting points reveal that understanding space is supported by the context of time, and the concept of time is materialized within the construct of space. This results in recognizing museums as contiguous to time and space, as well as realizing that time and space are contiguous to each other.

Contentious Contiguity

As evident from the exploration of spatial and temporal contiguity in and with museums, there is great promise to harnessing their liminal clout to make museums more relevant. However, the burden of the past is so heavy that museums are still trying to overcome the contentious manifestations of temporality and spatiality within their spaces. In the following account, I approach contiguity from my in-looker lens in order to afford my research more criticality and substantiate the gap between the museum's reality and potential. This is to warrant the reader/audience more insight into the relationality of past happenings to current proposals for

change in museums. I specifically focus on remnants of contentious contiguity in relation to the museum's efforts for relevance.

After decades of extensive efforts to make museums relevant, "more people go to museums than ever before" (Marstine, 2006, p. 3). However, despite the overall surge in attendance numbers, museums are still striving to appeal to the people who cannot afford or do not exhibit interest in attending the museum. For example, within the Canadian context, specifically the province of Quebec, school attendance to museums fell 15% in 2015 in comparison to previous years (Hill, 2016). Also, over 57% of all Quebec households do not go to museums (Hill, 2019). The museum non-attendance percentage in Quebec corresponds to numbers across Canada (TeleResearch Inc., 2003), in the United Kingdom (French & Runyard, 2011), and in Australia ("Museums: Fact sheet," 2010). The reasons why almost half of a population do not attend museums are complex and varied, yet they all originate from remnants of contentious contiguity. Therefore, I try to highlight three pivotal lingering undercurrents that directly contribute to the barriers of relevance: a) the conception of the museum, b) affordability issues in relation to attendance, and c) competition with other offerings.

In the past, museums managed to establish a stature of power through "[d]enial of access" to the general public (Freedman, 2000, p. 296). They were conceived as bastions for the elite to bask in the glory of the conquests. Objects were too precious and sophisticated for the general public to understand or appreciate. Even the naming of the establishment as a 'museum' originates from "the ancient temples of the Muses" (Pomian, 1994, p. 164), which were considered holy places of worship. Accordingly, museums tended to treat their collections as a "sacrum" that was only accessible to the worthy (Pomian, 1994, p. 164). Moreover, since

museums were not intended for the masses, they did not collect to reflect the masses. Hence, the vast nuances of the human existence is generally not reflected in museum collections (Delin, 1994; Sandell, 2007). Collections "are an immensely complex body of material evidence, an archive which embraces not only the physical evidence of our human and natural past" but also carry traces of emotions, trigger feelings and shape perceptions (Pearce, 1992, p. 131). If people do not see themselves in collections, then there are no grounds for museological relationality or consideration. Even if people transcend the perception of museums as catering for a certain set of people and overcome the lack of diverse representation within museum settings, there are still lingering hurdles of accessibility that plague the museum visit.

Moreover, as publicly funded cultural and educational institutions, museums are expected to make collections and information about them "physically and intellectually available to all the communities served by the museum" (Canadian Museums Association, 1999, p. 5). This means accessibility for people with physical disabilities, accommodation for people with cognitive or emotional disabilities, and adaptations for people with learning disabilities or difficulties. It also means reflecting and attending to the multiplicity of racial, gender, and economic backgrounds. However, catering to all communities also means attending to age differences because communities comprise of adults and children alike, irrespective of their social or cultural affiliation. Children are a vital visitor segment because they are the future of museumgoers and/or museum practitioners. Research has proven that children who visit museums or museum-like places with their families are "significantly more likely to grow up to be adults who visit museums" (Falk & Dierking, 2013, p. 54). This leaves much room to question how adult-geared museums are accommodating younger audiences, especially when taking into consideration the elaborate no-touch policy museums adopt, as well as the expectation to remain noiseless

throughout the visit. Usually, parents think twice before taking their children to a museum that provides little or no content addressing a child's interest (Ambrose & Paine, 2006).

Because museums were conceived as symbols of personal vanity and later as icons of national pride (Bennett, 1995), museum buildings were constructed as grand structures to "assert monumentality and make their presentation as revered" (Heumann Gurian, 2005, p. 205). However, these massive museum structures were never "necessarily comfortable icons" (Heumann Gurian, 2005, p. 205); their contiguity was, and still is in many cases, superimposing and overwhelming. Since museums were built as super structures, their floorplans are usually extensive and time-consuming to navigate. Visiting a museum becomes a matter of time affordability, and visitors have to account for time spent at the museum as well as time spent getting to and back form the museum. Even smaller museums pose time affordability and validity concerns because a short visit might not justify the time, money, and effort spent to get to and back from the museum. Moreover, museums do not necessarily always provide the most convenient opening hours (Ambrose & Paine, 2006). For example, the Montreal Museum of Fine Arts is open Tuesdays to Sundays from 10am until 5pm, except for Wednesdays when its open from 10am until 9pm, and is closed on all public holidays (The Montreal Museum of Fine Arts, 2018). Anyone who works a regular morning shift cannot afford to visit the museum, except on the weekend, while anyone with children, and has the time, cannot visit on weekdays because of school hours. Essentially, potential visitors have to work around these restricting opening hours in order to enjoy a comfortable visit without feeling rushed or pressed in time.

Besides the contentious aspects of temporal contiguity, museums also pose problematic manifestations in their spatial contiguity. The fact that museums were, and still are, considered

cultural icons, meant that they were usually centrally located in order to guarantee their prominence in bustling urban settings (Duncan, 1995). Later, some cities resorted to creating centrally located museum clusters, which typically consist of a "high concentration" of museological offerings within a specific geographical area (Tien, 2010, p. 70). These clusters are meant to increase the museums' competitiveness through creating one attractive destination that caters to the varied needs of the "potential customer base" (Weidenfeld, Butler, & Williams, 2016, p. 37).

Museum centrality and clustering affect attendance numbers because they attract most of the traffic in comparison to more remote museums. For example, in 2015, only 30 out of the 422 Quebec-based museums accounted for 75% of the overall museum attendance in the province (Hill, 2016). More precisely, fifteen of these thirty most visited museums were in Montreal, seven in the Quebec City region, and eight elsewhere in Quebec (Hill, 2016). Yet, despite attracting the majority of visitors, museum clustering and centrality pose immense spatial barriers for people who do not live in or near the city centres. Centrality caters to a privileged demographic that can afford to reside in the city centre or lives in an area that is well-connected to the public transit system. Unfortunately, centrality disregards the fact that it becomes costly for a family to travel from the remote neighbourhoods or the suburbs (banlieues) to the city centre, whether through means of private or public transportation. It becomes even more difficult if people live away from public transit stations or travel by car to find limited or no parking in or around the museum (Ambrose & Paine, 2006). Add to the barriers, the fact that museums usually offer inconvenient opening hours means that the visitors become extremely restricted in their time, distance, and cost affordability.

Presently, museums operate within the confines of capitalism and have to "justify themselves in terms of the economic benefits they bring" (Boylan, 2006, p. 12). Hence, in the museum's attempt to achieve the capitalist ideals of "cost-efficiency" and "cost-effectiveness", they "have become more business-like" (Ambrose, 1991, p. 5). Accordingly, many museums still charge for entrance, they might also charge separately for special exhibits or Imax screenings. These admission costs could constitute a financial burden to individuals or families who struggle to maintain a steady income or have more pressing expenses lined up for any available monetary surplus. Museums try to offer concession arrangements, yet they are not widespread due to fact that they remain "treated and assessed in the same manner as any other economic organization despite their overtly non-market purpose" (Carman, 2005, pp. 22-23). There is also further probable spending associated with a museum visit, i.e. parking fees, public transportation costs, and food prices, all of which require fiscal stability and affordability. These economic hurdles are a direct manifestation of "the incursion of market forces into the sphere of culture" (Witcomb, 2003, p. 75). Accordingly, the economic forces that dictate museum operations reflect on the museumgoer, and in return affect museum visits, which consequently disrupt the museum's efforts for relevance.

Aside from affordability barriers, the most prominent reason for people not attending museums is that museums are considered leisurely activities, and as such compete in time and affordability with other leisurely offerings (Falk & Dierking, 2013). Considering that museums are learning institutions (Hein, 1998), they carry a stigma of boredom associated with learning environments (Paris, 2006). For example, when a family plans for a weekend outing, they want their children to be engaged and entertained, so by comparing a trip to an amusement park to a museum, the fun factor tips in favour of the former rather than the latter. There are also other

factors that make families with children decide not to go to a museum for pleasure. These decisions are usually informed by lack of interest in museums or due to the nervousness of taking a child to a museum (Ambrose & Paine, 2006). The lack of interest in museums is mostly a result of being unfamiliar with museum settings due to being unaccustomed to the potential of fun in museums. This usually stems from the absence of museum or museum-like outings during the adult's past childhood activities (Falk & Dierking, 2013). Children who visit museums or museum-like places during their childhood or adolescence develop a sense of comfort towards museums, which consequently leads to feeling more at ease visiting museums as adults, whether alone or with their children. Nervousness of bringing children to museums stems from the lack of facilities that cater to children's needs, and accordingly the child will get bored and fidgety in a space that requires a calm and reserved demeanour. As a result, parents will attract attention that they did not wish to receive. If a family is on an outing, it needs to be stress free and enjoyable to all. Therefore, they opt to visit spaces that easily accommodate the messy, noisy, and active nature of family leisure outings.

Nonetheless, museums acknowledge the shortcomings of their contiguous existence and have been working hard, and sometimes struggling, to shed this sense of exclusivity associated with them. Because museums do not function separate from their societies, they continuously reflect and are constantly shaped by the changing and shifting currents of this coexistence. Museums were conceptualized as empirical institutions serving the elite and managed to get away with a lot of unacceptable practices due to the power dynamics that governed them. However, in the present, museums are being held to higher standards, and are expected to acknowledge, own, and make right their contentious contiguity. Today, according to the International Council of Museums (2007) definition:

> A museum is a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment. (art. 3, sec. 1)

Museums are consciously evolving to become more about people as they are about objects, more about experiences before materiality, and more about inclusivity rather than exclusivity. However, museums are also confined by the economic dynamics that govern our societies nowadays. So, besides catering to "social and educational objectives and priorities", museums also have to "justify themselves in terms of the economic benefits they bring" (Boylan, 2006, p. 12). More often than not, these economic benchmarks shackle the museum establishment's efforts for societal relevance and ethical change.

Efforts for Relevance

Since museums started steering away from a behaviourist stance and adopting a constructivist approach, they have been actively working on becoming more relevant establishments (Bennett, 1995; Sandell, 2002; Silverman, 2002). In embracing constructivism, museums acknowledge the centrality of experiences to learning (Dewey, 1938; Hein, 1995b, 2012), as well as the significance of the visitors' active participation in their learning processes (Rummel, 2008). Correspondingly, all efforts to become more relevant have become visitor-centred to reflect the newfound recognition of the centrality of people to the museum existence (Latham & Simmons, 2014). These efforts are echoed in the museums' endeavours to re-design existing galleries to achieve higher ethicality (Edson, 1997; Kreps, 2011), reverberate in curatorial re-conceptualizations for more inclusivity (Sandell, 2007, 2016; Silverman, 2002), and

resonate in renovation projects for more accessibility and engagement (Black, 2012; Lester, Strachan, & Derry, 2014). However, these intra-museum change attempts are expansive, lengthy, and costly. Attempting any type of physical or conceptual re-design means extensive planning beyond the daily mandate, attending to new stakeholders, and fundraising for the extra cost. Once the renovation is ready to manifest itself, the museum has to close off the exhibit section for specific amount of time; this could be anywhere between (optimistically) a few months up to (realistically) a few years. For example, the renovation project of the Currency Museum to a new Bank of Canada Museum took four years to complete and required the closing of the entirety of the original museum ("The new building project: Renovating, rebuilding - reinventing," 2017). A decision to undertake an exhibit renovation translates into decreasing the available floor space, incurring visitor traffic loss, augmenting operational costs, hiring new staff and contractors, as well as re-assigning the existing staff until the project is over.

To overcome the limitations of in-house re-vitalization attempts, museums venture beyond their walls and provide physical and virtual outreach programs in order to remain relevant. Physical outreach means "taking artefacts and expertise out into the community" to overcome any "circumstances that make it difficult or impossible for some groups" to visit the museum (Talboys, 2012, p. 110). These programs are usually delivered by museum educators and supplemented with informative material; both help frame the program as a learning experience. Physical outreach programs vary in size and application: they range from a set of small boxes filled with objects, to elaborate setups with backdrop panels and display tables, all the way to semi-permanent "satellite facilities" that offer micro museological experiences (Talboys, 2012, p. 110). These outreach offerings are sometimes supplemented with brochures or handouts to help guide the audience through the decontextualized museum experience. Physical

outreach caters to underserved areas and disadvantaged communities (Alexander & Alexander, 2008), which would usually not attend a museum due to physical, financial, or emotional barriers. It also targets schools to help them overcome the logistical burden of transporting students and teachers to the museum site. School outreach supplements the curriculum by offering relevant material encounters with the museum's collection in a classroom setting. Outreach is typically at no charge or at minimal cost for participating audiences, depending on their requirements and needs.

Despite physical outreach filling a pressing gap in museum accessibility, reach, and relevance, it also comes at high financial, logistical, and human capital costs to the museum. Outreach requires additional financing to keep the programs running, since they are not meant to be a one-time occurrence. There are also extra expenses that present themselves by conducting outreach: vehicle and transport costs, mobile container prices, traveling exhibit insurance fees, extra hiring, and additional staff training. Therefore, guaranteeing a budget for outreach through designating part of the museum finances, fundraising, or applying for grants are contiguous to the sustainability of the programming. "The museum staff who manage and deliver these projects require considerable levels of experience, skill, and knowledge" (Hooper-Greenhill et al., 2004, p. 34), since they have to attend to the wide-ranging needs and sensitivities of varied populations. This means a dedicated outreach staff that are continuously provided with training and professional development opportunities. Also, the outreach staff leaves the museum premises for a considerable amount of time, therefore extra personnel is required to compensate for any staffing shortage that might arise. Again, this creates another level of financial and human capital complexity. Moreover, distance is a determining factor in considering the community or school the museum could serve. If the population is outside of the serviced perimeter, then the museum

will not be able to cater to it. Effectively, the museum cannot serve everyone through its physical outreach efforts.

Museums expand on their quest for relevance by complementing their physical outreach efforts with virtual endeavours. Virtual outreach encompasses the efforts to reach a wider audience through online channels, which include websites, applications, and social media. Within these online channels, the online presence manifests itself as digitized collections, databases, archives, thematic online exhibits, virtual gallery spaces, educational material and activities, collection-related games, and visitor information resources. Virtual outreach has the capacity to transcend distance, which offsets any locality barriers imposed by physical outreach. The museum becomes no longer restricted to "the geographical area or the community in which it is embedded" (A. P. O. S. Vermeeren et al., 2018, p. 5), instead it can extend its reach to regional, national, and even international audiences. Moreover, virtual outreach defies museum-audience power relationality because an online presence denotes loss of control by the museum and gaining of agency by the visitor. This is the case due to the fact that online users are always in complete control of the physical and environmental factors, which were typically dictated by the museum setting (see EFM). Online users are also in charge of their navigation and interaction choices, which are classically mapped out and shaped by the museum. For example, outreach through digitized collections deconstructs traditional museological curatorship because audiences "make connections between objects, outside of the chronological or geographical concerns that often preoccupy curators" (McTavish, 2006, p. 241).

Additionally, museums use virtual outreach to give audiences a voice through co-creating content initiatives, encouraging public comments and impressions of an exhibit, and controlling

physical exhibit features through their online presence (e.g. switching off a light or changing text with a click of a button). Virtuality is thus a means for museums to willingly let go of their powers. Furthermore, an online presence creates opportunities that target several audiences through the same dissemination channel. Museums can easily create a multitiered interface platform that speaks to children through "web-based playgrounds" and addresses adults through more sophisticated modes of interaction (Roussou, 2010, p. 252). Virtual outreach is versatile tool that exhibits a lot of potential in maximizing the museum relevance.

Even with its great promise, virtual outreach does pose logistical, financial, and conceptual deficiencies. Maintaining an online presence requires constant updating and maintenance. This means training curators and researchers on how to use the online platforms as well as how to deal with online audiences when answering their questions. It also requires museums to hire a dedicated tech savvy team that will manage the backend of all virtual outreach operations. Moreover, an online presence entails additional spending on copyrights, online security, platform design, domain registration, hosting, and application development. These ongoing costs translate into extra fundraising and budget allocation efforts. Also, virtual outreach is intended as a means of increasing museum relevance, thus increasing the probability of online audiences physically visiting the museum. However, not everyone engaging with a museum's online platform is there purposely, sometimes they land there by chance as a result of their keyword search. Often times people "do not know, and frequently do not care, what kind of institution houses the original material. They simply want access to these rich resources to address their own perceived needs" (Martin, 2004, p. xiv). Finally, virtual outreach poses a serious conundrum because "the increased use of computers is antithetical to the exploration of

material culture" (Talboys, 2012, p. 109). This naturally leads us to question whether virtuality is detrimental to the founding premise of museums as material spaces.

