

How to be a Settler:
Using Immersive Media and Critical Pedagogies as a Means to Unsettle

A Research-Creation Thesis
in the Department of
Communication Studies

Presented in Partial fulfilment of the Requirements
For the Degree of
Master of Arts (Media Studies)

at Concordia University
Tiohtiá:ke/Montréal, Quebec, Canada

April 2021

© Émilie Trudeau, 2021

CONCORDIA UNIVERSITY
School of Graduate Studies

This is to certify that the thesis prepared

By: Émilie Trudeau

Entitled: How to be a Settler: Using Immersive Media and Critical Pedagogies as a
 Means to Unsettle

and submitted in partial fulfillment of the requirements for the degree of

Master of Arts (Media Studies)

complies with the regulations of the University and meets the accepted standards with respect
to originality and quality.

Signed by the final examining committee:

Dr. Arseli Dokumaci	Chair

Dr. Owen Chapman	Examiner

Dr. Arseli Dokumaci	Examiner

Dr. Elizabeth Miller	Thesis Supervisor

Approved by: _____

Dr. Owen Chapman Graduate Program Director

Dr. Pascale Sicotte Dean, Faculty of Arts and Science

Date: April 30, 2021

Abstract

How to be a Settler: Using Immersive Media and Critical Pedagogies as a Means to Unsettle

Émilie Trudeau

This research-creation project considers the pedagogical potential of immersive media in a process of ‘unsettling’. As conceptualized by Paulette Regan, Eric Steinman and other settler colonial scholars, ‘unsettling’ can be understood as an identificatory shift on the part of White settlers as to their positions within settler colonialism. Immersive media offers filmmakers the opportunity to harness a sense of presence and embodiedness. Inquiring into alternative pedagogies in line with Indigenous pedagogies, I explore whether these assets can be mobilized to ethically work towards unsettling with settler students of high school age. To do so, I began by exploring how an artistic practice could contribute to a deeper understanding of my settler identity by creating a personal film prompted by the 2019 Amherst street’s name change to Atateken. I worked with Indigenous filmmakers to create their own 360° films, and used the above as the basis for study guides intended for high school students.

Acknowledgements

So many thanks are owed to so many people without whom this would have been a much more painful and less joyful process than it was.

From Concordia:

The Communication Studies department for their kindness and availability. Dr. Dokumaci & Dr. Chapman for graciously agreeing to serve on my committee, despite their incredibly busy schedule. Dr. Jiwani and Dr. Van Wyck for their initial participation. All the members of my cohort for being so weird, smart, beautiful and welcoming. Zaccary Dyck for his input, his patience, his enthusiasm and bottomless knowledge of all things technicals. And from the deepest corners of my heart, I want to thank my amazing supervisor Liz Miller. Getting to meet and work with you made everything worth it.

From Wapikoni:

Thank you to Myriam, Naomi, Craig, Daniel and Mélina for letting me use their work as basis for this project. Particular thanks to Karen and her creative generosity — becoming your roommate was the most wonderful bonus to this project.

Finally, I'd like to thank my friends and family who dealt with my unwarranted tears and constant existential crises this project brought forth. My study buddy Roxanne, Gabz, Jacqui and Deana for all the emotional support. Grand-maman and grand-papa who still have no idea what I'm doing, but congratulate me anyways. Maman, Daniel, Sam, Patrick et Annie: What can I say? Vous êtes la meilleure famille au monde, tout le temps.

List of Figures

Figure 1	4
Figure 2	6
Figure 3	20
Figure 4	31
Figure 5	39
Figure 6	41
Figure 7	76
Figure 8	76
Figure 9	76

List of Tables

Table 1	23
Table 2	64
Table 3	73
Table 4	75

Table of Content

List of Figures	v
List of Tables	vi
Introduction	1
Output	5
Theoretical Framework	6
1. Unsettling: a settler’s tool to intervene in settler colonialism	7
2. Immersive media as a space-based pedagogical tool	9
Literature and media review	11
1. The ethics and potential of immersive media	11
2. Immersive Media as mobilized by Indigenous filmmakers	14
3. Pedagogy as a tool to unsettle	16
4. Media review and auto-ethnographic reception study of virtual reality	21
Methodology	28
1. Unlearning/Learning	28
2. Holding Space in a context of Co-creation	29
<i>Logistics, food and care</i>	30
<i>Reciprocal knowledge-making</i>	31
<i>Prioritizing both process and final project</i>	32
3. Creation as method for personal inquiry and creative unsettling	33
4. Outreach and impact: plans to use the films to unsettle future audiences	34
Discussion	36
1. Une Histoire de Rues: a creative response to the White settler identity	36
2. Evaluating the potential of immersive media in schools	43
3. Experiential learning: teaching in my own classroom	47
Conclusion	51

Works cited	53
Appendices	65
Appendix 1: Media Review and Field Notes	65
Appendix 2: Directed Study Reading Curriculum	74
Appendix 3: Circle Visions Workshop Sample Material	77
Appendix 4: English script of Une Histoire de Rues	78
Appendix 5: French Script of Une Histoire de Rues	80
Appendix 6: English script of Langue Leçons	82
Appendix 7: French script of Langue Leçons	84
Appendix 8: English study guide for Une Histoire de Rues	86
Appendix 9: English study guide for Langue Leçons	87

Introduction

The 360° camera was small enough to be held in one hand. It had two lenses, one on each side, and only three buttons. It was simpler than most DSLRs I'd ever used and yet, saying I was working with an immersive 360° camera elicited more awe than I'd ever known before. It was going to be at the centre of a semester-long study during which another student and I were to learn how to use it so we could teach it to five Indigenous filmmakers as part of the spring 2019 edition of the Circle Visions Workshop Series¹ held at Concordia University. To teach the workshop, I was also to familiarize myself with theories on decolonization, settler colonialism and Indigenous pedagogies, all of which I'd already been reading up on for five years as part of my work at a summer camp that was trying to address the cultural appropriation that was intrinsic to its foundation. It had not been an easy process since what I'd learned in school was so basic it could be reduced to 'Iroquois live in longhouses, Algonquins live in tipis, and none of them wanted the golf course that was built in Oka'.

As progressive as I like to think of myself, it was also difficult for me to reconcile that the place I'd worked at as an educator for 15 years was *technically* occupying stolen lands and that so was Montreal, the place I called home. As a francophone, I'd been taught the land was rightfully mine, the proud result of my people's resilience against the colonizing arrogance of the English. Land acknowledgements were all good and well, but I had to wonder, "don't I also belong here?" It's not like I could just go back to France...