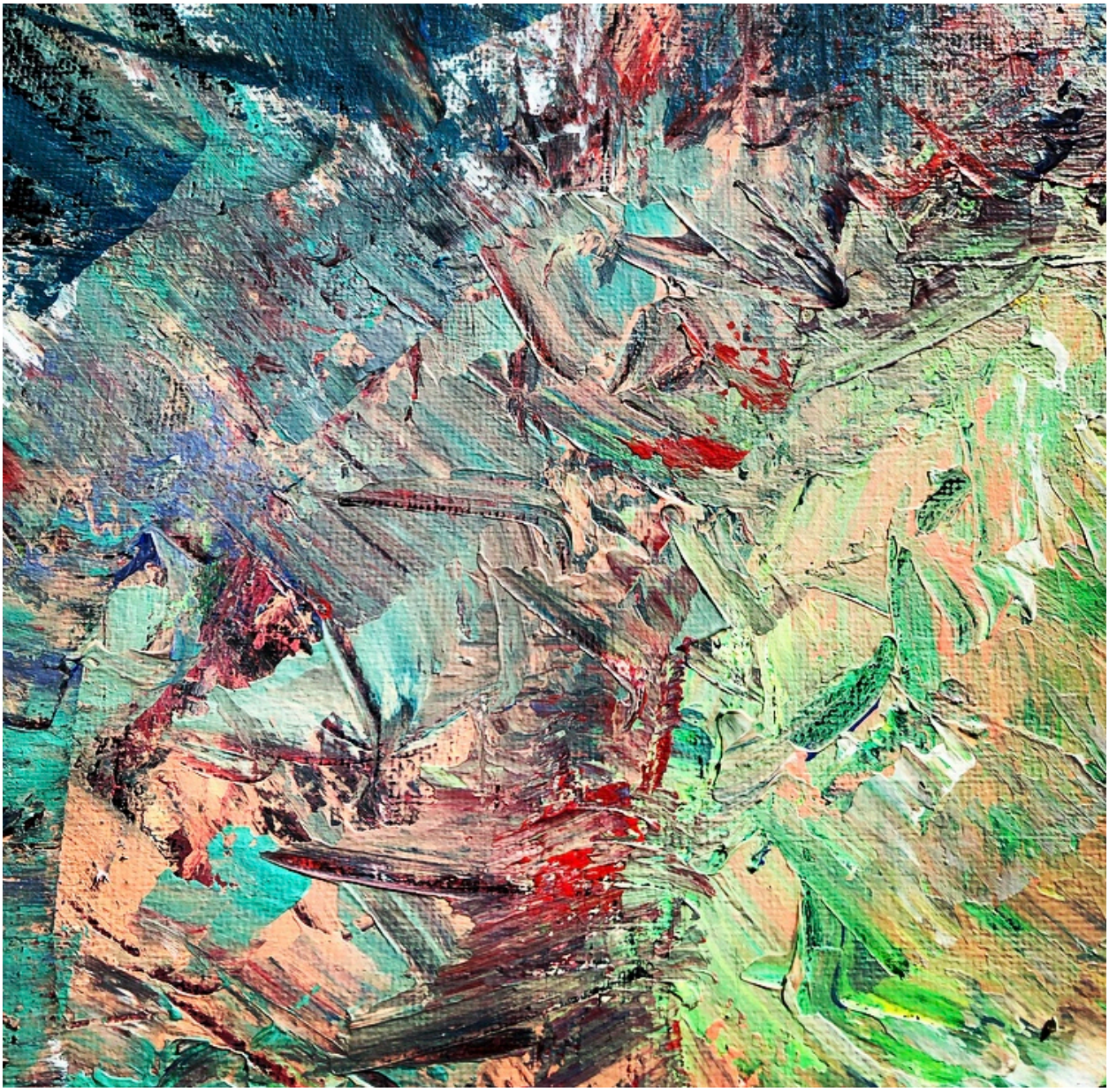
To sum up, museums are heavily invested in outreach efforts; they try to keep up with audience needs and technological trends. However, outreach as it stands today still poses a challenge to museums because of its labour intensive and capital exhaustive natures. The use of the internet has helped overcome some of these barriers in terms of accessibility, time affordability, and cost. Yet, it has not completely solved the problem because the virtual supplements the material existence of the museum without being able to replace it. So, in thinking about the potential that lies in outreach, the question remains as to whether there could be a different approach to increasing the museum's relevance and reach.

Transitions

In this exploration, I re-consider my understandings of museological learning and experiences through engaging with the a/r/tographic rendering of contiguity. The rendering of contiguity has steered me towards exploring my liminal relationality to museums in order to further understand my situatedness in this research. I revisit my earlier perception as a museum visitor in contrast to my later positionality as a museum practitioner. My relationship has shifted from an outsider to an insider, and with that comes the burden of demystification. My earlier adoration of the museum establishment has morphed into informed criticism that acknowledges its shortcomings yet believes in its potential. In causal reaction, delving into the story of my subjective relationality to museums over the course of passing time has triggered me to think about the museum's universal temporal and spatial liminality. In return, thinking about liminality has sparked a curiosity towards understanding the museum's contentious contiguity.

Accordingly, I start exploring the ways in which museums try to overcome the burdens of the past and become more relevant. This emphasizes the need to continue exploring more change possibilities to increase the relevance potential. Contiguity essentially highlights how a/r/tography's embracing of personal and individual inquiry reverberates into global research attempts. Within the theme of contiguity, the liminal existence of the subject matter to the researcher (museums to me) has triggered conversations about the contiguity of the researched in relation to the world (museums to life). Contiguity created openings for further research opportunities, and thus reverberates the research from the personal to the global.

The next exploration is framed by the a/r/tographic rendering of excess, which is a state that is created when "controls and regulation disappear and we grapple with what lies outside the acceptable" (Irwin & Springgay, 2008, p. xxx). I use excess as an opportunity to share my "outlier data" (Siegesmund, 2013, p. 142), which consists of material and immaterial occurrences that are considered unfit for academic usage. These marginal happenings manifest themselves as the reflections, reactions, experiences, and transformations that occur as a result of practicing a/r/tographically. They are my curator/author pauses, where I reflexively interact with experiences in, with, and along my research quest. Excess is also a state of becoming, where a/r/tographers are in a perpetual state of "coming into some sort of new being" (Carter, 2014, p. 23). The process of becoming materializes through practicing inquiry (Irwin, 2008b), which is the making and writing from within (Carter, 2013; Irwin, 2013). Engaging with excess, as the unconventional or becoming, allows for emergent understandings to be re-framed and re-considered in a new light, which in-return create new meaning-making opportunities.



Pause: Excess

Intensify

Deepen

Enhance

Develop

Figure 4.6. Pause: Excess (Medium: Painting)

EXPLORATION 5

Excess: Outlier Data

Excess

Excess literally means the lack of moderation; an amount or action that is "more than necessary, allowed, or desirable" (*Oxford English Dictionary*, 2012, p. 246). It is usually viewed in a negative light because it denotes abundance and lavishness. However, in a/r/tography, excess is regarded as a positive state that is created when "controls and regulation disappear and we grapple with what lies outside the acceptable" (Irwin & Springgay, 2008, p. xxx). By embracing the artful, unconventional, and boundless, excess challenges the long-standing academic traditions of fixed knowledge, which seek finite and conclusive answers that leave no room for uncertainty. Excess also defies academic norms through carving a space for the "inclusion of outlier data" (Siegesmund, 2013, p. 142), which consists of experiences and understandings that would not necessarily count as 'fitting' research material. A/r/tography affords a space for any outlier regardless of their attribution; they could be monstrous, insignificant, or magnificent (Irwin & Springgay, 2008). Excess might uncover new pathways of understanding a phenomenon, change perspectives, or rattle the status quo of the personal and global.

A/r/tographic excess is also a state of becoming, where "meanings and understandings are vulnerable" allowing for a constant "coming into some sort of new being" (Carter, 2014, p. 23). This state of becoming embodies how engaging with a/r/tographic research affords a space for the research to become new-fangled. Through incorporating excess in a study, the unconventional becomes a catalyst for re-understanding and thus re-considering established meanings. Excess also gives the researcher the prospect of becoming because it grants ordinary experiences the potential to re-shape us into *being* through exposing ourselves throughout the re/exploration process. Within the understanding of excess, becoming lingers in the in-betweens, whether for the research or the researcher (Irwin, 2013). Becoming is an undercurrent that re-

shapes the surface and becomes tangible through the realization of becoming. A/r/tographers are therefore constantly "coming to becoming" (Irwin, 2018, p. 195). The process of becoming happens through making and writing from within (Carter, 2013; Irwin, 2013; Springgay et al., 2005). The manifestation of becoming is materialized in practicing inquiry, as practicing is the essence of becoming (Irwin, 2008b). It is a complex interrelated occurrence: Becoming happens because of practice, while practice is inherent in becoming, yet practice only becomes becoming during or after a practice occurs.

In this exploration, I use excess to share the outlier of my lived experiences engaging with a/r/tographic renderings to explore the understandings of museological learning and experiences. The reflections, reactions, experiences, and transformations that occur as a result of practicing a/r/tographically. They are my personal pauses, where I take the time to reflect on happenings in, with, and along this research. These excess pauses might not directly fit into the theoretical and contextual makeup of the study, but they definitely constitute part of the conceptual and methodological frameworks that govern my inquiry. This way, in my careful attending to a/r/tographic renderings, I am not only making a "courtesy reference to excess" (Sinner, 2017, p. 46), but I am actually embracing it in a candid effort to challenge my understandings thus far. In sharing what might not be considered 'proper' research material, I am consciously embracing a/r/tographic fragility by exposing the personal and marginal. I am also sharing my excess in an attempt to uncover new meanings to my research. In keeping with the unconventionality of excess, I am deliberately using simpler prose that might not be considered standard academic writing. This is to conceptually and materially embody the outlier nature of excess in this exploration. Structurally, the presentation of ideas is fragmented and fluid in an attempt to reflect excess' characteristic lack of "controls and regulation". I am embodying the

features of excess in an effort to make this exploration become excess.

To the Love of A

"Sara, could you come to the board and write an A, please?" she asked calmly. So, I got off my tiny chair, walked to the blackboard, took the chalk, stood on my tiptoes, and started slowly drawing the shape of an A. "Very good" said my kindergarten teacher. I was instantly filled with a sense of accomplishment. That was my first recollection of the start of my journey of writing. As the years went by, I moved beyond the art of drawing letters, to the world of weaving words. I wrote poetry, maintained rather dramatic diaries, and with the onset of technology opened an anonymous Twitter account and blog. I grew to appreciate words more than numbers; I enjoyed the struggle of deciphering a poem more than a mathematical equation. However, the older I grew, the more life seemed to impose quite a rigid genre of writing on me. At work, I wrote these functional, lifeless reports, which usually were in bullet points. Then, during my years of seeking postgraduate degrees, I was obliged to write these long tedious research papers, including the master's thesis. I never seemed to enjoy writing scholarly text. To me, they lack excitement and allure. Simply put, they are extremely boring. I appreciate text that can capture me, even if it was about molecular reactions in outer space. I enjoy writing to the point, without going on and on about the same thing in ten different ways. I relish teasing my readers (if there are any), sometimes with subtle humour, other times through emotional tickles. So, now that I am back in academia, I am faced yet again with the all so infamous scholarly style that I utterly despise. By now, you would probably be asking yourself if I am a masochist, and I would have to partially affirm it. Nevertheless, I am also an avid believer in breaking the rules once they are mastered. I will learn to paint my research to eventually create a colourful dissemination. This is my journey and I intend on enjoying it, just like I enjoyed drawing my

first A.

The opportunity to practice my research a/r/tographically affords me the space to explore beyond the confines of the infamous scholarly writing style. Through the meeting of art and graph in a/r/tographic research (Irwin, 2008a), I embarked on my inquiry quest thinking of art and text as distinct, standalone mediums that meet in my work to complete one another. However, after practicing a/r/tographically, I am able to recognize that art and graph are not only constantly meeting but are also part of one another: I think artfully about my textual practicing and complement textually in my artful renderings. This realization constitutes a significant "point of transition" along my research quest (Siegesmund, 2012, p. 108), especially that it shifted the lens through which I view the relationality of art and text. It is an understanding that opens a space to view the in-betweens of art and graph, as well as the becoming of art with graph, and vice-versa. As such, my drawing of an A in Kindergarten becomes my drawing of text today; it is my moment of "border crossing" between past and present (Carter, 2013; Siegesmund, 2012, p. 108).

Lost Shoes

I am captivated by the idea of discarded things, whether in the form of people throwing away objects they no longer need/want or nature shedding excess in order to survive. As fragments of a bigger existence, these discarded things/objects/excess carry stories and meanings of something that is or was. Within my practice of art, I have been working on a photographic series that captures the fragments of our existence through discarded shoes. The theme of the discarded shoes symbolizes the distinct journeys people take in life. These shoes once facilitated the journeys of their owners, and now that they are worn out or no longer in fashion, they

become waste, and with that turn into a sad sight on the side of the road.

So, when I was considering my entry for "Picturing Research", an exhibit showcasing what research means to doctoral students at the Faculty of Education, McGill University, I immediately thought about this one specific shoe I photographed: It was not in a pair, seemed like it once was very elegant, but it was resting there by a park fence. To me, the idea of re-visiting my understanding of museums and museum experiences is trying to discover the story of a cast aside item; I have been there and done that, why go there again? And, this is when a shoe started representing how I feel about research (see figure 5.1).

This was my first attempt at bridging my previous art concepts with my academic endeavours. At the time I did not think of it as an a/r/tographic act; but, in retrospect, it exhibits the liminality of the forward slash of the artist, researcher, and teacher. I am using my artmaking as an artist to frame my artful endeavours as a researcher within the academic setting of education. I have also come to realize how my arrangement was a manifestation of the meeting of art and graph. I use words to supplement a picture in order to better contextualize it. This way I can give my audiences prompts to help them think about the image context and beyond. Moreover, this photograph reveals how the act of revisiting the old could uncover new meanings. The initial photograph was taken as part of an ongoing photography series on which I have been working for years. There was no specific message associated with that photograph, however through revisiting the same image through an academic lens I ascribed different meanings to it. The lost shoe has become research.

To highlight the shadows

To notice the unremarkable

To reveal the hidden

To discover the unknown

To create the new

Figure 5.1. The lost shoe

Art Revival

Years of professional engagement with the arts, as a museum practitioner, caused my personal art practice, as an artist, to die. Routine, pressure, and lack of time created optimum conditions for the fading of my recreational and individual artistic expressions. I stopped writing poetry, drawing, and painting, but I continued with photography only because of the convenience of the cell-phone's camera. The photographs were not necessarily produced for artistic purposes but rather to document memories; an act that was once imaginative became highly mundane. The lack of practicing artfully, as an artist, instilled in me a fear that my techniques were rusting. This perceived sense of diminished confidence in the quality of my artistic skills manifested itself in my teacher/educator practice as a conscious choice to provide very little drawing and painting technique demonstrations. Although is it crucial to demonstrate art techniques, I would usually opt for giving students suggestive approaches instead.

Then, one day, while I was writing a paragraph about the relationality of art and text and the power of art in expressing what words fail to communicate, it simply hit me: I am writing about a practice that I stopped practicing. I am writing as an insider, when I am actually an on-looker. I describe myself in this work as an artist, but I am only an artist who once was. At this point, I realized I had to become my research in order to stay truthful to myself and my research. With this realization, I started dabbling more and more with my pens, brushes, and paints. As cliché as it sounds, engaging with a/r/tographic research has revived my artistic expression as an artist and teacher/educator. Ever since, I have started sketching again, produced a few paintings, and discovered that the rustiness was self-imposed and not actual. My aha moment has also affected my teaching quality; I now opt for more live demonstrations and paint or draw with my students. My a/r/tographic practice created a newfound confidence and passion for my work as

an art teacher/educator. This was a clear manifestation of the intersectionality of the hyphenated space: my researcher-self revived my artist-self, who then re-invigorated my teacher-self. Now, this interplay between a/r/t echoes in this research through the meeting of art and word.

Figure 5.2. Palette knife demonstration in my painting class (Acrylic on paper)

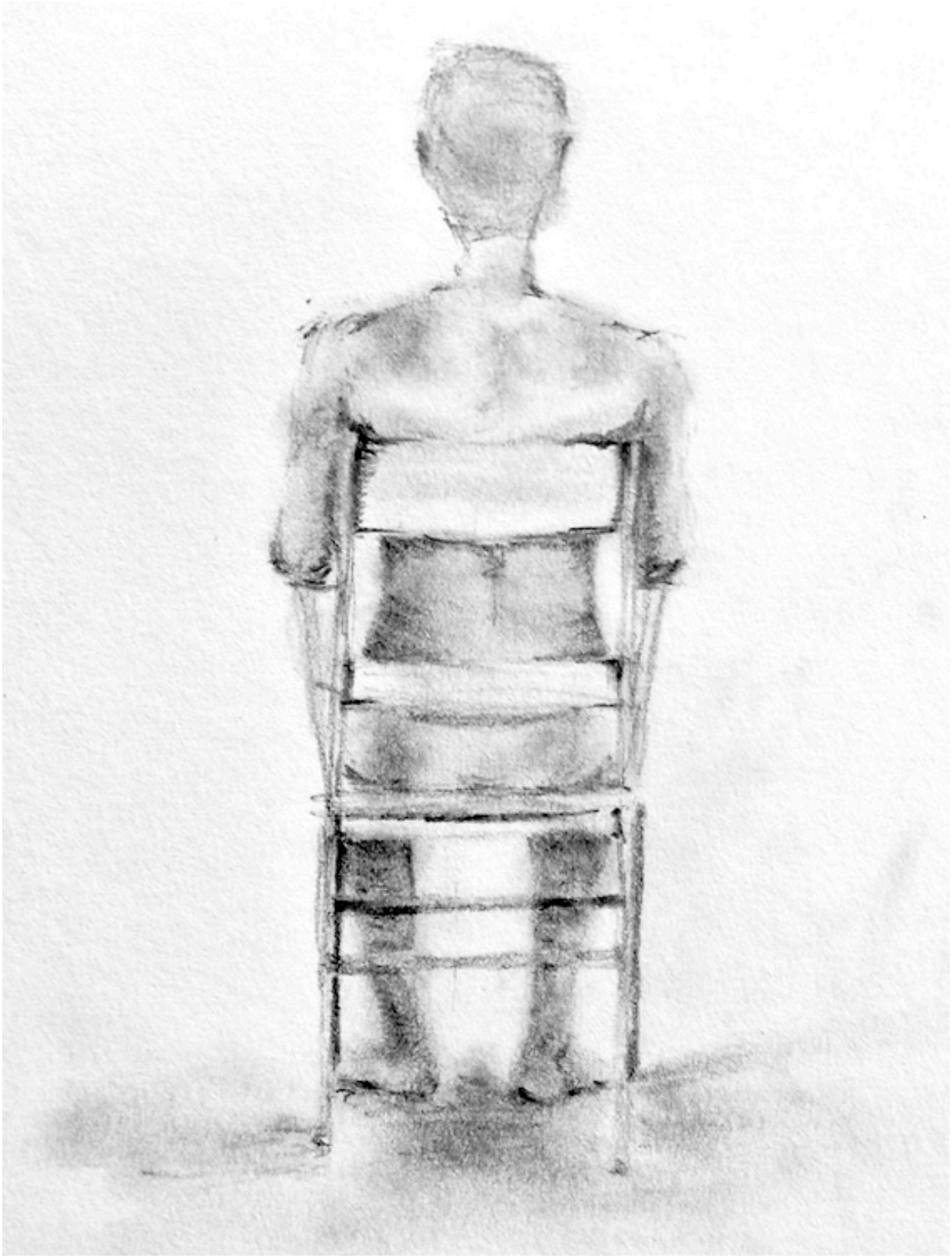


Figure 5.3. Figure study demonstration in my drawing class (Graphite on paper)

Witnessing first-hand the capacity of a/r/tography in rekindling my creative flame re-confirmed my belief in the power of arts-based research in prompting meanings (or quantitatively stated: eliciting results). Not that I am an arts-based disbeliever, on the contrary, I am an avid proponent of the arts and fought hard to carve my artistic existence within a family of scientists and engineers. I remember when taking my painting assignments home, I would get the occasional raised eyebrow along with an expressive "is that it?". Also, my friends at university would constantly belittle the effort that went into studying art, "oh, you just go to class and paint". I have to be honest and admit that being raised amongst empiricists and being the only one in the family to specialize in the arts and humanities cast the occasional doubt on the validity of my work. Also, the overall societal perception of art as being easy and non-realistic does not help build confidence in my work. But it is those moments of artistic realization, discovery, re-discovery, renaissance, and revival that my doubts are cast aside, and I am shown that arts-based research matters, whether individually or universally.

Lingering in the Liminal

When writing about the relationality of art and text, I started thinking about a study I conducted back in 2006, titled "Rewriting object labels for deeper learning: A case study from the Egyptian Museum in Cairo" (Hashem, 2014). The paper showcases the findings of a qualitative case study that aims to understand how rewriting object labels could lead to deeper learning. Using the object label of 'Seneb and his family', located in the Egyptian Museum in Cairo, this research highlights the process of reproducing text that offers better readability, intelligibility, accessibility, and interaction. It also provides a global perspective by investigating the production of English text targeted at non-native English speakers. Moreover, it offers solutions for enhancing visitor engagement through re-envisioning the thematic, visual, and

textual elements of the object label.

After re-reading my paper, I was surprised to find that the art and text relationality, the accessibility of text, and the quest for deeper learning were themes that have always been present in my museological work. Nevertheless, I have never recognized this thematic interconnectedness before. For only when I started to a/r/tographically revisit my experiences in and with museums did I begin noticing the parallels between my earlier work and my current study. It seems that the themes that presently concern me, have been lingering in the liminal until this very moment. Below are excerpts from my paper illustrating the contiguity of my previous research to this body of work.

Excerpt 1: The following text showcases my preoccupation with accommodating museumgoers as well as the possibilities of engaging with them. I also reference the theoretical framework of constructivism in relation to the visitor experience; a framework that still guides my work to this very day. (Please refer to exploration 2 to read more about constructivism in relation to this research.)

> Since museums take it upon themselves to be places of learning, and draw upon theories of constructivism and hermeneutics in respect to how they approach their audiences (Hooper-Greenhill, 2000), then label texts have to become more than just a description, and actually engage the audience in a dialogue. This could only take place if the museum considers the individuality of the museumgoers, their accessibility needs, as well as their desire for learning. After all, in most cases, museum visitors are there by choice, and are eager to engage is an educational experience. (Hashem, 2014, p. 9)

Excerpt 2: This passage shows how the relationality of art and text have been at the core of my previous attempts to understand ways of optimizing the museum experience.

> The visual experience accompanying museum text is just as important as the academic and didactic aspects of it (Lord & Dexter Lord, 2001, p. 395). Also, adding the appropriate visual and design elements to labelling systems does affect the interpretation of an exhibit (Belcher, 1991); it could either engage the visitors or make the experience completely inaccessible. (Hashem, 2014, p. 15)

Excerpt 3: In this extract, I introduce the idea of seeing the museum experience as a network, a concept that strongly resonated with me after reading George Hein's work (1998). To me, the network idea demonstrates my preoccupation with museological power structures and the museumgoer agency.

> Furthermore, to increase the educational impact of the label design, I introduced the concept of an "access to a network" (Hein, 1998, p. 89), where the museum is presented as a web of knowledge that the visitors could access as they see fit. Nonetheless, it is up to the museum to present the appropriate links and cues for the visitors to further their access to this network of meanings. For example, referencing other objects that could be of similar quality or interest […] aids the visitors in creating their own connections between objects. This gives the visitor agency and dismantles the power hierarchy the older label imposed. (Hashem, 2014, p. 17)

The excerpts above do not only exhibit the liminality of my previous research to my current study, but they also establish the idea of becoming. Engaging with my previous work

regarding rewriting object labels for deeper learning has *become part* of my researcher and practitioner selves. The ideas that have emerged back then continued re-shaping my approaches to my ongoing research efforts. I had not made that realization until I uncovered these correlations through immersing myself a/r/tographically in this inquiry. Also, I now recognize that throughout my years working in museums, I have developed different interpretations of the network idea in relation to museums. From my study into object labels, I tackle the idea of the network as an intra-institutional application. Later, through my work with Discoverama, Egypt's decentralized children's museum, I approach the network idea as a museum-community partnership. Now, thinking about the network idea, I think of it as an inter-institutional manifestation. This new understanding constitutes a "point of transition" in my thinking about the potential of museums. I will further explore this idea through the lens of a/r/tographic reverberations, which capture the resonance of my research quest thus far.

Who Am I?

Writing in depth about the multiple identities we assume in life led me to thinking about my perception of myself. Who am I? I teared up thinking about it because I really have no idea. I do not know who I am. At some point, I was so many things; now, I have *become* a new set of things. I have lost and gained along my journey in life, rendering me ever-changing. So, I could not clearly pinpoint who I really am nor what makes me who I am. At this point, more tears started running down my face, and I could not control myself. I started retreating into a dark place, where I was only seeing the negativity of my inability to identify myself in a word or even a sentence. After maybe a good half hour of dwelling in nothingness, I managed to snap out of it. I reminded myself that it is okay to be multiple and that it is okay to not know. After all, I have been writing about embracing the in-betweens and accepting vagueness, yet here I was refusing

to admit to ambiguity. This is when I realized that I need to become what I practice and practice what I have become.

The only way I could express who I am, was through my practice of art. Whenever I am unable to properly verbalize a lingering feeling or a vague sensation I resort to art, especially painting. I find comfort in the language of colours, the back and forth movement of brushstrokes, the excess of paint that adds an embossed texture to a flat canvas, and the randomness that overtakes any planning. Accordingly, I decided to paint myself out of pain and produce a piece that represents multiplicity in one unit (see figure 5.4).

After a semi-lengthy inner monologue, I was inspired to produce a self-portrait that is looking inwards as a symbol of reflexivity and retrospectivity. I consciously made a choice to render me from the back in order to convey the vagueness I encountered asking myself who I am. My intention is for the audience to ask themselves: Who is this person? This is my way of sharing my feeling of ambiguity with my audience. Also, by depicting myself from the back, I am considering it my attempt to leave something behind and move toward something new. In essence, by looking at my self-portrait I am following me into a new direction. The rendering in multiple colour strokes represents the multiplicity of my experiences, self-perceptions, and self-identifications. The brushstrokes are thick and dense to give a sense of dynamism and movement.

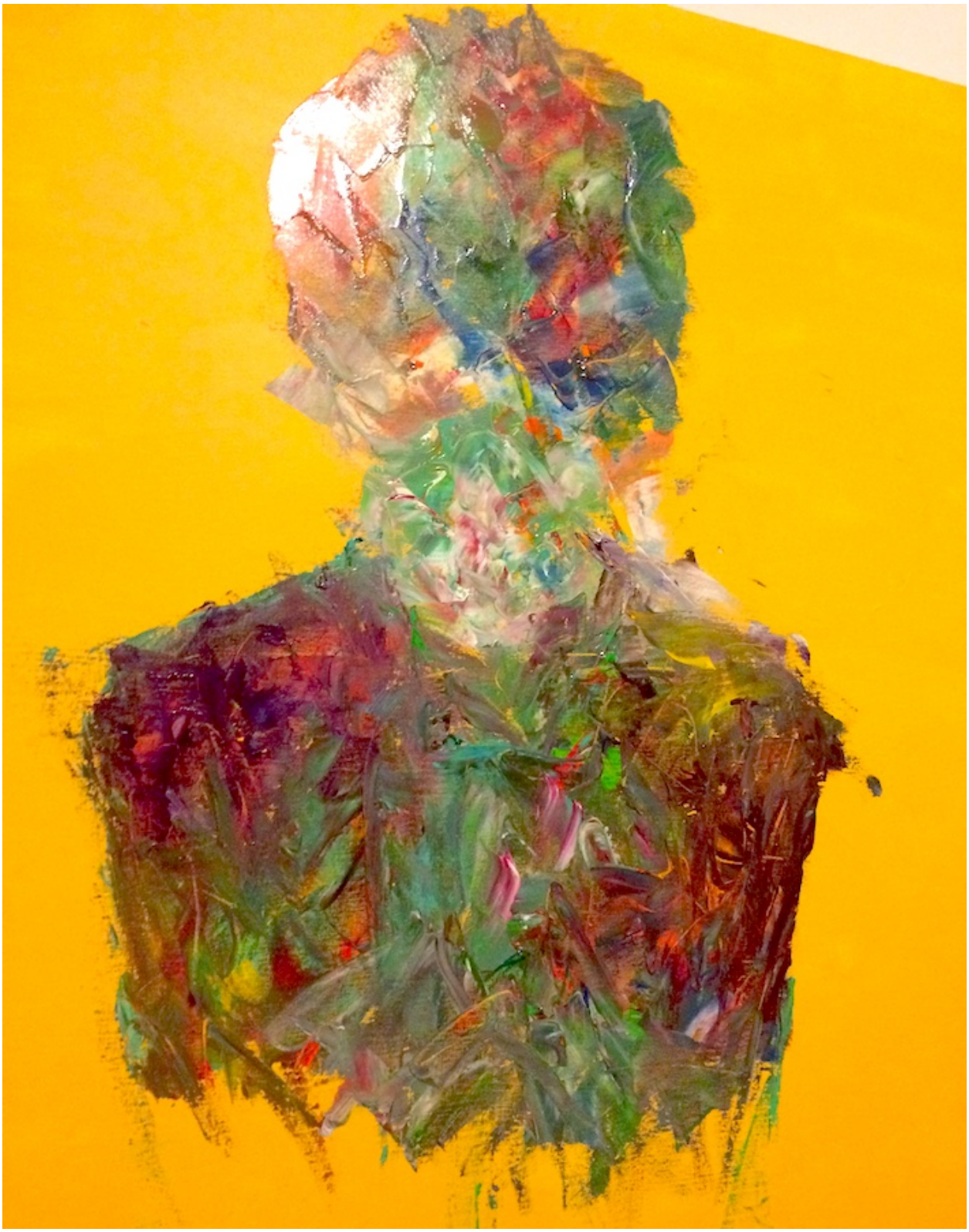


Figure 5.4. Self-portrait (Acrylic on canvas)

In retrospect, I see how this artful process was a manifestation of a/r/tographic excess, not only of thoughts but also of paint. These thick strokes are the excess that make the painting come to life. The excessive use of colour is the vibrancy of multiplicity. The large size of the canvas (1m x 1.5m) represents the overwhelming capacity of thinking about the self. As for the excess of thoughts, it is a process that allows for the un-becoming of the old and becoming a new. It is a state of constant "coming into some sort of new being" (Carter, 2014, p. 23), whether in relation to the self, research, or the world. As such, I might consider re-visiting my self-portrait throughout this research, and re-working it according to my newfound states of becoming. I am also thinking about the possibility of creating a series that captures the morphing perception of the self in relation to constantly becoming.

The State of Becoming

Through engaging with excess, I have come to realize that I have been in a constant state of *becoming*, where every occurrence shapes and re-shapes me in relation to my research. My schooling and life experiences continue to mould my relationality to art, writing, and research, what has happened then lives in the liminal of what is happening now, and together they linger in the in-betweens of what might happen next. Excess has also allowed me to recognize my state of becoming in juxtaposition to life in terms of the ways my a/r/tographic practices resonate in my everydayness. Practicing has created a living inquiry beyond the scope of this study, opening a space to inquire into my "outlier" practices and experiences (Siegesmund, 2013, p. 142). Through inquiring excessively, I have come to understand that "[t]here can be no being a/r/tography without the processes of becoming a/r/tography" (Irwin, 2013, p. 200). As an a/r/tographer, I am warranted the space to be a/r/tographic in my approaches, which means being afforded the forward slash of the artist, researcher, teacher, as well as granted the powers of art

and graph. However, in order to be a/r/tographic, I have to practice a/r/tographically, which in return means that this act of practicing will make me become a/r/tography.

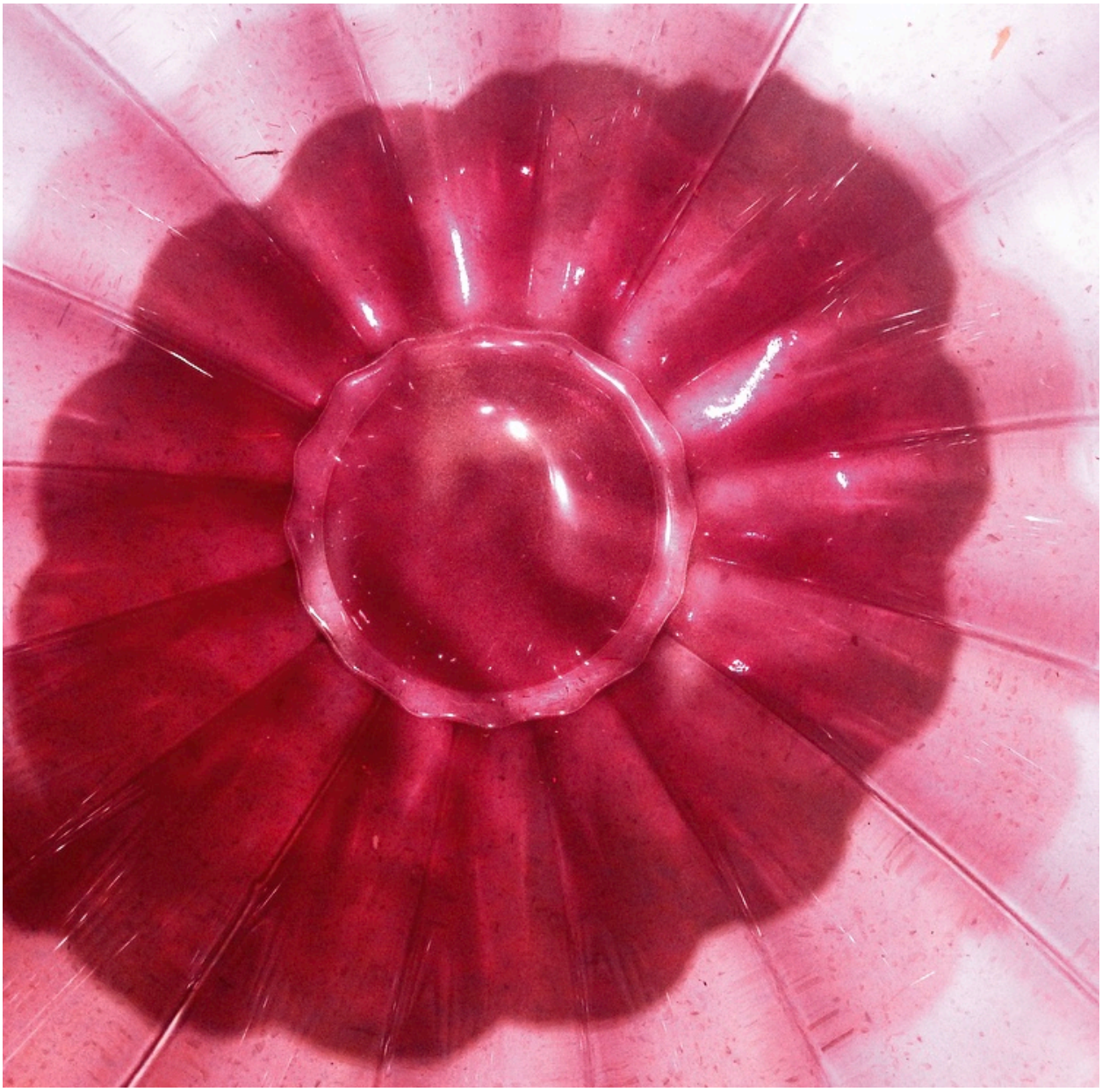
The interconnectedness of a/r/tography and becoming is clearly manifested in my exploration of excess. I have become more aware of the discrepancy between my research about being artful and my practice of art. I have become more cognizant of the relationality of my schooling to my work. I have become more mindful about the multiplicity of our existences and shifting identities. I have become more aware of the constant state of change in our everydayness. I have become more aware of the core concerns I grapple with in my museum practice. Although excess might be considered an overindulgence, by delving into the marginal excess of research I have become a/r/tographic: I now practice art not just talk about it; I acknowledge the traces of previous academic experiences in shaping my current research stances; I embrace the marginal as part of my research. Excess, then, "is a way to re-image ourselves into being; re-assembling the mundane of our experiences" (Springgay et al., 2005, p. 907). The process of becoming into new being allows for emergent meanings to reverberate through the fresh lens of this newness.

Transitions

This exploration highlights the marginal of my lived experiences engaging with a/r/tographic renderings to explore the understandings of museological learning and experiences through embracing a/r/tographic excess. I engage with the possibility of affording the "outlier" a chance to become part of the inlier (Siegesmund, 2013, p. 142). I openly share the ways in which practicing a/r/tographically has manifested itself in and beyond the research. I specifically focus on the relationality of my academic encounters to my research, my living inquiry to my art

practice, as well as my engagement with the forward slash to myself. The liminality of the everydayness emerges as a newfound understanding to practicing a/r/tographically. Research is constantly contiguous to my daily experiences, but my every-day is equally bordering my research endeavours. Accordingly, I am in a constant state of *becoming*, where daily occurrences shape and re-shape me in relation to my research, while my research changes and re-changes me in relation to life. Contiguity is excess, and excess is contiguity, and they both reverberate in the in-betweens of research and life. Therefore, it becomes essential to rattle the in-betweens in order to understand the bigger picture of the personal and the global.

In the upcoming exploration I use reverberations to instigate "a dynamic movement, dramatic or subtle, that forces a/r/tographers to shift their understandings of a phenomenon" (Irwin & Springgay, 2018, p. 174). Through re-visiting, re-exposing, and re-arranging my understandings, I am afforded a space to uncover new meanings to my study. Inquiring into reverberations is a complex undertaking because meanings resonate "at deeper levels, across time, and/or with others" (Irwin, 2008a, p. 28). Reverberations have to be allotted sufficient time to echo back and forth until they settle; but even when they settle, any subtle movement could trigger another resonating exchange. Also, if others engage in reverberations, then meanings continue to resonate in a continual ripple effect, re-shaping with every new gradation. In attending to reverberations, a/r/tographers acknowledge that meanings are in a continuous state of "coming to becoming" (Irwin, 2018, p. 195). In that sense, I progressively engage with reverberations to uncover new meanings to my emergent understandings of becoming in and with the research. Within the bigger picture, I explore these emergent understandings with the aim of provoking new understandings of the potential of museums.



Pause: Reverberations

Resonating

Expanding

Moving

Transforming

Figure 5.5. Pause: Reverberations (Medium: Photography)

EXPLORATION 6

Reverberations: Findings and Discussion

Reverberations

To reverberate is to have an echo or resonance that has "continuing and serious effects" (*Oxford English Dictionary*, 2012, p. 1521). In a/r/tography, reverberations "call attention to the movement that shifts meanings" (Irwin, 2008, p. 4). Reverberations are the new understandings that echo out of engaging with a/r/tographic research. They could deepen a meaning, shift the perception of a phenomena, or rattle any preconceived notion of knowledge (Irwin & Springgay, 2008). Reverberations are the product of attending to a/r/tographic renderings, the meeting of the visual and textual, and the endless interchange between artist, researcher, and teacher. Reverberations can also result from the exchanges between the author and the viewer/reader. It is a space that allows for new meanings to emerge after the research is completed. Reverberations afford the capacity to extend the effect of inquiries beyond the published text and art.

Within the context of this exploration, reverberations frame the emergent understandings from my research thus far. Through embracing the power of a/r/tographic reverberations, I hope to carve a space that can take the conversation beyond my current research. I carefully attend to the understandings I have uncovered on my inquiry journey in order to unearth new understandings of the potential of museums. I scaffold all tentative discoveries from previous explorations in an effort to further explore their reverberations. Through careful attending to the reverberations of engaging with a/r/tographic renderings, I revisit my new understandings of the contextual and theoretical frameworks of museological learning and experiences in order to respond to my guiding question:

What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences?