As a conservative friend once told me: "there is nobody quite as judgmental as a liberal" — so I kept my questions and my unease to myself. I attended workshops, bought

¹ More information can be found on the official website: <http://redlizardmedia.com/circlevisions>

books, tried my hand at an Atikamekw language class, and reprimanded people who used the term 'savage' while still unable to address how defensive I felt being called a settler². At the end of my first year of study as an MA student, I received a timely and helpful metaphorical slap in the back of the head.

During a discussion circle on terminology at a workshop for settlers, a Black woman raised the point that marginalized people rarely get to choose what they are called. In other words, "get over it". Taking the element of choice out of the equation somehow allowed me to set aside my righteousness and embrace my identity as a settler as just one of many identities to negotiate. Being 'White', 'woman' or 'cisgender' were other identities I'd inherited, and so was being a settler. I did not need to justify it, only to be responsible and accountable instead of defensive and avoidant.

I have chosen to be accountable by using my experience as an educator to provide other settlers with a space to examine their own position as it relates to Indigeneity. Education has been named one of the key parts of reconciliation by the Truth and Reconciliation committee (TRC). I decided to use my interest in immersive media and its affordances for Indigenous artists as an entry point from which to work. I wanted to explore how this medium might enhance pedagogies of place that echo tenets of Indigenous pedagogies. I wondered what framework would be needed around the media to do so. I was also intrigued as to whether it could be a useful tool with which young settler students could work to 'unsettle'.

Inspired by Paulette Regan, I understand the term 'unsettle' as a process through which settlers come to understand their positions within settler colonialism, and as a first step towards settler accountability (11). Although unsettling must be accompanied

² It must be noted that within the context of this paper, I use the term 'settler' to refer to White settlers.

by action, it feels like an interesting distinction from the concept of decolonization that points to the inward reflection needed so as not to unwittingly reify harmful tropes about, or when working with Indigenous people (Hiller 428). These definitions of unsettling underpinned my own creative process and served as a prism to explore a range of pedagogical experiences I could use alongside immersive media. I will expand on this and conceptualizations by other scholars in the theory section of this paper.

Research into immersive media's educational capacities is still in its infancy, partly because until recently, the technology was still largely inaccessible. Most of its developers and advocates focus on its ability to promote a sense of presence and empathy (Rose 141). The notion that feelings of empathy are enough to impact change has however been challenged by scholars such as Kate Nash, Lisa Nakamura and Susan Dion. They suggest that we need to unpack easy assumptions about empathy's appropriateness or ability to impact social change (Nash 129, Dion "Braiding Histories" 127). Still, Indigenous scholars such as Loretta Todd and Courtney Morin believe that the medium might provide Indigenous filmmakers with unique capacities for expression outside of the settler-colonial hegemony (Morin 144, Cyca). They suggest that the novelty of immersive media positions Indigenous creators as contemporary media players.

I began with a series of questions: How might immersive media be mobilized as a tool to ethically 'unsettle' colonial logics in an educational context? What pedagogical framework would it best be suited for? How might a potential educator use 360° to work towards decolonization in the class? These research questions are the foundation of a multipronged research-creation project. The first step was part of my participation as a mentor in the 2019 Circle Visions Workshop Series. These workshops were initiated in 2016 by Elizabeth Miller and Kester Grant. This was my second

participation, and I was asked to take a lead role in designing the workshop. During the workshop, I worked alongside Indigenous filmmaker Karen Pinette Fontaine to create her first immersive 360° film. I then developed my own 360° piece and wrote accompanying study guides intended for high school students. These study guides consisted of a series of conversational prompts that aimed to complexify how Indigeneity is conceived of and taught in Quebec schools.

This project revolves around Indigenous authors' mobilizing the modern technology of 360° films and a settler's reflexion on her own identity. By doing so, I hope to provide a tool to problematize the archaic education I received so that Indigeneity in school becomes much more than tipis and longhouses.



Figure 1

Output

1. Circle Visions Immersive Workshop

Following a directed study, I was part of a team that built and facilitated a week-long immersive media workshop for five Indigenous filmmakers.

1.5 Langue Leçons by Karen Pinette Fontaine

After the workshop, I followed up with Karen, the filmmaker I'd worked with most closely to finish her piece. Her 3 ½ minute film follows a young Innu woman who moves to the city to learn her native language.

2. *Une Histoire de Rues*

I wrote and edited the script for my own short 360° film that brings viewers to different locations in Montreal. This creative process was an opportunity to delve deeper into what being a settler meant to me.

COVID-19 prevented me from accessing some of the tools needed to complete the movie. I have provided a rough, alternative work- in-progress copie.

3. Study guides

Using the immersive films created as part of the Circle Visions workshops as well as *Une Histoire de Rues*, I prepared a series of study guides intended for high school students.

Due to COVID-19, I have been unable to try them out.

*** Please see accompanying booklet to peruse all study guides in detail.

Theoretical Framework

Two interwoven concepts informed the development of this project's different components that include: the creation of my own 360° piece titled *Une Histoire de Rues*, my work with Karen, a young Innu filmmaker on her first immersive film during and after the Circle Visions Workshop and the development of study guides for schools based on both films. I begin with settler-colonial theories of "unsettling," (Hiller 418, Steinman 561; Regan 13, 23) as a critical step in processes of decolonization. This term is specifically relevant for settlers and it laid the groundwork upon which I situated theories and practices of innovative pedagogies that can relate to or complement Indigenous pedagogies (Antoine et al. 18-19). The new interpretations of spatiality within immersive media and the pedagogical opportunities it allows was the second framework through which I constructed the three steps in my project.

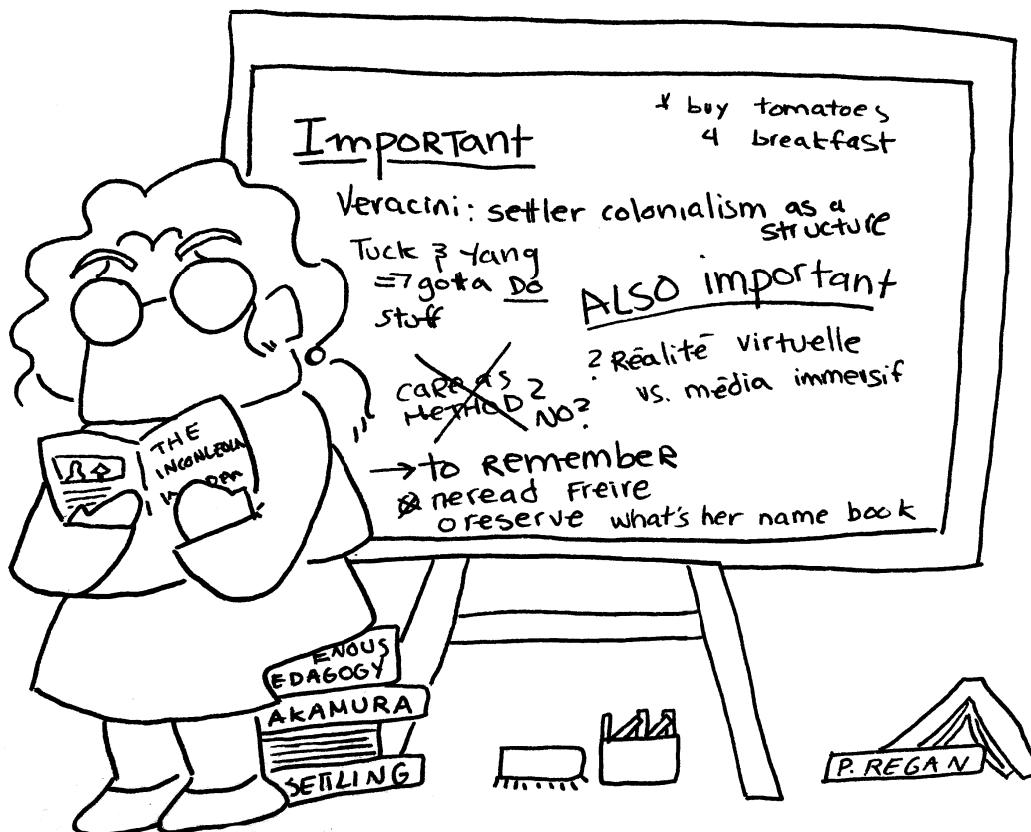


Figure 2

1. Unsettling: a settler's tool to intervene in settler colonialism

Although 'decolonize' has been part of my vocabulary for several years, I first came across the term 'unsettling' in 2019 when I was invited to a series of workshops where settlers were asked to come together to enact practical change in their communities (Unsettling Event Series). Although I found it to be only somewhat successful (there is a limit to the kind of decolonial insight an activity such as communal playdough making can bring forth), the workshop did push me to reflect on how my specific background and abilities could be mobilized to disrupt a settler colonial logic that remains an intrinsic part of my identity. I was and am still very wary that some of my actions and thought processes might ultimately reify settler supremacy and thus looked to settler colonial studies as a framework from which to work.

As explained by Lorenzo Veracini in *The Settler Colonial Present*, settler colonial studies do not propose 'solutions' to the settler colonial project but facilitate thinking processes that might (100). This begins with an understanding of settler colonialism as a structure, and not an event (Wolfe as qtd in Miles 303). Inside this frame, unsettling can be understood as a tool rather than a finite goal.

Expanding on Veracini's conceptualization, settler colonial scholar Erich Steinman writes that settler colonialism is not physically located where Indigenous people are and cannot be reduced to actions that recognizably harm them (560). Instead, settler colonialism is what makes those harmful actions possible in the first place, and it permeates most of the structures of our national identity and practices. Accordingly, this would mean that it is possible for settlers to challenge it in our day-to-day lives, even when not participating in specific Indigenous-led actions which, as he points out, most settlers only sporadically have access to (566). Steinman calls these quotidian disruptions "unsettling as agency" (561) and believes they can demonstrate the

contradictions embedded in the settler colonial project, specifically in areas that do not inherently rely on land appropriation (566). The Truth and Reconciliation Commission of Canada calls for Canadians to “learn how to practice reconciliation in our everyday lives — within ourselves and our families, and in our communities, governments, places of worship, schools, and workplaces” (TRC 2015a 20)³.

Steinman defines unsettling as “a framework for understanding the place and relationship of non-Indigenous people to Indigenous decolonization and settler colonization” (561). As such, I understand and use unsettling as a process within which settlers can come to see the lasting structural heritage of colonialism (Hiller 418) and recognize that the land we consider home is not inherently ours (Calderon 28). Despite its name, I also understand unsettling as an opportunity to embrace my identity as a White settler, an identificatory shift without which settlers cannot recognize how this identity advantages us.

It is important to note that unsettling cannot be equated with decolonizing. It can however be considered a potential part of it (Veracini 107; Tuck & Yang 21). Moreover, just as practical change must accompany effective processes of decolonization (21), unsettling cannot remain a purely reflexive endeavour, despite the importance of the cognitive groundwork necessary to avoid replicating and reinforcing settler-colonial structures (Tuck & Yang 3; Steinman 563).

Finally, I’d like to refer back to Steinman’s characterization of ‘unsettling as agency’ which he defines as “disruptive, bounded and modest” (572). This framework allows for ‘modesty’, for settlers still unsure of how to ethically participate in a decolonizing process

³ I cite the TRC as an additional source that carves out spaces other than direct actions as potential sites of intervention however, the substance and debates as to what reconciliation is or entails is outside the bounds of this particular project

to humbly 'disrupt' the current system while recognizing the limitations of their actions which are also 'bounded' by how embedded they are in settler colonial ideology (564-5). This recognizes how Indigenous leadership and agency must still remain at the centre of decolonizing endeavours.

Based on the above, I operate throughout this whole project under two assumptions. It is up to me to understand my responsibilities as a non-Indigenous person within the continuous practice of decolonization (Steinman 561) and unsettling is not a goal but a step towards reimagining my and other settler's relationships with the land (Davis et al 399).

2. Immersive media as a space-based pedagogical tool

My initial hypothesis was that since 360° cinematography is a space-based medium, meaning that a viewer can only 'watch' a piece by being surrounded by it, it could be mobilized within different pedagogical practices that rely on space, place or embodiment. Place-based pedagogy is an educational approach that parallels Indigenous pedagogies (Antoine et al. 19; Kovach et al 490). It situates students in a social and geographical ecosystem so that they can build a more sustainable and reciprocal relationship with the environment (Seawright 555). As part of this practice, place-based educators have argued that place is otherwise commonly taught through a utilitarian lens which either negates its relational and ontological importance or makes into a hegemonic tool of domination (555). As such, I imagined immersive media as an epistemological tool that could situate viewers into a mutually constitutive relationship with their immediate physical environment.

Speaking specifically of 'theory' in Nishnaabeg cosmology, Leanne Betasamosake Simpson explains that "it is woven within kinetics, spiritual presence and emotion" (7),

which immersive media all proposes to provide. This kind of experience is also obviously available 'in real life' but might not be as easily marketable in settler colonial underpinned educational institutions. Thus, I also understand immersive media as another, more currently 'educationally acceptable' pedagogical tool. This does go against Simpson's warning that decolonization cannot be achieved by fitting in the framework of the "western academic industrial complex" (13). However, as a White settler, I'm hopefully (or naively) operating under the assumption that providing a sense of presence through immersive media as part of an unsettling endeavour might still be relevant, especially since I am targeting settler youth and not Indigenous students.