In this exploration, I keep an open mind in interacting with my previous and new understandings in order to uncover a new way to move forward. I organically interact with new understandings as they transpire. I allow the ebb and flow of reverberations to guide me through this exploratory inquiry. I embrace any dynamic or dramatic movement that might shift my perception of a concept, whether through diving into meaning or swaying towards a "slippage of meaning" which could re-shape preconceived notions and re-construct meanings anew (Irwin & Springgay, 2008, p. xxx). Accordingly, I acknowledge the possibility of reverberations in changing meanings, and in return my work, and in response myself.

Encounters and Discoveries

There are multifaceted and interconnected understandings that continue to emerge from my inquisitive a/r/tographic journey. Due to the interconnected and complex nature of the emergent understandings, I attempt to divide them into three distinctive categories in order to facilitate their navigation: a) methodological understandings, b) theoretical understandings, and c) the interplay of a/r/tography and museums. I first start with the methodological understandings in order to highlight the integral role of a/r/tography as a method in shaping this study. I revisit my methodological understandings to showcase how a/r/tography not only frames a study but also carves a space for practicing within a study. This sheds light on the role methods play in prompting meanings in and through research.

Then, I re-explore the theoretical understandings with the aim of unravelling the complexity of my guiding question: What are my lived experiences engaging with a/r/tographic renderings to explore understandings of museological learning and experiences? I specifically attempt a theory-method relational re-exploration of experience-centric learning, the Experience

Factors Model (EFM), and the Experience-centric Learning Web (ELW) in order to uncover new meanings to my theoretical understandings of learning and experiences in museums.

Ultimately, I use the interplay of a/r/tography and museums to highlight the meanings emerging from the cross-fertilization of the method and the research framework. I engage with these emergent understandings to afford a space to further explore new understandings of the potential of museums. I do so by highlighting the theoretical and conceptual relationalities of museums and a/r/tography as they pertain to the overall framing of newfound meanings. I also showcase how a/r/tography reverberates in understanding the museum's metaphoric and metonymic as well as contiguous existence. Hereafter, I engage in a discussion of my reflections, impressions, and understandings in order to find new understandings of the potential of museums.

Methodological Understandings

Methodology is an integral part of this research and it helped unearth many understandings in and with museums. Each a/r/tographic rendering structurally guided me through my research journey by facilitating the navigation of a complex set of intertwined and multilayered concepts that relate to understanding the potential of museums. The metaphoric qualities of openings broadened the lens through which I approach this research. Engaging in living inquiry and building on my previous understandings of museum theory and experiences helped me gain a more profound understanding of the conceptual and theoretical frameworks that govern museum learning. Exploring the renderings of metaphor and metonymy reinforced the efficacy of engaging in arts-based research, as well as substantiated the use of a/r/tography to methodologically guide my research journey. Delving into the concept of contiguity carved a

space for me to situate myself and afforded me the chance to move from the personal to the global through discussing the museum's contiguity to everydayness. Embracing excess exposed the liminal and marginal of practicing a/r/tographically and reinforced the idea of becoming in and with research. Now, through the rendering of reverberations, I engage with the resonance of the intersectionality of renderings in all previous explorations.

Although I separately attend to each of the renderings, their interrelatedness and connectedness reverberate through each exploration. Therefore, I carefully pay attention to the echoes of all five renderings respectively within each one. I showcase the renderings' interplay that takes place whenever I specifically delve into one exploration. The premise of this complex analysis is to highlight the contiguity of renderings in order to underscore the relationality of their individual and collective qualities.

Renderings' interplay. Exploring how the renderings' interplay is a complex and intricate undertaking. I am coming to realize that it could be a thesis on its own. However, considering the magnitude of the interplay's effect in substantiating how individually attending to the renderings does not negate their interconnectedness, I proceed to highlight the broad connectivity traces between all six renderings. The rendering of openings channels the symbolic qualities of metaphor and metonymy through the representational use of curation in the research. The use of openings is also framed at its core by the practice of living inquiry which incorporates lived experiences in research. It builds on the rendering of contiguity in the author/curator positionality in relation to a/r/t and art and graph. Openings exhibit some excess in the inclusion of the poetic response to sharing my research intentions. All of this reverberates in the methodological, theoretical, and conceptual construct of the study.

The development of the rendering of living inquiry is inspired by the premise of openings created in the preceding exploration. It builds on the symbolic powers of metaphor and metonymy to capture complex theoretical concepts in visual models. It borrows from the underpinnings of contiguity to frame museum – audience relationality. Living inquiry triggers a lot of excess that results from reflecting on my previous experiences working in museums and researching museums. Hence, the emergent contextual and theoretical understandings strongly reverberate in my approach to the study.

The framing of the rendering of metaphor and metonymy is inspired by the premise of openings created in the first exploration. It is guided by the conceptual premise of living inquiry in bringing practice to research and employs contiguity to frame the author/curator positionality in relation to hyphenated space and art and graph. It also generates an epiphanic excess that inspires me to get back to practicing my art.

The emergence of the rendering of contiguity is motivated by the proposition of openings created in the first exploration. It is steered by living inquiry in bringing my experience in and with museums into my study. It capitalizes on the symbolic powers of metaphor and metonymy to highlight the a/r/tographic construct of the forward slash as well as art and graph. It evokes excess in relation to my relationality to academia and museums. Within contiguity, the personal reverberates into the global, uncovering emergent understandings about temporal and spatial contiguity in museums.

The rendering of excess finds its place in this study because of the space afforded by openings and as a result of engaging in living inquiry. It harnesses the representational powers of metaphor and metonymy; it embodies contiguity through constantly lingering in the in-betweens;

and it embraces reverberations through continuously being in a state of becoming.

The materialization of reverberations exists because of the opportunities created by openings. It is the echo of delving into living inquiry, the resonance of metaphor and metonymy, the suggestion of contiguity, and the re-shaping by excess. So, despite each rendering individually framing an exploration, their underlying interconnectedness continues to resonate throughout the whole study.

Expressions of renderings' interplay. In harnessing the essence of openings in offering opportunities to explore "in unstructured and often unexpected ways" (LeBlanc, Davidson, Ryu, & Irwin, 2015, p. 357), I structurally embrace living inquiry, which allows multiple entryways into the study. This open arrangement is my demonstration of keeping with the a/r/tographic premise of living inquiry's methodological fluidity and flexibility (Irwin, 2004; Irwin & Springgay, 2008). Bodily, openings present the contiguity of art and text, and as such I capitalize on the ways my textual research relates to my creative practice. Openings also acknowledge the openness in the contiguity of artist, researcher, and teacher (Springgay et al., 2005), allowing for the multiplicity of the researcher's existence to reflect throughout the work. The meeting of openings and contiguity helps diminish any ambiguity surrounding the author's positionality, which paves the way for transparency without any insinuation of neutrality. It also infuses the study with multiple viewpoints as a result of engaging with different identities and positionalities.

Also, within the exploration of openings there are strong metaphoric and metonymic manifestations in my curatorial choices to arrange this research as a museum experience. Within the bigger picture, metaphor frames the symbolic arrangement of my research to mirror a

museum experience, whereas, on a chapter level, each chapter, here called explorations, metaphorically represents a theme. The work is arranged thematically in order to allow for multiple entry points and flexible navigation. Metonymy is expressed in the way renderings conceptually embody the structure of this study. The conceptual framework of a/r/tographic methodology is comprised of six renderings: openings, living inquiry, metaphor and metonymy, contiguity, reverberations, and excess. I use each of the six renderings respectively to metonymically signify a research section. Openings embodies the conceptual framework, since it lays the groundwork and rationale for the study. Living inquiry represents the theoretical framework of museums because both found on the centrality of experiences to meaning-making. Metaphor and metonymy symbolize the methodology because a/r/tography denotes strong symbolic undercurrents. Contiguity suggests the situatedness of the author (myself) and the contextualization of the study because it highlights the spaces in-between. Excess expresses the marginal because it affords a space for the outlier. Reverberations imply the findings because it symbolizes the earthquake a/r/tography causes in order to uncover new understandings. In using renderings to metonymically frame explorations, I essentially replace a word for another word in order to "emphasizes a displacement in the subject/object relation" (Springgay et al., 2005, p. 904). Although openings create opportunities to engage with research, it still needs to interplay with the rest of the renderings in order to substantiate its a/r/tographic clout.

In exploring museological learning and experiences through a living inquiry approach, I respectively channel strong undercurrents of contiguity. These mainly manifest themselves in the inclusion of the museum practitioners' contributions to the discourse of learning in museums. The practitioner voice mostly lingers in the liminal of museum theory because it is mostly attributed to a contributor rather than an author. By including the voices of museum practitioners

like Louise Connolly (1914), Beatrice Winser (1937), Anna Billings Gallup (1907), and Delia Griffin (1907), I highlight the interrelatedness of museum theory and practice. The progressive practices of these museum professionals reiterate the centrality of experience to learning, and thus substantiate Dewey's theorizing about experience-centric learning. Through the inclusion of predominately female voices from the late nineteenth century progressive movement, I deliberately emphasize the role women played in shaping museum theory and practice.

In establishing the contiguity of the hyphenated space and the meeting of art and graph, metaphor and metonymy frame the philosophical roots of the concept of a/r/tographic interconnectedness. In a/r/tography, the premise of interconnectedness builds on the metaphoric use of rhizomes in Deleuzeoguattarian philosophy. As previously explained, in nature, rhizomes are a shoot and root system that have the ability connect at any point to other root or plant structures. In my research, the budding hyphenated space embodies the rhizomatic qualities that symbolize the constant "middle" (Deleuze & Guattari, 1983b, p. 47). My existence in the forward slash embodies the constant in-between that has no beginning and no end: My practitioner self is denoted in a/r/t, and my artist, researcher, teacher selves are part of the rest of me. Rhizomatic symbolism is also echoed in the map-like arrangement of my work as a thematic curation that gives the reader/audience multiple entry points into the research (Deleuze & Guattari, 1987). This renders the research more accessible and open. The Deleuzeoguattarian rhizome also frames my relationality vis-à-vis the theoretical and methodological frameworks. Throughout this body of work, I engage with living inquiry to mirror the a/r/tographic premise of interconnectedness and relationality (Irwin, 2013; Irwin et al., 2006). The interweaving of theory and practice translates to "theorizing through inquiry, a process that involves an evolution of questions" (Irwin et al., 2006, p. 71). This affords a space to venture beyond trying to answer

fixed questions, and instead allow the questions to transpire through practice.

Excess manifests itself in the exploration of contiguity through the a/r/tographic concept of becoming. While establishing my liminal relationality to museums in order to further understand my situatedness in this research, I revisit my earlier perception as a museum visitor in contrast to my later positionality as a museum practitioner. Through understanding my relationality, I move from being an on-looker to becoming an in-looker. My becoming comes with the burden of demystification, where my earlier adoration of the museum establishment morphs into informed criticism that acknowledges its shortcomings while believing in its potential. In causal reaction, delving into my subjective relationality to museums over the course of passing time triggers me to think about the museum's universal temporal liminality. In return, thinking about temporal liminality has sparked a curiosity towards understanding the museum's spatial contiguity. This highlights how a/r/tography's embracing of the personal in inquiry becomes an attempt at the global in research.

Within the rendering of excess, contiguity manifests itself through the liminality of excess to the remaining five renderings. Excess happens when engaging with openings, living inquiry, metaphor and metonymy, contiguity, and reverberations. I would even go as far as stating that excess manifests itself contiguously to engaging with excess; it is a rendering that constantly embraces the marginal in, with, and along the research journey. Also, excess is always lingering in the liminal of practicing a/r/tographically, it is always present in the in-betweens of the artist, researcher, teacher as well as art and graph. Moreover, metaphor is reflected in the construct of excess through the symbolism of the "outlier" as an embodiment of the outlier nature of excess (Siegesmund, 2013, p. 142), whereas metonymy is suggested through the word for word

replacement of the outlier and excess. Also, living inquiry is denoted through acknowledging the presence of excess because without engaging in living inquiry there would be no excess. Correspondingly, indulging in excess is a form of practicing living inquiry because they are causally interrelated. Finally, reverberations are the undercurrent of excess, since acknowledging excess allows for emergent meanings to reverberate through a fresh lens.

Theoretical Understandings

Through delving into a living inquiry about the theoretical underpinnings that guide museum-based learning and experiences, I highlighted that museums are in a state of constant change. I noted that, until recently, museums have been drastically guided by the archaic "cabinets of curiosity" approach, which posits object-oriented exhibits that rely on the intrinsic power of objects to shape visitor experiences (Edson & Dean, 1994; Hooper-Greenhill, 1992). Fortunately, with the rise of constructivism, museums have slowly started to consider themselves places of abstract concepts and individual meaning-making (Hein, 1995b). I established that museums have been gradually shifting from static and structured subject-specific one size fits all practices to active and engaging museological experiences that account for the individuality of the museumgoer. Consequently, the human element has become central to the museum experience; museums have started building interest in how visitors perceive them, what they learn, and most importantly how they learn.

However, it is important to recall that the attempts to define learning are wide-ranging and "lack both a clear focus and a well-formulated theoretical underpinning" (Falk & Dierking, 1995, p. 9). Researchers conducted extensive investigations to understand the nature of learning in museums. These investigations, amongst many others, produced a large body of work from

which I could deduct the following consistencies: a) There is a consensus that museological learning is rooted in constructivism (Hein, 1991, 1998; Hooper-Greenhill, 1999); b) the museum experience is paramount to learning (Falk & Dierking, 1992, 2013; Hein, 2006c); c) learning in museums is broad and comprehensive (Falk & Dierking, 2000; Griffin, 1999; Hooper-Greenhill & Moussouri, 2001); and d) there is no consensus as to which theoretical paradigm guides learning in museum institutions (Falk & Dierking, 1995). The latter deduction exposes the necessity to re-visit the understandings of museological learning and experiences in order to further substantiate the museum establishment's engagement in becoming more relevant.

As noted earlier in the study, a close examination of Dewey's body of work in relation to museum studies revealed the following understandings: a) Museological learning is rooted in constructivism, while Dewey's philosophies are the foundation for constructivism; b) The museum experience is paramount to learning, and Dewey's theorizing centres learning around experiences; and c) Learning in museums is broad and comprehensive, and Dewey describes learning as a broad and complex occurrence. These understandings helped zone in on Dewey's experience-centric approach to learning as the most suitable to capture the essence of museum-based learning philosophies. As a result, the following contributions manifested themselves: a) The experience-centric learning approach, which carves a dedicated space for Dewey's theorizing on learning and experiences; b) the Experience Factors Model (EFM), which expands the contextual understanding of museum experiences; and, c) the Experience-centric Learning Web (ELW), which provides a network-based interpretation of learning processes in museums.

Re-examining experience-centric learning. As I previously established in my exploration of the theoretical framework of museum-based learning, I primarily discovered

strong parallels between John Dewey's theorizing about experiences and the constructivist approach adopted in museum literature (Hein, 1995b, 2006a). These similarities were expected considering that the museological constructivist framework is mainly founded on Dewey's philosophical writings about learning and experience (Hein, 1995b, 2012). The philosophical underpinnings of Dewey's theorizing postulate that learning always takes place in correlation with experiences (Dewey, 1910, 1938, 1958). Comparably, in museum studies, the theoretical premise of constructivism emphasizes the centrality of experiences to learning (Falk, 1999; Hein, 1995b). However, there is no specific term that communicates Dewey's direct contribution to this experience-centred approach within the constructivist tradition. To overcome this gap, I opted to use the expression 'experience-centric' in reference to Dewey's specific theorizing about learning and experience.

Through distinctively attributing the term "experience-centric learning" to Dewey's theorizing about learning and experiences, I carved a niche for his work within the constructivist tradition. It reiterates Dewey's theorizing about the connection between learning and experience as the "only permanent frame of reference" (Dewey, 1938, p. 25). It also highlights his contributions to theorizing in museums and brings "clear focus" to the wide-ranging spectrum of paradigms within museum studies literature (Falk & Dierking, 1995, p. 9). Furthermore, it overcomes the unclarity that comes along with employing the terms experiential and experience-based interchangeably to describe learning that centres around experiences. From a methodological perspective, suggesting the term "experience-centric learning" highlights Dewey's liminality to the constructivist epistemology. By attending to the contiguity of Dewey's theorizing, I rattle the in-betweens of constructivist approaches to uncover new understandings of his contributions to the paradigm. Also, in carving a space for experience-centric learning, I

create openings to engage with museological learning and experiences from a Deweyan approach. This unfolds possibilities to delve into experience-centric living inquires that might reverberate into newer understandings of the relationality of learning and experiences in museums.

The limitations of using the term experience-centric lie in the fact that it is founded on the constructivist framework which museum practitioners struggle to identify in the first place (Schauble et al., 2002). As such, the term bears the weight of vagueness that might further contribute to the lack of "a clear focus and a well-formulated theoretical underpinning" that guides learning in museums (Falk & Dierking, 1995, p. 9). Moreover, experience-centric learning is a term that I devised to overcome the limitations of the theoretical and procedural understandings of experience-centred learning in relation to the confines of David Kolb's (1984/2015) experiential learning theory (ELT). On a philosophical level, it allows for distinct differentiations between a Deweyan-centric constructivist approach to learning through experience versus other constructivist paradigms, as well as the Kolbian-centric approach. The term experience-centric is also meant to revive and reposition Dewey's work in relation to museum studies theorizing. However, experience-centric learning is clearly in its premature stages; it is neither established nor widely employed. It currently continues to linger in the liminal of museum studies theorizing about learning and experiences. It is not a published concept, and therefore still dwelling in the in-betweens of inquiry and dissemination.

Re-visiting the Experience Factors Model (EFM). The Experience Factors Model (EFM) expanded on the understandings of museum experiences as pioneered by the work of John Falk and Lynn Dierking (1992, 2013). It primarily builds on the qualities of the Interactive

Experience Model (Falk & Dierking, 1992) and the characteristics of the Contextual Model (Falk & Dierking, 2000). The first model identifies three contexts that influence the museum experience: the personal, the social, and the physical, whereas the latter model redefines the social context as the socio-cultural context, which accounts for both social and cultural factors in shaping the museum experience, as well as incorporates the factor of time. I based the EFM on Falk and Dierking's (1992, 2013) models because they successfully portray the intricacies of museum experiences. However, I developed the EFM to span beyond their classifications of experience factors, because their models do not account for current changes in museological settings. To offer a more contemporary and comprehensive interpretation of museum experience factors, I suggested expanding the definitions beyond the personal, physical, sociocultural contexts, to also include environmental, virtual, and meta factors.