Finally, immersive media is still understood as a fairly new technology, specifically in its accessibility (Kuchera). Its novelty to viewers still affects the strength of its impact (Green et al 18; Archer & Finger 56). Thus, I also understand immersive media, especially when used to premeditate contemporary Indigenous visibility, resurgence and technological know-how (Shogaolu 3:30; Lewis 72) as a time-specific tool whose capacities are most pertinent presently.

Literature and media review

1. The ethics and potential of immersive media

My first experience of immersive media was happenstance. The summer camp I was an employee for was based in a coworking office. In 2017, one of the workers at a different company was giving a workshop on Tilt Brush, a painting application within a virtual environment. Curious, I shamelessly hovered until he invited me to try the program. Once 'inside', I was able to use my hands, which doubled as brushes, to draw as if I were painting in the air all around me. My heart still beats just thinking about how powerful and extraordinary I felt, creating squiggly lines I could step over and under. I felt as if I was in the centre of another world.

Whether as games or as films, immersive media's novelty lies in its ability to place viewers at the visual centre of a cinematographic experience. If leveraged properly, a headset makes a person feel more physically present in whatever environment is portrayed. This embodied experience is at the centre of debates as to immersive media's capacities to impact social change. Touted as a 'force for good' by many of its pioneer creators, it has been promoted as a way for audiences to feel connected and compassionate towards marginalized or dispossessed communities such as refugees and transgendered people (Nakamura "Feeling Good" 48) in a more powerful way than 2D or 'flat' media. Its developers in particular argue that the physical experience provided by immersive media generates empathy which is itself seen as an agent for social change (Johnson E.; McRoberts 103; Milk 9:29; Zuckerberg qtd. in Nakamura "Laboring Infrastructures" 5:30; Souppouris). The argument is that the visceral impression of 'being in' someone else's position permits users to come to an understanding "that connects to spirit and body as much as reason" (Cogburn 13:07).

This focus on embodied feeling and the technical requirements of immersive media translate to a variety of tropes that are sometimes at odds with methods of conventional documentary filmmaking. For example, in 'flat' media, explicitly addressing the viewer is thought to reduce immersive engagement whereas in 360° films, acknowledging someone is presumed to enhance the feeling of 'presence' within virtual reality (VR) (McRoberts 110). It is suggested that being directly engaged with the storyline increases a "sense of first personness" (108), of actually living through what a user is seeing.

Some argue this is not necessarily an advantage for the subject of the documentary. As Kate Nash outlines in "Virtual reality witness: exploring the ethics of mediated presence", by making the story about the viewer, this direct address trope comes with the inherent risk of privileging "truths about ourselves [...] above the experience of the others" (120). In their reports on the ability of virtual reality to generate empathy, Dan Archer and Katharina Finger found that for feelings to be leveraged into action, viewers must retain a sense of self whilst being immersed in another person's experience (17). This sense of self, however, can become problematic if a user's experience takes precedence over the circumstances of the protagonist. To answer this, Nash uses Couliariki's concept of 'improper distance' to trouble the ethics of proximity in VR (Chouliariki and qtd in Nash 125).

Lisa Nakamura explains that the impression that VR provides an unmediated experience of reality has led creators to favour emotional release as a centre point of their work (147). Albeit effective, this tends to hide structural inequities that shape the featured injustices while relying on individual affect as a tool for social change (Rose 143). This "need to feel instead of the will to listen" in order to acknowledge the truth of someone else's reality has been criticized as both appropriative and ineffective (Yang).

Nakamura specifically flags a VR experience on homelessness to point out the irony of the strong emotional responses of viewers to the subject of marginalized people, while those same viewers can be assumed to regularly encounter this same marginalized population 'in real life' without being moved to tears ("Labouring Infrastructure" 14:30). Similarly, Robert Yang states that "if you won't believe someone's pain unless they wrap an expensive 360° video around you, then perhaps you don't actually care about their pain". As a medium whose effectiveness relies on an emotional, and not factual engagement (McRoberts 108), Nakamura powerfully argues that VR can become a narrow tool of emotionally, socially and politically decontextualized experience, and contribute to a neo-liberal understanding of injustice where individual responses prime over structural change. In other words, 'to feel' becomes synonymous with 'to understand', 'to address' and 'to change' (Nash 129; Nakamura, "Laboring Infrastructures" 16:00).

On a more practical level, the sense of presence at the core of virtual reality's claim to produce empathy is also affected by the technical affordances of each piece. How realistic the footage is, where the viewer is situated within the footage, how interactive the piece is and whether the viewer has power over the direction the story takes all affect the sense of presence provided by a film (McRoberts 105). How many times someone has previously viewed virtual reality also impacts how much empathy a new piece generates towards its topic — the more unfamiliar the technology is to someone, the stronger their response (Archer & Finger 55). Some of the ways VR has been publicized have also already demonstrated that the medium does not inherently stimulate empathy or regard in pro-active ways. This was painfully obvious in Mark Zuckerberg's high-five to a coworker while 'virtually visiting' flooded Puerto Rico in 2017 (Nakamura "Feeling Good" 62n3).

Virtual reality is not a shortcut to social change, and its status as an empathy machine is questionable. However, despite substantial arguments, it can still provide opportunities for new forms of immersive expression that prioritize place and do not attempt to ‘stand in’ someone else’s shoes. Notably, immersive media has called the attention of many Indigenous filmmakers. Its affordances are crucially congruent with Indigenous storytelling traditions and have enabled Indigenous artists to communicate realities outside of the settler-colonial hegemony (Wallis & Ross 3-4, 6). As with any type of media, the context in which films are created — its authors, its message, its aesthetics — is just as important as the technology when it comes to creating ethical and impactful work.

2. Immersive Media as mobilized by Indigenous filmmakers

A wide array of Indigenous artists have already built a small but impressive register of virtual reality works (Fourth VR) that use the affordances provided by the technology to play with conceptions of time and space (Morin 144).

For instance, Danis Goulet’s 2017 *The Hunt* defies the normalized settler colonial linguistic framework through his use of sound and viewers’ limited field of vision in a 360° environment. Characters close to the viewers speak Mohawk while English is only used when speaking to objects further away. English subtitles are only visible in one part of the 360° environment which means viewers who do not understand Mohawk must “work to establish their personal relationship with it” (Wallis & Ross 9), challenging the colonial language’s ubiquitousness. The Mohawk language is also grounded in the present with words newly put together with the help of elders (8). In 2019’s *Future Dreaming*, a collaboration between Australian XR artist Sutu and Indigenous youth in Western Australia, the user is given no corporeal presence but is directly addressed by the four protagonists. Wallis & Ross argue that this technique

emphasizes the viewer's "connection [...] to people and place in a network that merges the temporal states of present and future" (10), echoing educator and Indigenous scholar Michael Marker's illustration of history as a cyclical body of themes and events that fade and emerge with seasons and stories (100). Again, according to documentary maker and professor Brenda Longfellow, this capacity to situate a body outside of a linear timeline and static space, and the inherent locality of virtual reality parallels Indigenous oral storytelling practices (10). Whereas 2D cinema reinforces a paradigm where humans are unconnected to their environment (27), virtual reality's immersive capacities can embed them in a reciprocal relationship with land and time.

During a panel discussion at Film Independent's *The Portal: an immersive storytelling showcase*, *Future Dreaming* collaborator Sutu explained that the creation and the power of the piece emerged from the young Indigenous creators imagining themselves in the future (Shogaolu & al). By using immersive media's temporal, spatial and reciprocal capacities (Longfellow 9), Indigenous filmmakers can mould the medium and carve a space outside of the settler colonial system of representation that underpins their status as Other (Smith 46). They can engage with a methodology where they communicate stories and identities that aren't restricted by a colonial impetus (Ritenburg 72-3).

A frequent hurdle in watching Indigenous-made VR however, is accessibility. For instance, one of the most cited and celebrated virtual reality pieces by an Indigenous filmmaker is Lisa Jackson's *Biidaaban* (National Film Board of Canada; Astle) which I was only able to watch at Concordia's Milieux Institute. *Unceded Territory* is an amazing interactive film by Coast Salish and Okanagan contemporary artist Lawrence Paul Yuxweluptun and Paisley Smith with music by A Tribe Called Red. It does a great job at creatively expressing the repercussion of settler colonialism, but it is so far only

available during festivals. The scarcity of available Indigenous-made VR is strikingly apparent when looking for material in French: a youtube search for 360° videos using the words 'autochtone', 'première nation' or even 'amérindien' all only yielded one page of result.

With virtual reality's tropes and standards still developing for both creators and viewers, Indigenous filmmakers have the opportunity to shape storytelling practices within the medium and how audiences are trained to understand and analyze virtual reality experiences (Morin 145). The way we experience the world is shaped by technologies who are themselves shaped by the identity and concerns of the people building them (Lewis 61). Mobilizing the 'wow factor' still associated with immersive media (Wallis & Ross 2) and presenting works by Indigenous filmmakers positions them as stakeholders in a 'new' and 'technologically advanced' industry, and as actors in the future of 360° filmmaking. Furthermore, although the novelty associated with immersive media is time-specific, its current uses by Indigenous artists provide a counter-narrative to the idea that Indigenous practices cannot evolve or that they belong to an archaic time justifiably taken over by superior settler technologies (Calderon 32). Sharing stories through new digital media made by Indigenous creators situates Indigenous voices and practices firmly in the present (Bissell 6).

3. Pedagogy as a tool to unsettle

If we discount watching *Astérix et les Indiens* at seven years old, my first and subsequently most frequent encounters with Indigenous peoples was in school. How and what is taught plays a crucial role in constructing the ways we understand the present and how we, as individuals and as a nation-state, conceive of ourselves (Conrad 35, 37; Anderson 5). In this section, I consider how some alternative critical pedagogies parallel Indigenous pedagogies and how they can create an educational

environment conducive to unsettling and decolonization. This research informed the construction of the study guides for high school students I developed to accompany the immersive films created during the Circle Visions workshops (as well as my own).

Schools and educational methods are part of the settler colonial culture that creates settler identities (Calderon 25). In settler societies such as Canada, a focus on how the nation has progressed from its beginnings as a colony on 'virgin lands' follows a narrative of 'manifest destiny' where colonization was inevitable due to settler superiority. Reductive ideas of 'Indians' as warriors, victims, or 'noble savages' — an image popularized by Jean-Jacques Rousseau — encouraged a vision of Indigenous people as pre-socialized humans (Smith 50). This substantiated their erasure from contemporary considerations and allowed settlers to reconceptualize themselves as 'natives', metaphorically completing the settler colonial project (Tuck & Yang 9). Even today, most students do not tend to think of Indigeneity as integral to Canadian society or have little knowledge of Indigenous history and the impact of colonization (Currie & Watson 73). A recent study with sixteen years old francophone students showed that they rarely included Indigenous people in their conception of Québec society and, when they did, relegated them to the period of first contact (Éthier & Lefrançois 339; Bories-Sawala). Although First Nation students did not consider themselves as Québécois either, the lack of cognition and consideration of contemporary Indigenous Nations on the territory we think of as Québec is rather concerning.

Challenging the everyday practices that we take for granted, and the framework from which we conceive of them is an integral part of a decolonizing practice (Veracini 96). Indigenous and critical pedagogies offer alternatives to the banking-style education decried by Paulo Freire as antithetical to critical consciousness (73) and structural change (74). He contrasts this type of one-way education, where teacher-subjects

narrate lifeless, static or decontextualized content to student-objects with little reciprocal engagement, to a problem-posing education that emphasizes the constant process of 'becoming' as humans beings, and as part of the world itself (84). This emphasis on process and the generative potential of reciprocity is also present in Leanne Betasamosake Simpson's account of 'Land as Pedagogy'.

“Meaning (...) is derived not through content or data, or even theory in a western context, which by nature is decontextualized knowledge, but through a compassionate web of interdependent relationships that are different and valuable because of that difference” (11)

In this format, knowledge acquisition becomes “coming to know”. It is prompted by trust and relationships with the self, with the land and with your community; it is embodied and it is continuous (7).

Indigenous scholars warn of using the inclusion of Indigenous pedagogies to legitimize settler colonial institutions while performing little to no structural change, which is a frequent occurrence (Miles 302; Simpson 22). For instance, the 2007 *Ontario First Nation, Métis, and Inuit Education Policy Framework* purports to “reorient the philosophical foundations underlying Eurocentric content and pedagogies so as to be more inclusive [of Indigenous knowledge and perspectives]” (Saint-Pierre 376 - translation mine). Nevertheless, it still focuses on standardized testing as demonstration of student success and lacks clear implementation strategies (Currie & Watson 73). If we are to begin a process of decolonization while still embedded in a settler colonial ideology that shapes the very identity from which we consider the world, it is important to shift not only what we teach, but how we teach, particularly in regards to Indigeneity (Tuck & Yang 2).

Critical pedagogies, although not solely focused on decolonization, offer pedagogical frameworks that also seek to problematize oppressive structures and compel students to critically reflect on methods of intervention within those structures (Currie & Watson 72). Place-based pedagogy, for instance, is a pedagogical proposal that attempts to generate knowledge from a local and community basis. It is also touted as an engaging, reciprocal educational method that promotes critical thinking (Webber & Miller 1068). It takes students out of the classroom and grounds the topics they're studying to their environment and the communities they are part of (1066). Lakehead University professor David A. Greenwood defines it as "a way for people to practice paying attention to the places of their lives — their braided cultural, ecological, and ideological landscapes — and to consider their political roles as both place-makers and products of place" (363).