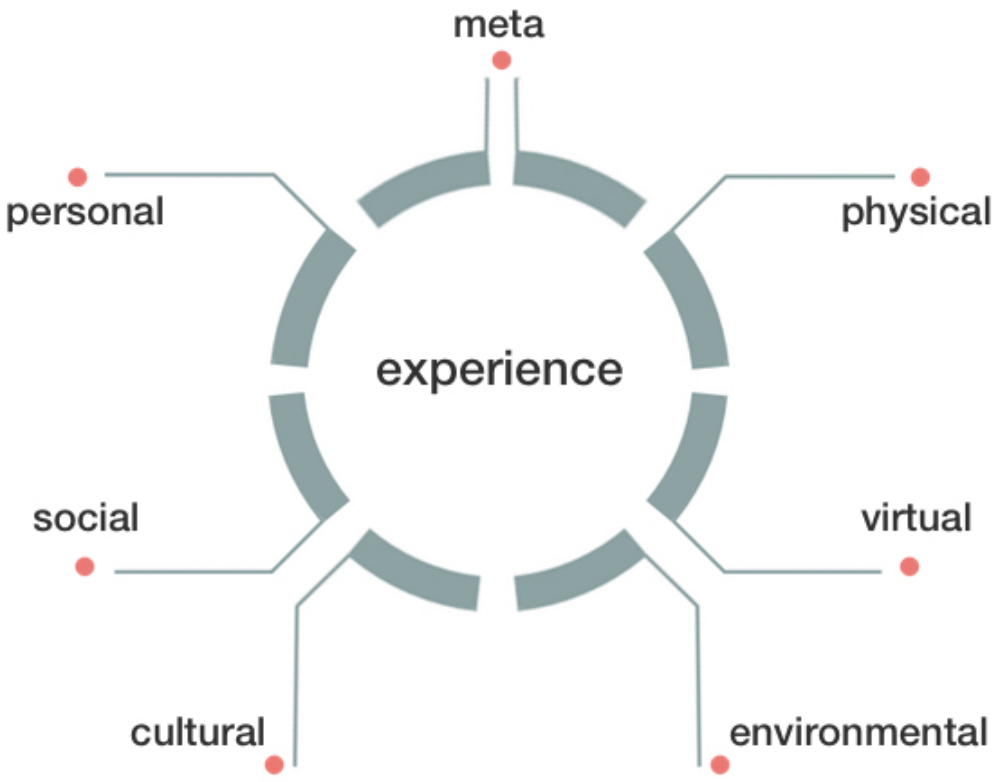


Figure 6.1. Experience Factors Model (EFM)

The EFM distinguishes between physical, environmental, and virtual factors because of their categorical differences. The physical factor accounts for everything that has a physical presence, which could manifest itself in the physical space, objects, furniture, panels, and all other design elements that adorn the museum premises. The environmental factor takes into consideration the overall environmental conditions that surround the museumgoer, whether the museum interaction is physical or virtual. These environmental conditions could manifest themselves in sound, feel, scent, temperature, comfort level, and sense of familiarity. The virtual factor relates to any online activity or virtual reality experience. It encompasses the nature of the user experience, quality of the interface, and level of interaction and impressiveness.

Despite the distinct qualities of the aforementioned expansions, one could argue that they are inherently implied in Falk and Dierking's (1992, 2013) mention of the physical factor. This argument could mainly be based on the interpretation of the physical as the bodily, which intrinsically assumes the physical, environmental, and virtual elements. A bodily factor suggests the perception of the surroundings and the internalization of the physical, environmental, and virtual peculiarities. Hence, a categorical distinction within the EFM is superfluous and unwarranted. However, as previously explained, Falk and Dierking's (1992, 2013) models attribute the physical factor to the context of space orientation, label reading, object satiation, and effect of architecture on museum fatigue (see exploration 2 for more details). Therefore, a clear distinction between the physical, environmental, and virtual factor offer a more comprehensive and open understanding of the museum experience. Moreover, understanding the physical and bodily creates a strong overlap with the personal factor, since it accounts for the individual internalizations of experiences.

The addition of meta is founded on Dewey's (1910) theorizing about experiences being continuous acts that involve "sequence" as well as "consequence" (p. 2). Meta embodies the internalized conversations, ideas, reflections, thoughts, or feelings, a visitor could develop as a result of the museum experience. In its most abstract sense, *meta* is the experience of the experience, the infinite loop of experiencing through and in an experience. Meta also echoes the concept of a/r/tographic excess because it reflects the constant state of "coming to becoming" (Irwin, 2018, p. 195). Through a/r/tography we are continually "coming into some sort of new being" (Carter, 2014, p. 23), where every happening continues to shape and re-shape us in relation to research and life. Similarly, in meta, reflecting on an experience creates new experiences, which in return alters the perspective through which the initial experience is viewed. It represents the ever-changing nature of an experience through reflectively engaging with an experience. Meta is quintessentially becoming.

In re-exploring my expansion on Falk and Dierking's (1992, 2013) models, I realize that I dismissed the factor of time from my Experience Factors Model (EFM). At the time of EFM's conception, I did not consider time to be a determining factor since it universally governs our everydayness. In retrospect, I should have at least explained why I am excluding time from my model. However, in re-considering my decision to exclude time in light of my newfound understandings of temporal contiguity, I can easily state that I gained new insight into my choice. Time is constantly contiguous to our existence, it is a factor that is eternally liminal to all experience factors. The entirety of our actions and interactions is framed in and through time. Therefore, the presence of time is denoted in the EFM, since it is a model that addresses experiences, which are in return continually contiguous to time. As such, the presence of time

does not need to be included as a distinct factor, since it is effectively a common denominator that lingers in the in-betweens of the experience factors.

While re-visiting the EFM, I also recognize that I mentioned that its visual representation is motivated by the Deleuzeoguattarian philosophy of rhizomatic relations (Deleuze & Guattari, 1983a, 1987). My conception of the EFM is facilitated by engaging in living inquiry, where I have been unconsciously creating method and theory links throughout. I also mentioned that the openings in the EFM circle metaphorically represent the accessibility of connectedness as inherent in rhizomes. In hindsight, I see the EFM more specifically as the rhizomatic constant "middle" (Deleuze & Guattari, 1983b, p. 47), where it is always connected or connecting to something. Here, the renderings' interplay strongly reverberates through capitalizing on the power of openings, as well as metaphor, to illustrate the intricacy of experiences. The EFM symbolically presents the museum experience as the middle of a complex body of intertwined factors, which in return echoes a/r/tography's centrality to the renderings' interconnectedness.

Re-examining the Experience-centric Learning Web (ELW). Inspired by the emergent understandings from inquiring into Dewey's theorizing about learning and experiences, I developed the experience learning web (ELW) in an effort to: a) capture the multidimensional qualities of learning processes in museums, and b) offset the overall scarcity of learning models that "encompass the richness of experience[s] occurring within museums" (Dierking, Ellenbogen, & Falk, 2004, p. 99).

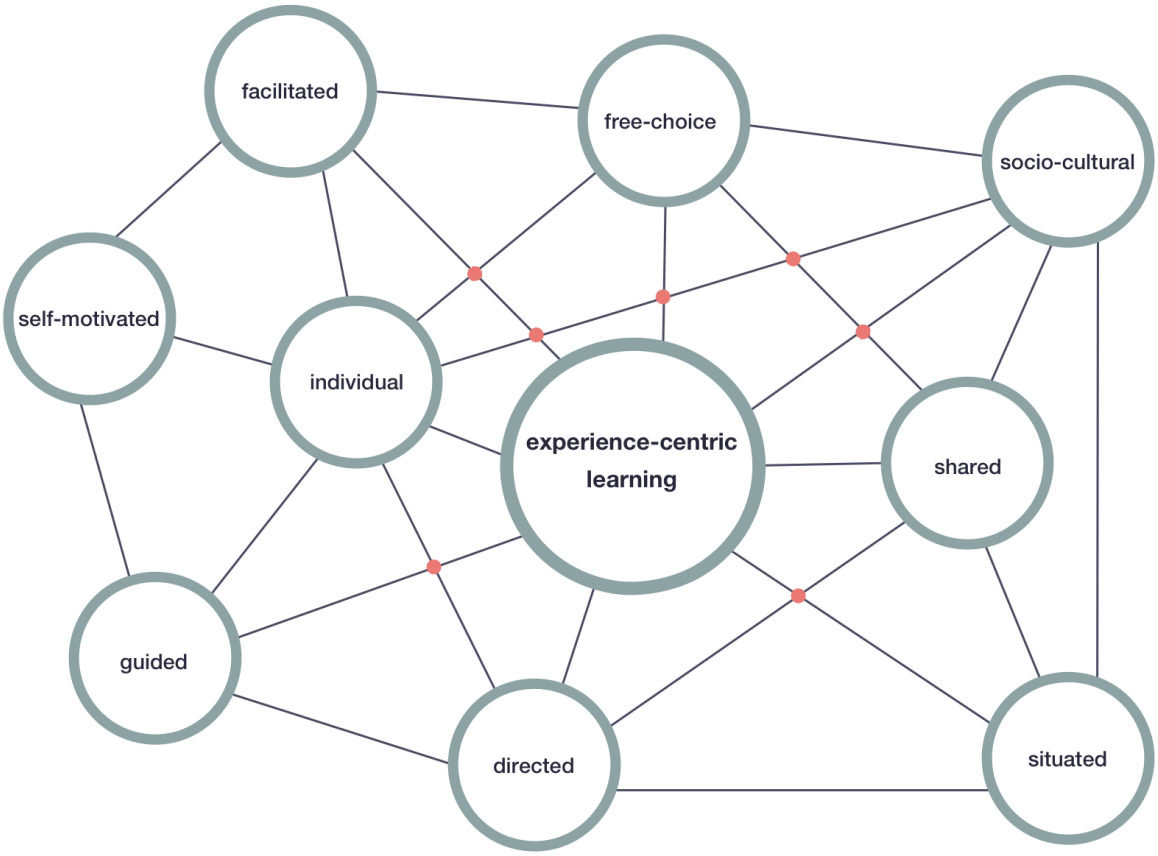


Figure 6.2. Experience-centric Learning Web (ELW)

Existing learning models exhibited major shortcomings in capturing the museum's fluidity and openness, because they were mostly developed to address learning in general. There is a distinct gap in models specifically targeting museum experiences, which leads museum literature to predominantly borrow models from theorists who adopt constructivist or Deweyan approaches but do not specifically research museums. For one, Kolb (1984/2015) rendered a cyclical learning model, which he based on Lewin's four-stage cyclical experiential learning model. McCarthy (1983) also adopted Kolb's cyclical approach in her 4MAT system, which attempted to explain different learning styles. Cyclical representations of learning are closed and do not allow for different learning styles to materialize simultaneously. Also, Jerome Bruner

(1960) embraced a spiral approach to capture the process of learning. Although a spiral rendering opens up the cycle and allows for infinite stages to develop, it does not account for concurrency. It also denotes hierarchy due to the innate design of spiral structures forming one ring above the other.

The most relevant museum-based learning model is Hein's (2004) interpretation of Dewey's theorizing about learning. As a museum studies researcher, Hein understood the intricacies of museological learning and experience, and thus significantly contributed to the discourse by including reflection in his model. However, his learning process representation is sequential, which indicates successive causality. This does not leave room for random connectivity which is most likely to occur during museum experiences. So, in creating the ELW I attempted to establish a model that corresponds to contemporary museum understandings. As such, I dismissed all cyclical and spiral interpretations of learning and adopted an approach that emphasized the complexity of museum learning. This approach founded on George Hein's (1998) hypothesis that "learning involves access to a network" (p. 89), which draws upon constructivism's open, differentiated, and social understanding of learning. In adopting Hein's network concept, the ELW represents experience-centric learning as a web of interrelated modes of learning. The web-like rendering contested compartmentalized, hierarchical, and linear understandings of museum learning. In retrospect, the ELW is also an homage to Hein's contributions to the field of museum studies. His work has been paramount in shaping my understandings of learning and experiences in museums.

Looking at the experience learning web (ELW) from an a/r/tographic lens, I see how the rendering of contiguity resonates in the liminality of Dewey's and Hein's work to my living

inquiry into learning in museums. Their theorizing continually lingered in the in-betweens of my thinking about a model that captures the complexity of learning in museums. I have only come to realize that I am not dismissing Hein's (2004) interpretation of Dewey's theorizing, but am expanding on his work from 1998 and 2004 to come about a newfound model for museological learning processes. The ELW also exhibits metaphoric and metonymic characteristics through the symbolic qualities inherent in the web-like representation. Within the understanding of the web, the ELW's rendering refutes hierarchy and accounts for the array of learning concepts that guide experiences in a museum setting. Moreover, openings echo in the ELW because it presents endless possibilities to understanding learning in museums.

Through re-visiting the ELW, I am cognizant of some of the visual rendering shortcomings. First, the arrangement of the different lines connecting the learning processes creates a border-like manifestation that gives the impression that the network is closed-in on itself. Second, the circular representation of each of the individual processes presents them as inaccessible and non-penetrable. Theoretically, placing experience-centric learning at the centre of the web, makes the model carry the burden of the limitations associated with my theorizing about experience-centric learning. Also, the ELW lists a select set of learning processes, suggesting that these are the only learning processes that take place in a museum setting. Their arrangement (established in their proximity), although random, equally implies that there is an established mandate to their relationships. Furthermore, calling the model a web instead of a network adds a metaphoric complexity that distances the model from its original conceptual construct. Thus, the ELW could escape direct relationality to the network concept, and in return move into its liminal contiguity.

Interplay of A/r/tography and Museums

The premise of interconnectedness and intersectionality does not only manifest itself among the six renderings, but also echoes in the interplay of a/r/tography and museums. Throughout this study, my a/r/tographic practice has been integral to uncovering meanings about museum-based learning and experiences. I particularly chose a/r/tography because of its promise to "make sense and create meaning out of difficult and complex questions that cannot be answered in straightforward or linear tellings" (Irwin & Springgay, 2008, p. 902). Considering the intricacy of the interrelatedness of the contextual framework of museological experiences and the theoretical aspects of learning within the museum (Falk, 1999; Falk & Dierking, 2013), my research premise exhibited the potential of becoming composite and multilayered. Hereafter, I share the aligning manifestations of a/r/tography and museums as well as the cross-fertilizations of theory and method in order to feature new understandings of the significance of a/r/tography to museum studies research.

Philosophical relationality. In re-exploring the philosophical relationality, I highlight how a/r/tography resonates in the constructivist epistemology that guides learning in museums. A/r/tography founds on the centrality of experience in shaping research and engaging with inquiry (Carter et al., 2011; Leggo et al., 2011). Equally, constructivism bases its premise on the importance of experiences in shaping learning (Hein, 1991; Hooper-Greenhill, 1997). Moreover, a/r/tography places strong emphasis on meaning-making (Irwin & Springgay, 2008; La Jevic & Springgay, 2008; Pinar, 2004; Springgay et al., 2005), whereas constructivism is centred around learners creating their own meaning-making (Hein, 1998, 1999). Also, Dewey's work laid the a/r/tographic foundations for understanding the importance of experiences,

aesthetic experiences, and the process of meaning-making while conducting research (Carter, 2015; Naths, 2004; Siegesmund, 2013). Respectively, in museum studies, the constructivist framework builds on Deweyan philosophies that centre learning around experiences. Additionally, a/r/tography as a method innately denotes a non-formulaic and fluid nature (Irwin, 2004; Springgay et al., 2005). This is similarly complimented by constructivism's fragmented and non-linear processes of learning in museums (J. Griffin, 1999). As such, both a/r/tography and constructivism metaphorically and metonymically embody fluidity, contiguity, ambiguity, and openness.

Museums as metaphors. Through engaging with a/r/tographic metaphor and metonymy I have come to realize that a/r/tography not only complements museum theory, but also reverberates in the museum existence. Museums embody metaphoric and metonymic nuances through their physical and conceptual construct, symbolically representing our tangible and intangible past, present, and future (Pearce, 1994b; Semedo, 2012). Collections are metaphoric and metonymic statements about concepts, peoples, times, or places. Within a museum collection, an object is contextualized to signify a complex set of physical, spatial, temporal, emotional, and abstract elements (Hodder, 1994; Pearce, 1992, 1994a, 1995; Wehner, 2012). Symbolism also carries through in museum architecture, which "stands metaphorically as well as physically for the structures that define the boundaries between 'inside' and 'outside'" (Lumley, 1988, p. 8). Once inside a museum, the nature of the structure equally makes a distinct emblematic impression on the visitor: A palatial structure is different from an open-air heritage site. Beyond physicality, every museum experience leaves a unique symbolic imprint on the visitor in the ways they engage with it and make meaning of it.

Contiguity of/in museums. Beyond their metaphoric and metonymic qualities, museums also exhibit strong reverberations of contiguity, especially temporal and spatial contiguity. Within the context of temporal contiguity, time governs the philosophical construct of the museum establishment and prescribes its operational strategies. museums are conceptually meeting points of the past, present, and future; they collect, preserve, and display fragments of the human existence to help us develop a sense of identity and belonging (Golding, 2016; McLean, 2008; Pearce, 1994b). Museums also manifest temporality through curatorial choices and display arrangements. On the one hand, chronological displays demonstrate a curatorial choice that stresses exhibit temporal linearity. This time contiguous display maps out the visitor's path and follows a sequential temporal logic. Although temporal linearity achieves great chronological relationality, it denies visitors the agency to decide on their route choices. Curatorial linearity denotes visitor passiveness (Hooper-Greenhill, 1994), assuming that the message will get lost on the audience unless guided through a specific route. On the other hand, the use of descriptive text in museums creates chronological situatedness that assists the visitor in figuring out time relationality within an exhibit (Ravelli, 2006).

Moreover, museums embody temporal contiguity through the perception of time in museum experiences, the quality of time in a museum encounter, as well as the availability and allocation of time to visit a museum. In terms of perception, engaging museum visits give time the appearance of fleeting, whereas boring visits render time as dragging. In relation to quality, a visit's timing and context play a major role in characteristically shaping the museum experience. For example, a school trip and a family outing to the same museum will result in two unique experiences. As for the availability and allocation of time, a visit's duration and frequency dictates the nature of the museum experience in terms of depth and breadth. A tourist wants to go

to the museum because they might not get a chance to do so again. Then, once inside, they tend to "systematically work their way through the museum" to experience as much as they can (Bicknell & Mann, 1993, p. 146), since they are usually pressed in time. In contrast, a local might keep postposing going to the museum because of its temporal contiguity, it is right there and will continue to be there. However, once they decide to go to a museum, they can afford to take their time knowing they could always come back at another time if they skip something.

Within the context of spatial contiguity, museums are physically liminal to our living spaces and virtually contiguous to our daily lives. Museums are physically manifested through their structures, which border our cities, neighbourhoods, or streets. Considering the element of physical presence, humans broadly live in bodily liminal proximity or distance to museums. In a virtual space, museums transcend physical distance and create proximal liminality by overcoming the need to be physically present in relation to a particular museum location. Virtual contiguity manifests itself in in the bordering of our everydayness, rendering museums noticeably closer and perpetually available. Within the conceptual makeup of museums, contiguity is portrayed through exhibiting the world in one place (Pearce, 1992). Museum exhibits create spatial contiguity between an object's source site and display location. They also afford visitors an opportunity to overcome distance by displaying remoteness in proximity. This sense of closeness is supplemented by the object placement within a space, as well we as the curatorial logic that governs an exhibit. In spatial contiguity text complements an exhibit's and object's situatedness in relation to space. It also helps situate the visitor in relation to the space by providing navigation tools, which helps create spatial familiarity and understanding.

Reverberating Meanings

Through exploring the interplay of renderings throughout the study, I have come to realize that if I draw a visual model to illustrate the renderings' intersectionality (see figure 6.3), I end up with a similar representation to the experience-centric web (ELW). This showcases how the network concept carries over from the theoretical to the methodological. The ELW conceptually renders experience-centric learning as a network of interrelated modes of learning, and visually highlights learning as a constant ebb and flow of processes and modes. It refutes hierarchy and accounts for the array of learning concepts that guide experiences in a museum setting. Similarly, a/r/tographic renderings are conceptually the interplay between theory, practice, and creative activity (Irwin & Springgay, 2008). A/r/tography is a methodological framework that correspondingly refutes linearity, compartmentalization, and hierarchy, and instead encourages fluidity, contiguity, ambiguity, and openness (Springgay et al., 2005).

Given the overlapping conceptual qualities of the ELW and the renderings' interplay, I visually adopt the network representation to illustrate the renderings' interplay web (RIW) (see figure 6.3). This exhibits the composite nature of the renderings' interconnectedness, since engaging with each one respectively denotes an interweaving of the other renderings within the fabric of the one. Even visually, this interweaving pattern comes to light through the interlacing of one connecting line in relation to the other. Renderings are essentially the threads that compose a/r/tographic fabrics. They are always contiguous to one another, and meanings keep lingering in the in-betweens of their intertwining.

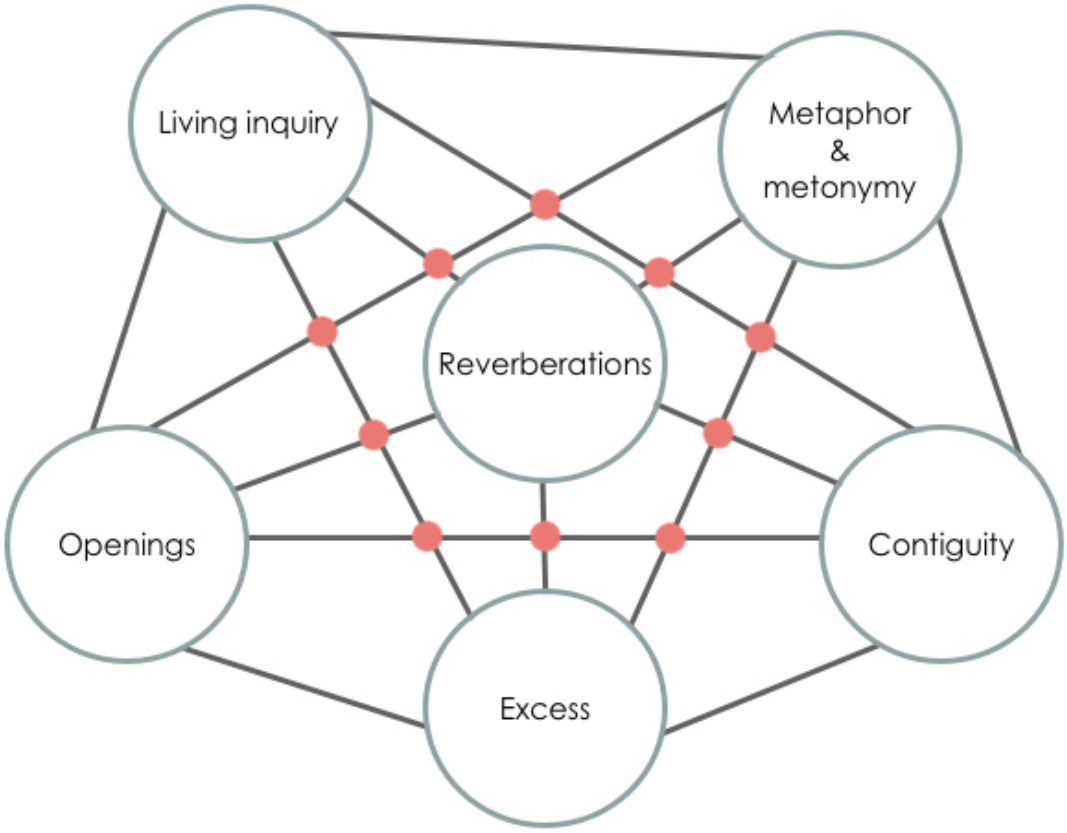


Figure 6.3. Renderings' interplay web (RIW)

While renderings are not meant to be considered as stand-alone conceptual components of a/r/tography (Springgay et al., 2005), separately delving into each rendering proved to be successful in jumpstarting a thematic exploration pertaining to experiences in and with museums. My careful attending to each rendering showcases how this process of distinct consideration highlights the interrelatedness and intersectionality of all a/r/tographic renderings. As previously stated, my separate attending does not deny or nullify the interconnectedness and fluidity of the renderings, but rather brings each of them to the spotlight. Also, through this detailed and meticulous attending to each of the six renderings, I filled the "significant gap" resulting from researchers predominantly engaging with living inquiry and metaphor (excluding metonymy) as manifestations of their a/r/tographic attempts (Sinner, 2017, p. 46). I demonstrated how

acknowledging the conceptual makeup of a/r/tography does provide a multimodal approach that allows for new meanings to emerge. As Anita Sinner (2017) pointed out, if researchers continue to "moderately" take up openings and only provide "courtesy reference to excess, contiguity, metonym and reverberations", then this "raises questions as to the function of renderings and what renderings will continue to contribute to a/r/tography in the future" (p. 46). By giving each rendering its weight within the inquiry process, I pay homage to the original conceptual makeup of a/r/tography.

Theoretically, I carved a niche for Dewey's work within the constructivist tradition through distinctively attributing the term "experience-centric learning" to his theorizing about learning and experiences. This highlights his contributions to theorizing in museums and brings clarity to the paradigm ambiguity within museum studies literature. I expanded on Falk and Dierking's (1992, 2000) Interactive Experience Model and Contextual Model by introducing the Experience Factors Model (EFM). I also presented the Experience-centric Learning Web (ELW) to capture the complexity of learning processes in museums. Furthermore, I re-established the complementing relationality of a/r/tography as a method in framing museum studies research. And, I showcased how metaphor and metonymy, as well as contiguity, resonate in the museum existence.

Through delving into this re-exploration of emergent understandings, I have come to realize that my attempts to frame my understandings are not flawless. They occasionally exhibit lack of mastery, whereas other times they reflect redundancy. There is an apparent attribute of imperfection that lingers in the in-betweens of my work. However, it is precisely this imperfection that makes my new understandings relevant to my research because it reflects the

non-linear and non-formulaic nature of practicing a/r/tographically (Springgay et al., 2005). A/r/tography affords a space for chaos and confusion, since a/r/tographers do not seek master, but rather messiness, to achieve methodological rigour (Bickel et al., 2011). Hence, un-mastery along with its inherent quality of imperfection are an embodiment of a/r/tographic research. Correspondingly, imperfection is liminal to constructivist epistemology, where approaching research from a non-hierarchical constructivist lens means accepting that an answer keeps evolving (Hein, 1998), and therefore never assuming an absolute state of rightness. Moreover, accepting imperfection means embracing research humbleness as expressed in arts-based research endeavours (Barone, 2006b, 2008). As such, by embracing the limitations and shortcomings of my understandings, I distance myself from the notion of *absolute* knowledge and assume a stance in favour of *probable* knowledge. The prospect of probability creates newer openings to engage with my newfound understandings. Hence, my research necessarily dwells in a state of constant becoming.

Museological Resonance

After my aforementioned in-depth inquiries into my lived experiences of engaging with a/r/tographic renderings to explore understandings of museological learning and experiences, the following emergent understandings strongly continue to reverberate:

- Museums are in a state of constant change, where practices continue to shift from static and structured subject-specific arrangements to active and engaging visitor-centred experiences.
- Attempts to define learning in museums are wide-ranging and "lack both a clear focus and a well-formulated theoretical underpinning" (Falk & Dierking, 1995, p. 9).

- The emergence of 'experience-centric learning' highlights Dewey's specific theorizing about learning and experiences, since there is no specific term that communicates Dewey's direct contribution to the experience-centred approach within the constructivist tradition that governs museums.
- The creation of the Experience Factors Model (EFM) addresses the changing nature of museum experiences.
- The introduction of the Experience-centric Learning Web (ELW) captures the multifaceted qualities of learning processes in museums.
- A/r/tography corresponds to the constructivist epistemology that guides learning in museums.
- Museums embody metaphoric and metonymic attributes that complement the museum's existence as a representation of our lived experiences.
- Within the framework of temporal contiguity, time governs the philosophical construct of the museum and prescribes its operational strategies.
- Within the context of spatial contiguity, museums are physically liminal to our living spaces and virtually contiguous to our daily lives.

In moving forward, I explore the resonance of these emergent understandings to uncover what they mean in relation to the potential of museums. This is to further understand the prospect that lies in considering the reverberations of reverberations. It will focus on the niche of a/r/tographically framed museum-specific understandings in order to address the capacity of a/r/tography in uncovering new meanings for museological learning and experiences. In that respect, I pay particular attention to the interplay of newfound theoretical understandings and the premise of museum contiguity, as established through temporal and spatial liminality, to open

new avenues for understanding the potential of museums. I also attend to the ebb and flow between the freshly framed theory and the metaphoric and metonymic qualities of the museum to suggest new meanings to museum development. I a/r/tographically re-frame the understandings that have transpired from inquiring into museum learning and experiences in/with/through a/r/tography in order to further invite newer meanings to emerge.

By a/r/tographically re-visiting my findings that transpired by means of an a/r/tographic approach, I mirror the a/r/tographic notion of doubling. Doubling is embodied in the metaphoric and metonymic meanings embedded in a/r/tography, whether as a term or practice. It is important to recall that a/r/tography stands for the artist, researcher, and teacher identities and practices as well as for art and graph as method or practice. Beyond the latter, doubling is also the reverberations of reverberations, where the resonance of reverberations "makes them relational and active" (Irwin, 2008a, p. 28). Moreover, doubling linguistically materializes through word replication 'reverberations of reverberations', and conceptually occurs through the probability of changing meaning or loss of meaning (Irwin, 2004, 2017). By a/r/tographically re-exploring the emergent understandings, I am doubling the doubling because I am using the forward slash as well as art and text as means of meaning-making of the reverberations of reverberations. As such, the doubling of doubling emerges as a manifestation of the philosophical construct of a/r/tographic doubling. It also affords a new space for meaning-making because of the shared inherent potential for gaining "deeper insights" (Irwin, 2008a, p. 28). As mentioned above, a/r/tographic insights do not always constitute the gaining of meaning, they also afford the loss of meaning. So, in staying true to a/r/tography, I remain open to the possibility of the new, different, and unexpected and embrace the prospect of change, undoing, and loss.

Imagining the Museum

When I first embarked on this research journey, I expressed how I intended on partaking in an inquisitive and imaginative quest. According to Dewey (1934), "imagination enables new experiences to enter and connect with prior knowledge" (Bedford, 2014, p. 81). So, in the inquisitive part of my journey I lay the groundwork for the imaginative portion through opening ways of knowing in order to imagine new possibilities for the potential of museums. After all, "[e]mpiricism knows the past, but imagination anticipates and creates the future" (Poe & Davis, 2012, p. 277). And, since this segment of my journey provides prospects for the future, I use my emergent understandings as instigators to envision new avenues for museums to become more relevant. I harness the powers of a/r/tography as a method "embedded in imagination" to frame my imaginative endeavours (Springgay, 2008, p. 9). I take a cue from the interplay between a/r/tography and museums in order to uncover new understandings of the potential of museums.

My initial understanding of the potential of museums has been confined by my practice of outreach, where, as a museum practitioner, I am primarily concerned with delivering the museum experience to communities that could not afford to come to the museum. The inspiration for this research stemmed from my experimenting with the idea of creating a decentralized children's museum project that integrates itself into the community. I was triggered by the prospect of what might have been, since I never got to see Discoverama, Egypt's Children's museum, grow beyond the initial stages. I was also motivated by the possibility of model transferability or evolution within a Canadian context. Nonetheless, I have come to realize that Discoverama, as a decentralized model that creates satellite museum facilities, is heavily burdened by the labour-intensive and capital exhaustive natures of physical and virtual outreach.

This resource-demanding solution might pose serious risk to the sustainability, and thus longevity of the project. In retrospect, Discoverama's strength lies in sidelining the necessity of mega museum structures through positing outreach as the founding premise for new museum creations. However, the decentralized model means existing museums have to expand their operations to include satellite locations, and new museums have to struggle with the logistics of managing a multi-location establishment. Concerns about quality, as well as mission and vision coherency could start surfacing.

Through my substantial involvement in the Egyptian museum sector, I was invited to participate as a thought leader in *Reimagining Children's Museums*, a 3-year exploration project (2011-2013) of what it means to experience a children's museum in the 21st century. As part of the documentation process of the project, participants were asked to contribute in writing with their visions for children's museum experiences in the next ten or twenty years. At the time, my vision was limited by my experiences with Discoverama, which was founded on the idea that we need to start decentralizing museum experiences through creating satellite facilities in public spaces and communities. As such, we can move the museum spatial model "from an exclusive stand-alone space to an inclusive, collaborative public experience" (Rice Elman, 2012, p. 11). However, this vision remains burdened by all the limitations presented by the Discoverama model. Maybe, back then, my response could have been perceived as one of the "more provocative responses" (Rice Elman, 2012, p. 11), yet with emergent understandings from this research inquiry, I believe there is further imaginative and provocative potential for museum.

Potential of the in-betweens. Most museum efforts in respect to exploring the potential of change to achieve more relevance, focus on trying to give everyone a chance to interact with the material uniqueness of the museological experience. In that, museums attempt to replicate the museum experience outside of the museum's physical premises. But, what if we start embracing the contiguity of museums to our everydayness instead of occasionally introducing museological glimpses into our lives? Maybe the museum could start expanding its offsite micro-museological experiences by embracing its original existence as contiguous to our lives. Within the conceptual makeup of museums, contiguity is portrayed through exhibiting the world in one place (Pearce, 1992). This manifests itself as gathering fragments of the universal and displaying it in one location. So, can the museum reverse its contiguous conceptual premise and disperse symbolic fragments of its singular presence into the universal? In embracing contiguity, museums can continue operating where they are while perpetually existing in our liminal. The in-betweens of the museum's contiguous existence to our everydayness are buzzing with happenings that do not involve the museum. Thus, by tapping into the vibrancy of the in-betweens, the museum could reposition itself in the liminal and invigorate its relationality to our daily lives.

Moreover, museums are metaphoric and metonymic embodiments of our tangible and intangible past, present, and future (Pearce, 1994b; Semedo, 2012). Given the artificial setting of the museum, the curatorial practice heavily relies on the power of metaphor and metonymy to contextualize an object in order to signify a complex set of physical, spatial, temporal, emotional, and abstract elements (Hodder, 1994; Pearce, 1992, 1994a, 1995; Wehner, 2012). So, if museums embody metaphor and metonymy, then why can they not exist metaphorically and metonymically in the in-betweens? Apart from only manifesting themselves as tangible spaces or

superimposed museological experiences beyond their premises, they could also establish themselves nonliterally in the liminal. The symbolic existence could be encapsulated in the form of museological signifiers that reiterate the museum's symbolic existence beyond its walls. These symbolic encounters could eventually contribute to establishing the museum's relevance.

Also, museums are spaces "laden with associations" (Lumley, 1988, p. 8), which are individually internalized and interpreted by the visitor. Considering that visitors independently create associations beyond the museum's control, then what stops the museum from affording a symbolic existence that is open and porous? A figurative liminal existence could help reshape the museum-visitor constellation, since all encounters are beyond the museum's collection, programming, and thus context. Due to this major shift from concrete to suggestive museological experiences, the emergent visitor-museum relationship becomes susceptible to constant redefining. This way, museums would be offering audiences more agency in their interactions with museum experiences or suggestions of experiences.

In embracing the potential of the in-betweens, museums do not need to solely rely on downscaling and replicating the museum experience in public spaces to offer a gateway into the museum itself. Instead, museums can expand their efforts towards capitalizing on the contiguous outside space as an *openings* opportunity to the museum. In recognizing the power of rattling the in-betweens, the metaphoric and metonymic meeting points of museums and audiences become instigators that awaken the sedentary nature of the liminal. The 1930's Newark Museum director, Beatrice Winser (1937), expressed that we should aim to make the museum experience an "adventure" in order to maintain the interest of the learner (p. 656). Through all these emergent understandings of museum liminality, I imagine the prospect of turning the process of getting to

the museum into an adventure. Theoretically, this embodies the meta concept represented in the Experience Factors Model (EFM), where the tangible and intangible happenings frame the pre-, actual, and post-museum experience. Practically, this extends the museum experience beyond its physical manifestations. As such, awakening the liminality translates as the ongoing reverberations between museums and audiences.

A network of in-betweens. In considering the reverberations of the aforementioned imaginings of the in-betweens, I began thinking about musical reverberations and how they resonate through space. "When music is performed in a concert hall, a torrent of echoes from the various different surfaces in the room strikes the ear, producing the impression of space to the listener" (Moorer, 1979, p. 13). When I try to visualize how an echo bounces off different surfaces, I think of lines being drawn from one end of the room to the other creating a complicated web of lines that look like a network (similar to security systems consisting of laser beams networks). This reminded me of *Apparatus Florius*, an open-air light installation by the Belgian artist, Tom Dekyvere (see figure 6.4). His installation "structure symbolizes the instinctive flow of a plant, taking over the city in search of light" ("Apparatus Florius," 2018).

The flora-indicative symbolic meaning of Dekyvere's work got me thinking about the Deleuzeoguattarian metaphor of the rhizome which also renders a web-like presentation that connects one point to another without necessarily sharing the same features (Deleuze & Guattari, 1987). The prospect of connecting with something that might be the antithesis of the origin "puts into play very different regimes of signs and even states of non-signs" (Deleuze & Guattari, 1983b, p. 47). In creating these random and multifaceted connections, I started thinking about its resemblance to the complex and multilayered processes of learning experiences in museums.

Then, I realized that the rhizomatic metaphor resonates in the Experience-centric Learning Web (ELW). So, in thinking of the relationality of echo to music, my ideas kept bouncing off surfaces to create an impression of my research reverberations.

Figure 6.4. Apparatus Florius (2018) by Tom Dekyvere, Montreal, QC

In attempting to understand the potential of museums, I imagine that capitalizing on the power of in-betweens could help re-shape the museum existence. In the efforts to become more relevant, museums seek to reach out in order to reach in. This means that every attempt to become more relevant is motivated by the prospect of inviting audiences back into the museum. As such, I envision using the in-betweens of the museum and the audiences as instigators to initiate, revive, or expand on their existing relationality. Within the concept of spatial contiguity, the in-betweens are the physical and virtual spaces that exist between a museum and the population. These spatial in-betweens manifest themselves in the public landscapes of streets, schools, parks, universities, etc., as well as in the private settings of dwellings and work.

Creating a network that connects these in-betweens to the museum means rattling the liminality to allow new meanings to emerge. These new meanings encapsulate the ways in which audiences relate to museums through interacting with this newfound network of possibilities. Here, the public landscape is a focal tenet for creating physical and virtual connections with museums, while the private setting capitalizes on virtual connectivity. In both cases, the idea of the network of in-betweens captures the resonance of liminal interactions in order to spark the interest for experiencing more.