However, although critical pedagogies do attempt to change 'how' we teach, the settings within which they are applied inform their ultimate capacity to radically resist education as a settler colonial tool. In her assessment of the use of historical consciousness, a critical approach that emphasizes how individuals and communities are situated in relationship to the different epistemologies of history (Anderson 13), Stephanie Anderson warns that it should not, but often still is incorporated into a strict and uniformly applicable curriculum, which is at odds with a focus on positionality and process (14). The structure of classrooms themselves and the current requirement to evaluate students according to specific standards also prove to be challenging and overly time-consuming for educators (Seixas 152).

Reviewing literature on teacher training programs, Geoff Webber & Dianne Miller found that even with the best of intentions, teachers' efforts to use alternative approaches in

their classrooms often decreased as time went by (1070). Their training also provided clues as to their difficulty in applying critical educational methods. A focus on disciplinary competence instead of pedagogical training and a “lack of connection between field experiences and university-based courses” (1071) contributed to difficulties in constructing and working with innovative forms of pedagogies.

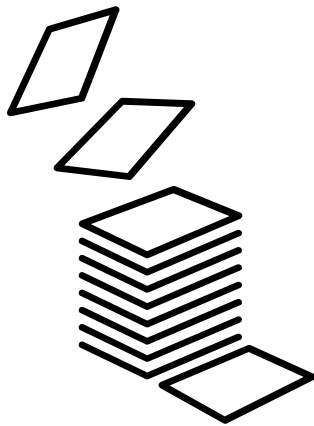


Figure 3

“It is, of course, fun as a researcher to be able to pore over a single student essay for an evening, trying to articulate where it does well, and where it goes awry, with respect to a single fundamental historical thinking concept. Suppose, however, I were faced as a teacher with a stack of two hundred student essays, exhausted from my full day of teaching, and facing all of those students in the next couple of days (...) I might seriously consider a multiple-choice, machine scorable exercise” (Seixas 152).

Thus, a decolonizing practice or any type of educational method striving to step outside of mere content transmission requires action but also personal and structural introspection — how do our training and the structure in which we are operating affect what we consider knowledge? How do we position ourselves in relationship to students and to the content we are hoping to teach? How has our own education shaped the way we perceive and relate to Indigeneity, and to our settler identity? This project and its position outside of a regular curriculum allowed me to explore these questions and play with different pedagogical methods in a way that is not easily accessible to teachers within the educational system.

4. Media review and auto-ethnographic reception study of virtual reality

Experiencing multiple and diverse pieces of immersive media was key to my method and an important part of my literature review. Virtual Reality reception studies are still in their infancy. Ideologically, stances on the impact of virtual reality are polarized, with many feminist media scholars decrying its appropriative tendencies, while commercial proponents and filmmakers celebrate the sense of presence it affords as an embodied media.

One study, however, provided me with much-needed insights into viewers' responses to watching immersive media. *Virtual Realities - Immersive Documentary Encounters* is a pioneering research project that involved a wide-ranging study where 14 families from different backgrounds living in Bristol, UK were given VR headsets in order to examine the socio-cultural context of VR usage (Green "Virtual Realities"). Looking at non-fiction, the research team found that households were mostly enthused about the affordances of immersive non-fiction (Green et al 21), but also pinpointed distinctive limitations, some of which relate to my own experiences in VR.

In particular, some participants were disconcerted by the lack of context with which they experienced pieces such as *Clouds over Sidra*, which purportedly allows them to experience the life of a young Syrian refugee, but without addressing the causes of her displacement. This connects to Kate Nash's concern that such embodied closeness shortcuts our understanding of complicated topics, and her recommendations that immersive media striving for ethical change might benefit from contextualization (129). Participants also found that the medium felt rather anti-social (Green et al 19). Although this is understood as part of the relational uses of television in a domestic setting (20), I would suggest that incorporating pedagogical and social follow-ups such as guided group discussions to immersive media viewing would address both of those

concerns especially in education where it is recommended that, as with any other tool, virtual reality be contextualized as only one piece of a comprehensive pedagogical message (Jowallah et al 20).

Motivated and inspired by Green et al's reception study's takeaways, my initial media review transformed into an informal auto-ethnographic reception study method. I watched over 35 pieces, enumerated and commented in Appendix 1, and carefully documented the components that most affected my impressions. This process allowed me to critically examine and put into perspective the different arguments for, and criticism of VR from practical and theoretical standpoints, with an eye towards its pedagogical potential as part of an unsettling process. By experiencing pieces in a wide spectrum of production budgets, purposes and viewing settings, this auto-ethnographic approach prompted a reflection on the accessibility of both the creation, production and the viewing experience. It also allowed me to pinpoint what aspects of the medium would be pertinent and realistically transferable to the participants of the Circle Visions immersive media workshop.

Three broad categories/attributes stood out as significant factors as to whether I enjoyed each piece and/or whether it had any sort of lasting impact on me: the viewing context, the immersive affordances, and the content of each piece.




	<p>1. Physical environment:</p> <ul style="list-style-type: none"> • How much did I have to pay to see this? • How sophisticated are the headset and headphones (can I see or hear things happening outside the headset)? • Can I easily turn around to see all around me (am I sitting on a swivel chair)?
	<p>2. Immersive affordances:</p> <ul style="list-style-type: none"> • Is the 360° environment leveraged? • Is there a clear advantage to this piece being immersive vs. not immersive?
	<p>3. Content engagement:</p> <ul style="list-style-type: none"> • Am I provided with contextual information (or do I have previous knowledge) on what I am experiencing? • Am I seeing this with someone I can exchange with afterwards?

Table 1



PHYSICAL ENVIRONMENT

- **How much did I have to pay to see this?**
- **How sophisticated are the headset and headphones (can I see or hear things happening outside the headset)?**
- **Is someone helping me set them up?**

These three variables are heavily correlated. My most comfortable viewing experiences were at Centre Phi, a state-of-the-art facility in Montreal. Each film has a designated spot, a thematic decor and someone helping you put on the headset and the headphones. Accessibility is not a given: a 25\$ ticket will give you access to between five and thirteen short films, and le Centre Phi is fairly out of reach to most people. Le Festival du Nouveau Cinema is a different venue that has attempted to bring VR to a wider public. Its events were free and showcased pieces not otherwise available. One of them was held at a university and the other at a mall. Although the experience at the mall was distracting and less appealing, it did make the technology financially and physically accessible to a much wider audience. Finally, I also watched a few films at home on Youtube, using a Google Cardboard headset and earbuds. This was inexpensive, but the quality of the image and sound was low. I also had to hold up my headset with my arms (which highlighted the poor results of my daily push up rituals). This affected the sense of presence key to immersive media's potential.