Now, in imagining how this network of in-betweens could manifest itself, I consider the relationality of music to echo, echo to bouncing off, bouncing off to lines, lines to intersectionality, intersectionality to network, network to art, art to rhizomes, rhizomes to maps, maps to ELW, and ELW to echo. Through this complex relational alignment, I discover that the ELW is a network that not only strongly echoes in museums, but also reverberates in art and nature. I also notice that the concept of the map is liminal to museums, art, and nature through

indicating their respective locations on visual representations of our surroundings. The ELW is equally contiguous to the map through their shared rhizomatic qualities of openness and multifaceted connectedness. So, if the ELW, art, nature, and museums are connected through the concept of the map, then the network of in-betweens could manifest itself in/on/through a map. Hence, I merge the network rendering of the ELW with a map of highlighted museological, recreational, and educational establishments to illustrate the intricate interconnectedness of museums and in-betweens.

To limit the logistical and financial burdens of traditional outreach programming, the network of in-betweens does not offer a museological experience in the in-betweens. Instead, the network of in-betweens uses instigators and prompts to initiate or revive interest in the museum. These manifest themselves as symbolic prompts that suggest the relevance of a museum's collection or programming to the liminal that exists beyond a museum experience. For example, supplementing a playground with an excavation kit to facilitate a quasi-archaeological experience, which might encourage the parents to pay a visit to the Montreal Museum of Archaeology and History. There is no physical programming associated with the kit, yet there could be a virtual supplement to the experience. Maybe the museum can use its existing online presence to suggest archaeological learning activities to be executed by the parents and children in the playground. The idea of the auxiliary kits, whether archaeological, scientific, literary, or artful, is meant to create a potential for establishing links with the museum without necessarily dictating them. In term of logistics, these kits are considered public property, and as such should be maintained and replenished by the city or local community. This releases the museum from the responsibility of having to supervise the logistics or cater to the finances of a satellite location.

Another example for prompts could be a simple sign or label that connects the museum's collection and programming with in-between things that correspond to select museum themes. Signage could be placed in public spaces, gardens, and parks to fashion links between the daily in-betweens and museums. For instance, in Montreal, a sign at the Parc La Fontaine pavilion can prompt the park's attendance or by passers to consider physically or virtually visiting the Canadian Centre for Architecture to discover more about the architectural features in the city. The instigators or prompts are meant to be cost-efficient and low maintenance. They serve as invitations into the physical and virtual museum presence rather than provide an offsite micro-experience of the museum.

My initial vision for the network of in-betweens is a multilayered and complex network of interconnectedness between museums, public spaces, and educational institutions. Signifiers are disseminated among the participating entities in the network in order to establish the contiguity of the museums to our surroundings. A family celebrating their child's birthday at the local garden might stumble upon a sign next to the playground highlighting that the McCord Museum has an extensive collection of children's toys. Two friends taking a walk through the Old Port might come across a sign that suggests visiting the Musée d'art contemporain de Montréal (MAC) to discover the city's contemporary in contrast to its ancient. However, before establishing connections with other establishments, museums should lead the initiative by creating an intra-museum network, where museums use their physical and virtual presence to create connections between their programming and collections and other museum's programming and collections. This way, museums would be exemplifying their non-competitiveness and complementary nature, as well as rattling their in-betweens to create more activity for the existences.

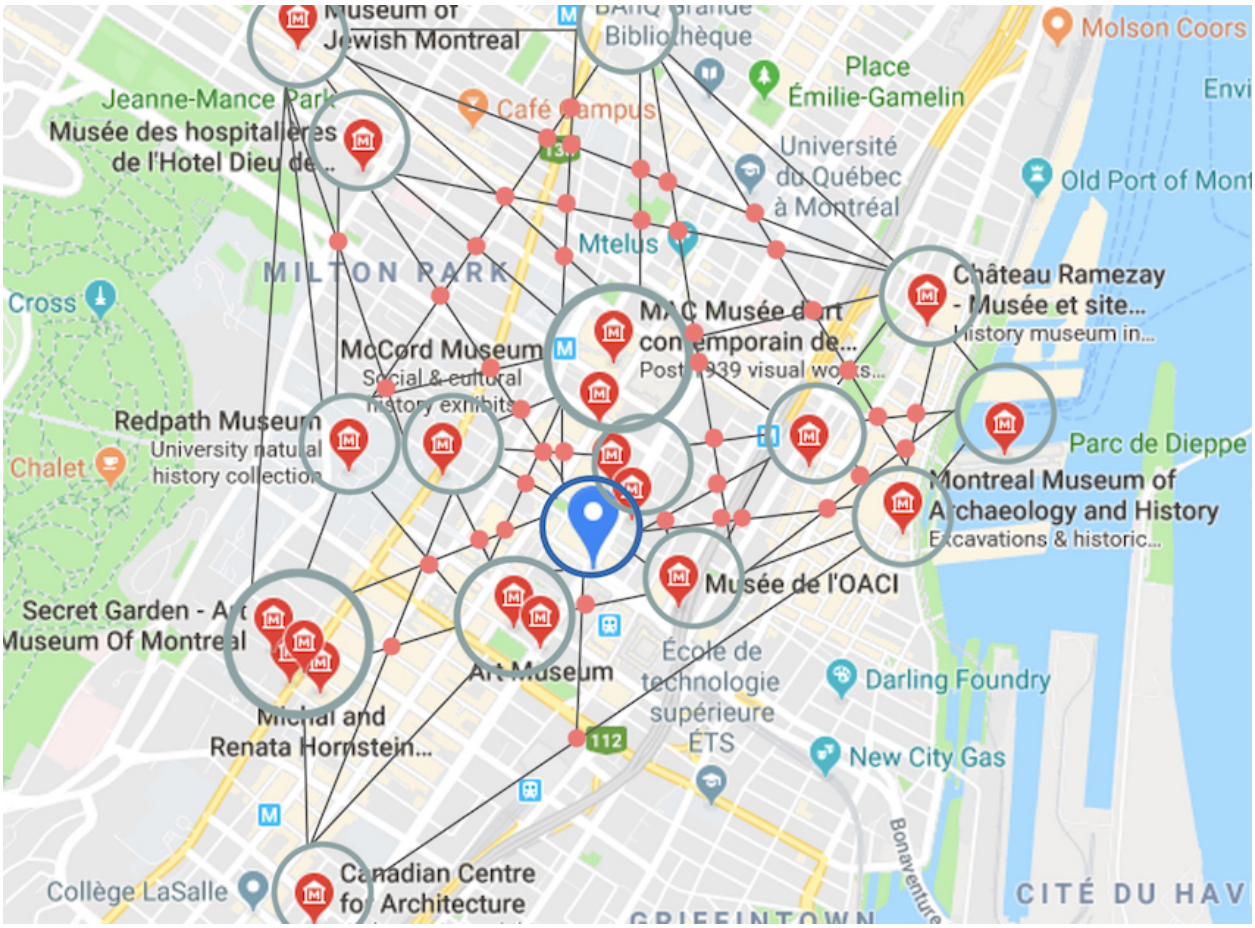


Figure 6.5. Museum network

I envision the first manifestation of the network of in-betweens in the intra-museum network, where museums use their physical and virtual presence to prompt users to seek museum experiences beyond their institutions. For example, if a visitor is at the Montreal Museum of Fine Arts, they could be prompted through signage to visit the Insectarium in order to find the insects that could be spotted in art pieces. Also, if a user is browsing the website of the Montreal Museum of Archaeology and History, they could be prompted to see wood samples in the Redpath Museum in order to create a link between building materials and their origins.

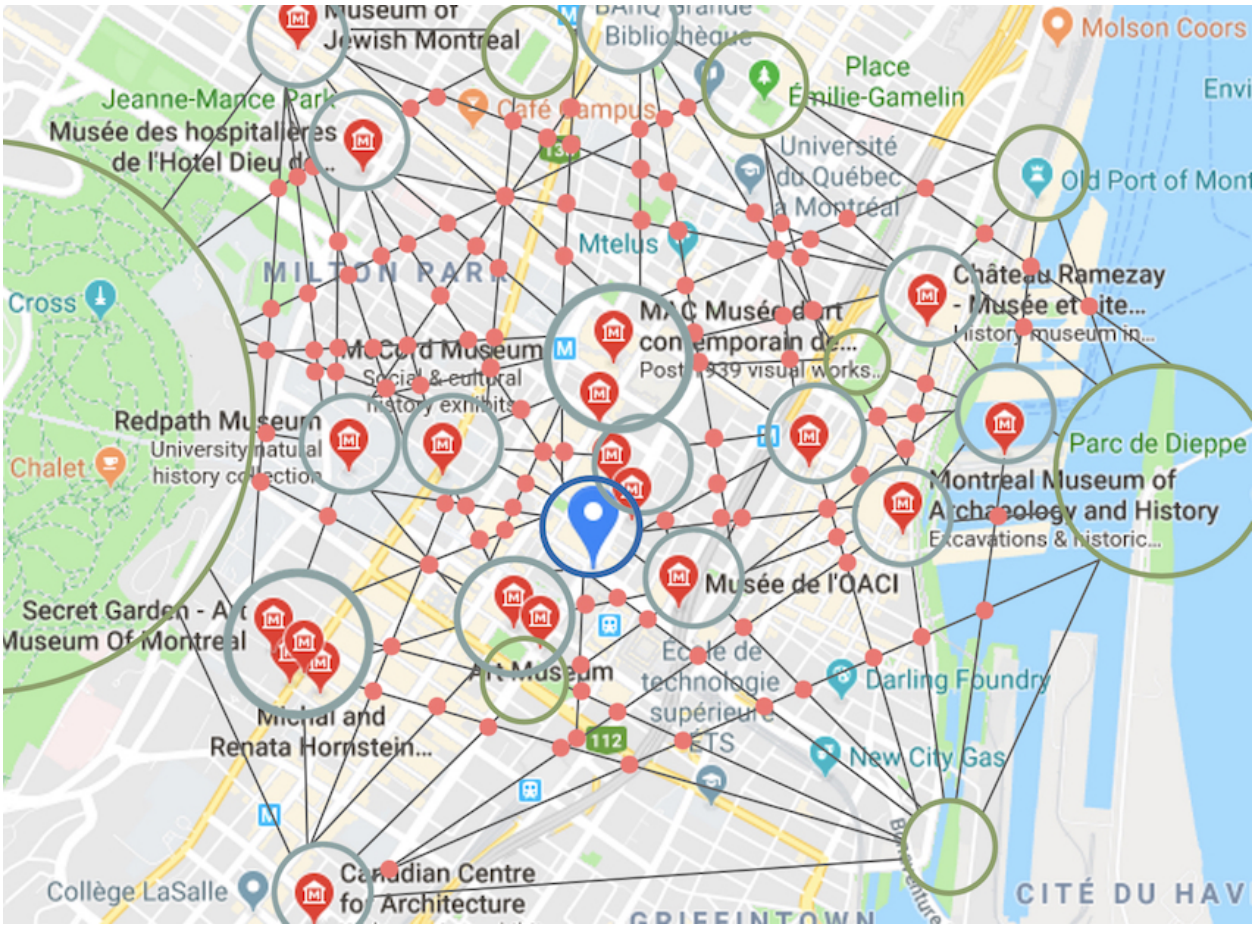


Figure 6.6. Museums and urban recreation network

The second layer is the network of museums and urban recreation locations, e.g. gardens and parks. This layer creates instigators in public areas to intrigue the public into physically or virtually engaging with the museum through linking their public experiences to the museum's collection or programming. For example, a tree in a small garden in a residential area would have a label asking the reader if they can guess what type of tree it is. Then it would provide a one-sentence description of the tree followed by a prompt encouraging the reader to visit the Montreal Science Centre, physically or virtually, to discover how trees breathe and grow. The prompts could also invite the public to consider multiple museums for varied discoveries.

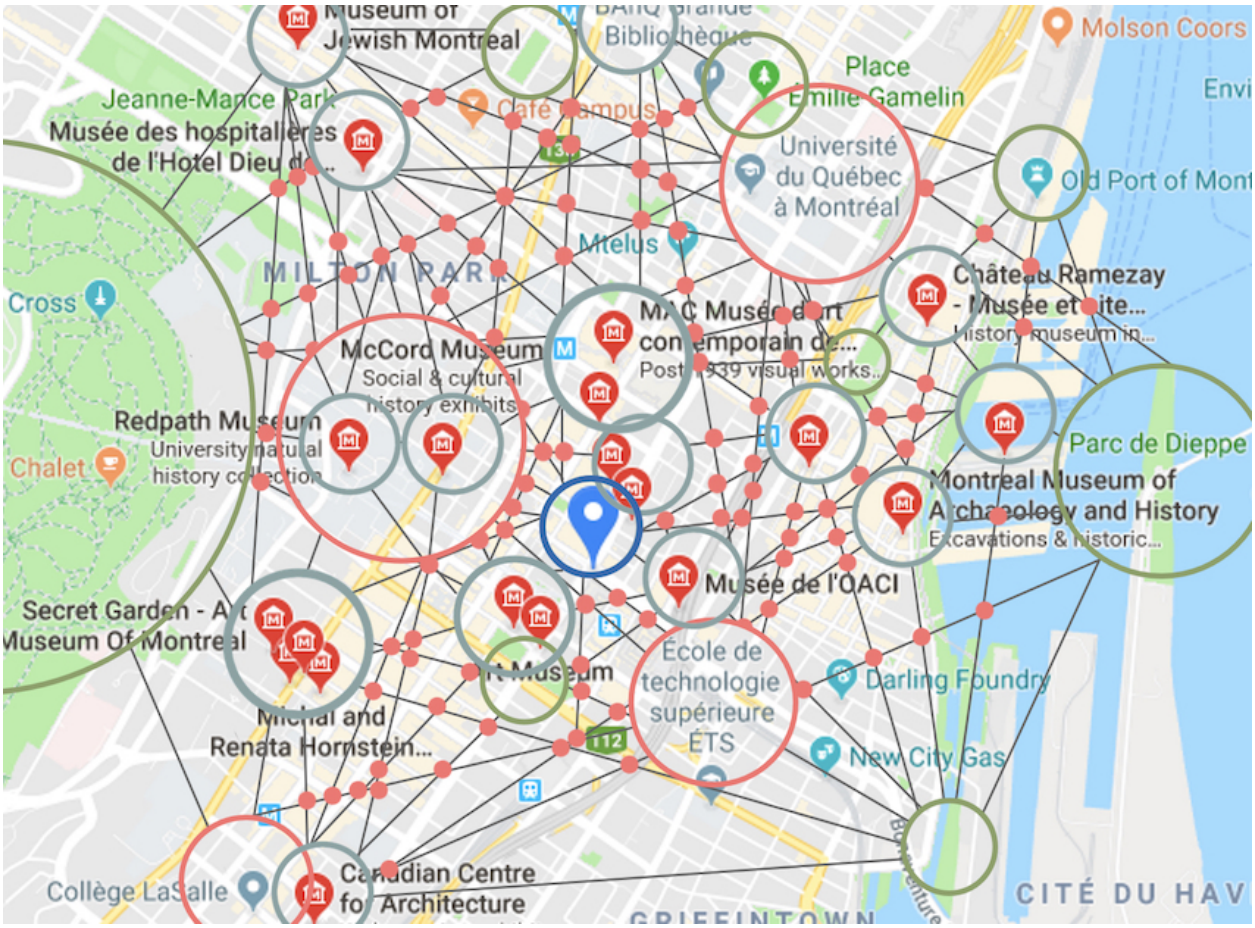


Figure 6.7. Museums, urban recreation, and educational institutions network

The third layer is the network of museums, urban recreation, and educational institutions, where a strong back and forth resonates throughout. This layer creates instigators in public areas and educational institutions to intrigue the public into physically or virtually engaging with the museum through linking their public experiences to the museum's collection or programming. It also creates prompts in museums to consider visiting educational institutions to discover ongoing research endeavours pertinent to exhibit themes. For example, the Musée des hospitalières d'Hôtel Dieu de Montréal could create prompts in their signage to encourage visitors to explore medical research being conducted at McGill University, while the inverse also applies.

In 2017, Parc Palomino-Brind'Amour underwent major renovations to make the park more family and user friendly. The city repaved the pathways, created more seating, added a bar sports corner, and upgraded the children's playground. This image is of the completed renovation work of the children's playground, where the theme seems to be inspired by earth play and accordingly has an earthy tone and the games are made out of natural materials (wood, ropes, etc.).

Figure 6.8. Parc Palomino-Brind'Amour

Building on the earth theme of the park design, I envision prompts that complement subject matter, feel, and look of nature. The first prompt could be a sandbox that simulates an excavating activity, that could link back to the Montreal Museum of Archaeology and History. This sandbox is supplemented with an excavation kit to facilitate a quasi-archaeological experience. The kit could include bone replicas, wood fragments, etc., and could be supplemented with online resources that engage the children and parents while they play. The sandbox addition is mobile and does not compromise the integrity of the space.

Figure 6.9. Prompt 1: Excavating activity in Parc Palomino-Brind'Amour

To continue the earth theme, I envision another prompt in the form of a water box or table that engages children to understand wind power. This activity could link back to the Montreal Science Centre, where children could further explore other scientific phenomena. This water table is supplemented with a wind turbine and rubber boats, which would have to be restocked by the parents who frequent the park. A water feature is not as flexible as a sandbox because it requires fixed plumbing for drainage and replenishing.

Figure 6.10. Prompt 2: Water table example in Parc Palomino-Brind'Amour

Also, in relation to the earth theme, a third possibility for a prompt is a pendulum experiment that could again link back to the Montreal Science Centre. The experiment consists of two balls connected with a rope, they could be placed on a dedicated bar or any of the existing suspended bars. Children would then pull on one side and release to see how many times they bounce back and forth before they stop. These additions are removable and do not compromise the integrity of the bars and allow for the park to retain its original function.

Figure 6.11. Prompt 3: Pendulum example in Parc Palomino-Brind'Amour

Achieving a curiocity or curiocité. The network of in-betweens is a largescale collaboration between several stakeholders. It is an enormous undertaking that requires the city housing the museum/s to be on board with the idea, since the museum/s will be placing prompts in public spaces. Logistically and financially, there are a few issues that need to be worked out with other partners and stakeholders: Are prompts going to be an expense added to the city's budget or the museum's budget? Who is responsible for producing the text on the prompts? Who has the final say regarding what gets placed where? Who oversees the network? The network also presents numerous opportunities for growth: Can the network afford organic expansion? Can signs be crowd-sourced? Can the network be supplemented with a dedicated online presence that is populated by all stakeholders, the public included? Can the network develop beyond the city to include the outskirts? Can the network expand from the local to the global?

A network of in-betweens is an imaginative musing based on the relationality of museums with our everydayness. Due to the fact that our daily experience changes, the museum is compelled to engage in simultaneous change to complement its contiguous relationality to our lives. This means that participating in the in-betweens has the potential of rendering museums in a constant state of change, and thus relevance. Also, to create a network of in-betweens means re-shaping the whole city into becoming a network of curiosity, where museums spark interest in exploring, experiencing, and knowing more. It would essentially channel our "lingering curiosity of being-in-the-world" (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006, p. 1237). Considering the resonance of curiosity, the network could ignite interest in re-exploring, re-experiencing, and re-knowing, and with that affording the population a state of perpetual not-knowing and continuous answer-seeking. This way, maybe one day, any city that is contiguous to a museum could become a *curiocity* or a *curiocité*.

Pause: Emergence

Curiosity

Complexity

Contiguity

Intersectionality

Figure 6.12. Pause: Emergence (Medium: Photography)

CONCLUSION

My Journey Thus Far

I embarked on an inquisitive and imaginative quest to understand museological learning and experiences in order to uncover new understandings of the potential of museums. Theoretically, I framed my inquiry through John Dewey's (1916, 1934, 1938) experience-centric learning theorizing, constructivism, and museum studies theories (Falk & Dierking, 1992; Hein, 1995b, 1998; Hooper-Greenhill, 1992). Methodologically, I employed a/r/tography because it seeks to broaden the understanding of life's complexity through acknowledging the spaces in-between, the interconnectedness, and the relational in our existence (Carter & Triggs, 2018; Springgay, Irwin, Leggo, et al., 2008). I embraced the a/r/tographic framework in my multiple roles as museum practitioner/artist/researcher/teacher, in my practice as embodied in theorizing as well as art-making and writing, and in my emergent understandings as manifested by my meaning-making. I used the six a/r/tographic renderings to respectively initiate an exploration of the conceptual, theoretical, methodological, contextual aspects of my study: I employed openings to embody the conceptual framework by laying the groundwork and rationale for the study. I engaged with living inquiry to explore the theoretical framework of museums, that is founded, just like living inquiry, on the centrality of experiences to meaning-making. I used metaphor and metonymy to frame my methodological understandings of a/r/tography as a method in relation to understanding learning and experiences in museums. I employed the capacity of contiguity in highlighting the spaces in-between to suggest my situatedness in and the contextualization of the study. I embraced the power of excess in affording a space for the outlier to express the marginal of my research quest. And, I delved into reverberations to capture the resonance of the earthquake caused by researching a/r/tographically in order to uncover new understandings of the potential of museums.

I specifically chose the a/r/tographic rendering of openings to guide the first exploration because its conceptual makeup is most suited to ignite curiosities and open pathways to engage with the research (Carter & Irwin, 2014). Openings presented a space for me to situate myself as a museum practitioner, artist, researcher, and teacher in relation to the study. It allowed me to model my research structure in the spirit of a museum exhibit, which bridges my professional and academic realms. It warranted me a chance to provide a clear breakdown of the anatomical makeup and organizational structure in order to ease the reader/audience through their navigation attempts. Openings gave me a taste of what it means to combine my artistic and textual endeavours in academic work, and accordingly encouraged me to continue exploring the powers of arts-based research. It also sparked the idea of sharing my intentions, which granted me the opportunity to stay open with myself and my reader/audience. I found an opening for my practice to become candid, refreshing, and enticing. It inspired me to carry on openly with my research quest. However, it must be noted that openings were only the beginning of the journey. They are not meant to offer straightforward insights and spark immediate realizations; they require extensive work to unravel what they have to offer. Accordingly, I follow the exploration of openings with a series of other explorations to further examine and study the opportunities that have emerged from taking advantage of openings.

Living inquiry afforded me a space to explore concepts that could not be approached in linear and compartmentalized ways (Siegesmund, 2013). This exploration proved to be complex and lengthy with lots of interrelated and interconnected elements: I could not have explored learning in museums without understanding the conceptual framework of museological experiences, and I could not have grasped the significance of museum-based experiences without understanding the framework of museological learning. Through engaging with living inquiry, I

discovered that the theoretical premise of constructivism governing museums builds on John Dewey's (1910, 1938, 1958) theorizing about the centrality of experiences to learning (Falk, 1999; Hein, 1995b). However, there was no specific attribution that communicates Dewey's direct contribution to this experience-centred approach within the constructivist tradition. To overcome this gap, I introduced the expression 'experience-centric' in reference to Dewey's specific theorizing about learning and experience. By understanding the centrality of experiences to learning in constructivist approaches, I was able to contribute to the conceptual framework of experiences through introducing the Experience Factors Model (EFM). The EFM expands on the understandings of museum experiences as pioneered by the work of John Falk and Lynn Dierking (1992, 2013) by adding environmental, virtual, and meta factors in considering an experience. Zoning in on Dewey's contributions to constructivism helped me develop the Experience-centric Learning Web (ELW). The ELW captures the multidimensional qualities of learning processes in museums, and offsets the overall scarcity of learning models that "encompass the richness of experience[s] occurring within museums" (Dierking, Ellenbogen, & Falk, 2004, p. 99).

Approaching this exploration through a metaphoric and metonymic lens allowed me to understand the power of "invoking the presence" of what is, what "is not", and also what "might become" (Springgay et al., 2005, p. 905). This power of metaphor and metonymy lies in the capacity of symbolism, which is evident in the assemblage of term a/r/tography, which carries two meanings: The first is portrayed through the forward slash representation of a/r/t, and the second meaning is denoted by the art and graph constellation. The forward slash is a metonym for the métissage of the artist, researcher, and teacher identities (Chambers et al., 2008; Irwin, 2004). The second is denoted in the symbolic powers of art and graph in inviting a wider range

of audiences to participate in the research exchange process, as well as opening up multi-faceted entry points to understanding research (Carter, 2013; Springgay et al., 2005). In exploring symbolism, I realized that the metaphoric and metonymic undercurrents carry through from the conceptual to the theoretical frameworks of museums and a/r/tography. Constructivism bases its premise on the importance of experiences in shaping learning (Hein, 1991; Hooper-Greenhill, 1997), while a/r/tography founds on the centrality of experiences in shaping research and engaging with inquiry (Carter et al., 2011; Leggo et al., 2011). Also, metaphoric and metonymic openness denotes fragility that enables a "loss of meaning, a realization of meaning, or neither" (Irwin & Springgay, 2008). Through harnessing the powers of metaphor and metonymy, I embraced the potential of meaning-making and un-making throughout the course of the inquiry. I became cognizant of the fact that only through accepting the possibility of loss of meaning could I unearth new meanings.

Contiguity warranted me a space to share my story of coming to museums, being in museums, and imagining museums. I created an on-looker lens, which is that of a museum-enthusiastic outsider looking at the museum from a visitor/spectator stance. Then, I adopted an in-looker lens which embodies my introspective insider positionality as a museum practitioner who is consciously critical of the establishment and purposely examines and questions the ins of the practice. To reflect my post-museum stance (Hooper-Greenhill, 2000; Witcomb, 2003), I developed an out-looker lens which channels my museum practitioner self who believes in the potential of museums despite their plagued pasts. It is a stance that captures the imaginative capacities of looking out for change while simultaneously harnessing the powers of current and previous efforts for relevance. Engaging with the shifting tides of my situatedness prompted my reflection on the museum's story in the past, present, and future. Accordingly, I discovered that

museums have been trying to shed the remnants of their contentious contiguity by actively working on becoming more relevant establishments (Bennett, 1995; Sandell, 2002; Silverman, 2002). Museums re-design existing galleries to achieve higher ethicality (Edson, 1997; Kreps, 2011), re-conceptualize the exhibits for more inclusivity (Sandell, 2007, 2016; Silverman, 2002), and renovate their spaces for more accessibility and engagement (Black, 2012; Lester et al., 2014). Museums also try to remain relevant beyond their physical premises by providing physical and virtual outreach programs for people who cannot afford to attend the museum (Talboys, 2012). By delving into the theme of contiguity, I came to appreciate the relationality of the personal to the global (Sinner et al., 2006). I was only able to uncover new perspectives to my understandings of museums in relation to the everydayness because of a careful attending to the a/r/tographic rendering of contiguity as relative to my subjective relationality vis-à-vis my object of research. So, if I ever doubted the capacity of engaging with a/r/tographic research because of its highly subjective nature, then witnessing first-hand the reverberations of practicing a/r/tographically has cast my doubts aside.

Through embracing excess and carving a dedicated space for it in my study, I experienced how the "outlier" shapes and re-shapes the core research and vice-versa (Siegesmund, 2013, p. 142). When I started engaging more profoundly with my research, I realized that I have been writing about being artful when I have actually ceased to practice my art. This epiphany directly contributed to my art revival, because only through practicing a/r/tographically did I become artful again. Within the understandings of a/r/tography, we are constantly "coming to becoming" (Irwin, 2018, p. 195), whether through experiences influencing our studies or a/r/tographic practices reshaping our lives. In engaging with excess, I witnessed the interrelatedness of practicing on my practice and my practice on practicing. I became

cognizant of how the in-betweens are an integral part to understanding the bigger picture and how parting with excess invites new meanings.

In the final exploration, I used the "dynamic movement" of reverberations to uncover new meanings to emergent understandings about learning and experiences in museums through an a/r/tographic lens (Irwin & Springgay, 2018, p. 174). In exploring my choice to separately focus on each of the six renderings, despite them not being intended as stand-alone conceptual components of a/r/tography (Springgay et al., 2005), I exhibited that an individual and meticulous attending to all renderings was successful in jumpstarting relevant thematic explorations pertaining to experiences in and with museums. Also, through highlighting each of the six renderings, I filled a "significant gap" resulting from researchers predominantly engaging with living inquiry and metaphor (excluding metonymy) as manifestations of their a/r/tographic attempts (Sinner, 2017, p. 46). My work showcased that separately attending to each rendering emphasized the continual interplay of all renderings throughout the study. An individual attending to openings, living inquiry, metaphor and metonymy, contiguity, excess, and reverberations stresses the interrelatedness and intersectionality of all a/r/tographic renderings. Moreover, in examining the resonance of attending to the renderings in uncovering new understandings of the potential of museums, I discovered that my initial understanding of the museum's potential was strictly confined by my practice of outreach as an endeavour that creates offsite museum-experience replicas for those who cannot afford to come to the museum.

In looking at my emergent understandings through an a/r/tographic lens, I recognized two themes: methodological resonance and museological resonance. Methodologically, by attending to all six renderings, I filled a "significant gap" resulting from researchers mostly employing

living inquiry and metaphor (excluding metonymy) to frame their a/r/tographic research (Sinner, 2017, p. 46). The use of all renderings highlights "the function of renderings and what renderings [could] continue to contribute to a/r/tography in the future" (Sinner, 2017, p. 46). Museologically, I uncovered that museums need to start harnessing the power that lies in the in-betweens. I accordingly suggested the creation of a network that capitalizes on the contiguous outside space as an openings opportunity for inviting people to engage with the museum. So, instead of only focusing on re-creating offsite museum experiences, I introduced the idea of a network of in-betweens that uses instigators and prompts to initiate or revive interest in the museum. I envisioned these symbolic prompts as signage being placed in public spaces, gardens, and parks to fashion links between the daily in-betweens and museums. They serve as invitations into the physical and virtual museum presence by suggesting the relevance of a museum's collection or programming to our everydayness.

I expressed my initial vision for the network of in-betweens as a multilayered and complex network of interconnectedness between museums, public spaces, and educational institutions. Signifiers are disseminated among the participating entities in the network in order to establish the contiguity of museums to their surroundings. The first layer of the network of in-betweens is the intra-museum network, where museums use their physical and virtual presence to prompt users to seek museum experiences beyond their institutions. The second layer is the network of museums and urban recreation locations, e.g. gardens and parks, where instigators are placed in public areas to intrigue the public into physically or virtually engaging with the museum through linking their public experiences to the museum's collection or programming. The third layer is the network of museums, urban recreation, and educational institutions, where a strong back and forth resonates throughout. This layer creates instigators in public areas and

educational institutions to intrigue the public into physically or virtually engaging with the museum through linking their public experiences to the museum's collection or programming. It also creates prompts in museums to consider visiting educational institutions to discover ongoing research endeavours pertinent to exhibit themes.

A network of in-betweens is an imaginative musing based on the relationality of museums to our everydayness. Due to the fact that our daily changes, the museum is compelled to engage in simultaneous change to complement its contiguous relationality to our lives. This means that participating in the in-betweens has the potential of rendering museums in a constant state of change and thus relevance. Also, creating a network of in-betweens means re-shaping the whole city into becoming a network of curiosity, where museums spark interest in knowing and exploring more. This could ultimately lead to the manifestation of a *curiocity* or a *curiocité* that facilitates accessibility to knowledge and dismantles institutional silos. As such, we will live in cities that embrace our "lingering curiosity of being-in-the-world" (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006, p. 1237).

Implications

The idea of a network of in-betweens corresponds to the museological premise that suggests that museums should constantly seek to "reposition themselves in relation to their audiences" in order to remain relevant (Hooper-Greenhill, 2000, p. 150). The dynamisms of the back and forth of reverberations, captured in the audiences-museum liminal interactions, would compel the museum to become more active and responsive. After all, 'museums obey the thermodynamics of inertia: when at rest, they stay at rest" (Meyer, 2006, p. 89). So, by museums engaging with their contiguous existence to our lives, they could never be at rest because the in-

betweens are always buzzing with happenings from our everydayness. As such, museums will be in a state of constant change that is shaped and re-shaped by the resonance of continuous interactions with the public. The reason why museums try to harness their potential is because they want to remain materially and ethically relevant to ensure their sustainability (Okita, 1997). In return, a museum's sustainability is morally and financially maintained by public support (Freedman, 2000; International Council of Museums, 2013), and therefore engaging in a network of in-betweens accentuates the museum's existence and participation in the public sphere.

From a conceptual standpoint, the network affords the public to symbolically engage with the museum from their comfort zones, places of familiarity, or spaces they frequent. This would help create a more familiar and comfortable relationality to the museum, which could consequently encourage the public to venture out of their comfort zones and into the museum space. The network is also a similar marketing strategy in comparison to outreach (Talboys, 2012), in that it serves as a means of inviting the public into the museum. The reasons people do not visit museums are complex and varied; however, the most prominent reason is that museums are considered leisurely activities, and as such compete in time and affordability with other leisurely offerings (Falk & Dierking, 2013). So, by museums increasing their symbolic presence in the network of in-betweens, they are capitalizing on prime marketing opportunities that could in return translate into more visits.

From an operational standpoint, enticing people to physically or virtually visit the museum means traffic numbers will increase. For example, in Quebec, the latest survey indicated that only 29.9% of Quebecers with children attend museums (Hill Strategies Research Inc., 2003), despite the fact that families with children make up 42.4% of Quebec households

(Statistics Canada, 2012). Thus, the network of in-betweens offers great potential in targeting the 46.6% of the remaining Quebec households who frequent parks and public spaces due to proximity, affordability, and/or convenience. More potential visitors translates into more probable income that could positively contribute to the museum's economy of scale (Frey & Meier, 2006). I specifically focus on families with children because the younger generation is the future set of museumgoers. Accordingly, if museums create relevant relationalities from early on, there is great prospect in capitalizing on it in the long-term. Moreover, even if the network of in-betweens exclusively triggers virtual visits, there is evidence that virtual museum visits eventually lead to actual physical visits. According to a survey commissioned by the Canadian Museums Association, 44% of people who virtually visited a museum website followed up with a physical visit to the museum itself; 74% of those visitors were under 18 years of age (TeleResearch Inc., 2003). Here is great proof that younger museumgoers exhibit different relationality trends in engaging with the museum. Deductively, if a virtual engagement with the museum can trigger enough intrigue and curiosity leading to an actual visit, then there is great potential in harnessing the symbolic powers of a museum's existence in the liminal of our everydayness.

From a fiscal standpoint, collaborating in a network with other public institutions means the museum can tap into a larger pool of allotted public funds. For example, the city of Montreal has a dedicated budget for culture, heritage, and public property combined (Services des finances, 2012), which means that once divided, each institution gets a fraction in comparison to having access to a combined budget pool. Also, financially speaking, the network offers museums a more prominent public presence, and accordingly could increase the prospects of

receiving more public and private funding considering museums would be further justifying their public value (Canadian Museums Association, 2016).

On a micro level, I see the potential of the network of in-betweens in addressing Montreal's efforts to provide "best access to knowledge and culture" (Direction du développement culturel et des bibliothèques, 2005). The network can provide numerous and varied opportunities to link the varied knowledge and cultural offerings around the city with the wealth of collections and programming offered by Montreal's extensive museum presence. Creating a network of in-betweens means re-shaping the whole city into becoming a network of curiosity, where museums spark interest in exploring, experiencing, and knowing more. As such, Montreal could well become a pilot project for a curiocity or a curiocité. On a macro level, I envision the network of in-betweens, curiocity, expanding beyond the city to create a provincial network, and then form a Canada-wide network. The participation at the national level could help cultivate a better understanding of the potential residing in the Canadian museum sector, thus overcoming the "lack of an over-arching vision for museums in Canada" (Canadian Museums Association, 2016, p. 8).

Beyond the local and national levels, I see the prospect of the network of in-betweens transcending borders and developing into an international network. By growing the network from the local to the global, museums across the globe will be compelled to position themselves as "global products" that continuously "understand and respond" to their audiences (Boniface & Fowler, 1993, p. 143). Also, this global participation might trigger new universal growth prospects for the potential of museums. Coincidentally, just as I am wrapping up my remarks, the International Council of Museums (ICOM, 2019) launched a call in early 2019 "inviting

members and other interested parties to take part in creating a new, more current definition" of museums. As expressed in the call, the ICOM (2019) acknowledges that "[o]ver recent decades museums have radically transformed, adjusted and re-invented their principles, policies and practices, to the point where the ICOM museum definition no longer seems to reflect the challenges and manifold visions and responsibilities". So, maybe the vision for a local as well as global network of in-betweens could cultivate new understandings to the existence of museums, and thus the definition of museums.

Possibilities

This study allowed me to become an a/r/tographer, and I am tremendously intrigued by the endless possibilities presented in approaching my research endeavours through an a/r/tographic lens. At this point, I recognize a set of opportunities in my newfound meanings to address three emergent reverberations: a) the relationality of museum learning to educational settings, b) the capacity of a/r/tography in opening new ways of looking at critical issues in museums, and c) the meaning of museum experiences to museum practitioners through an a/r/tographic lens.

Through this inquiry's emergent understandings about museological learning and experiences, I foresee the prospect of re-investigating museological experiences in relation to school-based education, especially the kindergarten and elementary classes, in order to further contextualize the relationality of learning and experiences in the classroom setting. I base my research premise on the comparable nature of early schooling classrooms and museological education approaches. There is great prospect in discovering their contiguity and intersectionality to highlight their respective situatedness in relation to learning and experiences. Also,

considering a/r/tography's complementary nature to the conceptual and theoretical frameworks of museums, I see it as a promising methodological approach that could unearth hidden meanings to critical issues in museological settings. I anticipate using a/r/tography to explore repatriation claims in museums by delving into the relationality of the personal to the universal, and the local to the global. This relationality could help shed light on community and museum relationships, accessioning and de-accessioning practices, as well as the debate on local and human heritage in an attempt to prompt new understandings to the museum's contemporary ethicality. Moreover, I envision employing a/r/tography's premise of subjectivity to expand on the understandings of the personal positionality of museum practitioners in and with museums. Through emergent understandings from my museum-based self-portrayal in a/r/tography, I could uncover new meanings to practicing in museums in order to explore the potential of museological professional development.

In conclusion, I remain cognizant of the fact that every new inquiry attempt will reverberate into an opening into another inquiry because practicing a/r/tographically oftentimes means generating "unfinished stories" (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006, p. 1251).

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