- **Can I easily turn around to see all around me (am I sitting on a swivel chair)?**

Being able to turn around easily, whether by sitting in a swivel chair, or standing in a closed-off space that felt safe allowed me to explore the 360° environment without being physically distracted. Although very simple, this is one of the aspects that proved most frustrating when absent.

There is a tension between making the technology accessible while still offering a quality viewing experience that mobilizes what immersive media proposes to offer. However, the compromise as to quality would not be as noticeable for viewers for whom this is a new experience which means poorer quality headsets could still be adequate depending on my purpose. An optimal environment for me to showcase films, whether it be at the end of the Circle Visions workshop or as the basis of my study guides, would be quiet, comfortable, physically safe and use swivel chairs.

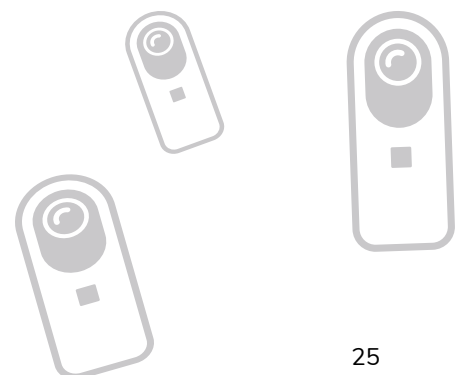


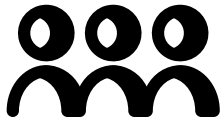
IMMERSIVE AFFORDANCES

- **Is the 360° environment leveraged? Is there a clear advantage to this piece being immersive vs. not immersive?**

Some of the pieces I watched could easily have been produced as 'flat' films. Immersive media's strength lies in its physical and spatial abilities. If these were not leveraged, drawbacks such as having to travel to experience it, the weight of the headset on my head, a certain sense of overwhelmingness were not 'worth it' and became overly distracting. Other affordances such as interactivity within the pieces were huge pluses but again, only if used in a novel and pertinent way. For instance, one piece asked me to press buttons to move the story along, but the lack of choices meant it didn't really justify having to hold two controllers for the duration (Dr. Who: The Runaway). Another one used your movements to progressively illuminate where you were which built a huge sense of cohesiveness between you and your environment. In that case, the controllers contributed to immersive media's sense of embodiment (Unceded Territories).

These basic conclusions informed how we guided the Circle Visions participants in the construction of their works. For instance, in my work with Karen on *Langu* *Leçons*, we exploited the spatial element by strategically placing Innu-Aimun words all around the space. It was also important that she moved through her space so the viewer would have a reason to look around and explore the immersive environment. This was also a financially and technologically accessible way to create a type of interactivity between the piece and the viewer. Pedagogically speaking, the need to exploit the space-based component of immersivity relates to my reflections on its potential as part of pedagogical practices connected to space, place and embodiment.





CONTENT ENGAGEMENT

- **Am I provided with contextual information (or do I have previous knowledge) on what I am experiencing?**

Some short pieces were purely meant as light entertainment. In those cases, a comfortable environment and a fun use of the immersive affordances were enough to provide a positive viewing experience. For other films that either seemed to try and convey a specific message or were of a longer viewing time, understanding the context and intent of what I was watching became important factors of enjoyment and impact, just as with any other type of media.

- **Am I seeing this with someone I can exchange with afterwards?**

I felt more connected to the material I was able to engage with socially after viewing. This doesn't relate directly to the use of immersive media per se, but underscores that the medium itself is not a panacea.

Providing some sort of contextual backstory can help ground a viewer's emotional and intellectual interaction with a piece. Because immersive films are generally shorter, and due to the ethical quandaries they can cross when centred around social issues topics, which would be my case, providing context to what you are seeing can significantly shape how you understand a piece. The social component, which also played a part in how I understood films, would take the shape of the study guides and provide conversation starters that would push students to engage with the material. My viewing experience again confirmed that just watching a piece of media, and especially one whose cathartic capacities can work against socially impactful purposes, is simply not enough.

Methodology

1. Unlearning/Learning

I am VERY White. I actually found an abbreviated list of what White privilege can afford (Johnson 120) and I could literally (in its original sense) check all of the boxes. I only significantly began to interact with people who didn't look like me in Cegep. It took living in Japan when I was 21 years old and being somewhat othered for me to realize that I was not the default (Goldberg & Levin 114) and that not everybody's experience was like mine. The first part of my method could thus be said to have informally started about ten years ago when I began to read, to listen, and to attend lectures that put into perspective the settler colonial knowledge I'd absorbed and inherited (Johnson D. 120; Wise 165). This was not just a matter of learning new things. Referring to Roxanne Dunbar Ortiz's concept of 'unforgetting' as a political act, Alexis Shotwell explains that the White settler identity rests on "active ignorance and forgetting" (37). Incorporating knowledge of continual settler systems of oppression into my identity as a White settler became a first act of unlearning/learning.

Expressly as part of this research project, I concentrated my efforts on understanding Indigenous paradigms of research and education and the roles settlers can play to disrupt settler colonialism. I put together a reading and discussion curriculum⁴ as part of a directed study that would prepare my co-instructor and collaborator Zaccary Dyck and I to help organize the Circle Visions workshop with a heightened awareness of our own privileges and assumptions. I also listened to podcasts, read books and attended conferences that allowed me to significantly interact, deconstruct and understand my identity as a White person and a settler. Although anti-racist and other forms of activism cannot be equated with decolonizing work (Tuck & Yang 3), the responsibility

⁴ A copy of its content can be found in Appendix 2

for White people to educate ourselves is an essential first step to any kind of respectful intervention in systems of oppressions (Walz 107). Coming to terms with my role as a White person and a settler was both a result of, and necessary to, my work with Indigenous filmmakers (Dion Teachers as Allies 01:51). If I were to foster a creative, welcoming and formative environment, I wanted to take into account how to mobilize and adapt the different power dynamics between us, and in what context it was important to do so.

2. Holding Space in a context of Co-creation

After spending a semester learning how to use a 360° camera and reviewing literature on decolonization, Zac, my MA supervisor Liz and I designed the Circle Visions immersive workshop where we would be working with First Nations filmmakers. This was the fourth workshop of a series that began in 2016 with the collaboration of Québécois and Indigenous film studies scholar Kester Dyer. The workshop has been organized as a partnership with Wapikoni Mobile, an organization that sends mobile units out to remote Indigenous communities and provides them with tools and mentorship to produce short films. Circle Visions aims to offer Wapikoni graduates a safe space for filmmaking co-creation in a university setting. The workshops are intensive, last one week and typically end with a small showcase of participant's works. There is generally about one mentor per participant. We've also begun inviting an Indigenous mentor or artist in residence to counter the whiteness of our team and approaches. In addition to my role as a mentor, I have typically assumed the tasks of creating a sense of belonging. This has included reaching out to participants in advance, consulting on meals and other small welcoming gestures. You will find some of the material created for the Circle Visions immersive workshop, including the welcome package and the exhibition program, in Appendix 3.

Logistics, food and care

I understand logistics as an important tool in the creation of safe(r) and caring creative spaces. It's been my experience that a welcoming environment means providing a clear structure while emphasizing its flexibility and always cultivating space for personal connections to emerge through informal exchanges. This begins even before a workshop begins. For example, I verbally connected with everyone prior to their arrival to speak of transportation, food and goals, and to make sure they all arrived having 'met' at least one person beforehand. This also allowed me to connect our expectations as organizers to that of the participants.

Indigenous facilitators speak about food as a way to reclaim pride in culture and as a healing process (Red Chef Revival). In our context, we decided it was important to hire an Indigenous caterer and use meals as a way of coming together and create a sharing time of connection. The food itself was not always a success, but it began a really fun and wonderful conversation about their own practice of cooking (the best way to cook bannock was definitely a point of argumentation)! The quality of the food wasn't the point. Being attentive was. Building these relationships was not limited to the workshop. I continued with small gestures like going out for bubble tea, liking social media posts, and keeping in touch with postcards.

Some of what we tried to do during the workshop actually didn't work, and I absolutely put my foot in my mouth at least once, but working to create those relationships created a space to grow and adapt alongside our participants.

Reciprocal knowledge-making

Because French was both of our first languages, Karen Pinette Fontaine, a young Innu filmmaker and folk singer from Uashat mak Mani-utenam and I drifted towards each other as creative companions. Since she is in the process of learning Innu-Aimun, she wanted to make a piece on the topic of language. We looked words up together in an online dictionary and she contacted members of her community for indications on pronunciation. I have always been confused by the historical lack of sensitivity towards the loss of First Nation languages in Québec, where any indications of a decline or an increase in French usage still make the news (Croteau; Dutrisac; Leduc). I'm fascinated by the impact language has on our identity. Working with Karen on this topic and participating in some of the background research became the type of reciprocal knowledge-making outlined by Kirkness and Barnhardt in "First Nations and higher education: The Four R's – Respect, Relevance, Reciprocity, Responsibility" (11). I may have been the person transmitting technical abilities, but our mutual engagement and her creative process allowed me to significantly engage with the linguistic implications and complexities of the status of Indigenous languages in Québec. More straightforwardly but much less successfully, she also taught me some pronunciation guidelines of Innu-Aimun. Although we were able to finish a solid first draft, I organized a follow-up session with Karen to polish the film with special effects that fully made use of the immersive medium. We worked one-on-one for a week in January where I hosted her at my apartment (where she now lives as my roommate!) and bonded throughout over pictures of my sister's new puppy. We're also still hoping to translate it into English once we have access to powerful enough computers.

Kim Tallbear offers 'Standing With' as a framework for breaking down the formal divisions and power dynamics in the relationships between researchers and participants (4). She stresses the importance of caring, of being invested in the projects

and futures of those whom you are studying (5). Although there was never really a case of me ‘studying’ our participants (Naomi, Craig, Mélina, Daniel and Karen), I still interpreted this concept through some of the aforementioned micro-gestures of care so that our collaborative space was continuously and reciprocally beneficial. Through small attentions such as pre and post-workshop emails, favourite meals, introductory circles or Christmas cards, this became more than a solitary research encounter, but fulfilling and ongoing relationships. This year was Circle Visions’ fifth workshop and many of our participants returned for more than one, which we hope indicates that the trust between the filmmakers and the organizers is continuing to grow.



Figure 4

Prioritizing both process and final project

We initially wanted to make sure our pedagogical approach was process-oriented, mirroring some of the tenets of Indigenous pedagogies but most of our participants were incredibly goal-oriented. Being responsive and providing a sense of accomplishment in whatever shape it took for them thus became part of our responsibility as organizers. The resulting works were created in five days and are

astounding. Karen's piece on the Innu-Aimun language was intended to go to SXSW (which was unfortunately paused as a result of COVID-19). Naomi Condo from the Gesgapegiag First Nation and Craig Commanda, an Anishinaabe musician, worked as a team to create *Full Circle*, a reflection on the generational impact of cultural suppression. Their piece was included in the imagineNATIVE Film festival of that same year. Mélina Quitich Niquay, a young Atikamekw from Manawan, created *Metaperotin* which went on to win the Digital + Interactive Early-Career award at the 2020 imagineNATIVE. Daniel Brière, a Wolastoqiyik (Malécite) filmmaker and Cegep professor, audited the workshop and has been in touch about how he hopes to incorporate what he learned in his future teachings. Our artist in residence Daphné Boyer of Métis descent worked alongside her assistant to adapt her visual digital piece into an animated immersive environment. We believe that the newness of the medium contributed to the interest in featuring work by Indigenous artists in a range of contexts.

3. Creation as method for personal inquiry and creative unsettling

One of the fundamentals of research-creation is the essential need for researchers to undergo or significantly interact with a process of creation in order to satisfactorily explore a topic (Chapman & Sawchuk 6). I began working on the script for what would become my own immersive film around the same time as the Circle Visions workshop, using the same creative and technical principles I was using with Karen. Her film drew on her lived experience to convey how the protagonist's location affected the construction of her identity. My film brings viewers to a series of streets in Montreal where a narrator addresses them and explains the story behind the name of the street. Although the iterative process it would go through would transform it significantly, *Une Histoire de Rues* still explores the tension between who we are and where we are, and some of the hidden impacts of colonization.

Attempting to encapsulate some of the identity shifts I'd been working through for the past ten years in a short film was also groundwork for the last stage of my project. I began the script in response to an assignment given to me during a conference where I was asked to write what being a settler meant to me. This creative process required me to repeatedly assess my position as a White settler living in Montreal. Through many revisions and consultations around the script with friends as well as my supervisor Liz Miller, I had to actively confront, discuss and reflect on my identity. Doing so forced me to discern helpful avenues of reflection, identify potential points of contentions, and remind me of the constant need for empathy and patience during the kind of learning and unlearning process I would be asking of others through the study guides I was constructing for high school students.

4. Outreach and impact: plans to use the films to unsettle future audiences

The final deliverable of this short film project was intended to be a series of study guides for high school-aged students that put into conversation Karen's piece *Langue Leçons* and my own *Une Histoire de Rues*. After watching the films, I would lead students through group conversations and at least one practical exercise that would offer them the opportunity to reflect on their identity as it relates to settler colonialism. Although COVID-19 prevented me from conducting the curriculums, I was able to use their prompts to accompany a presentation held at The Hive, a public lunch space on campus, during the 2019 First Voices week at Concordia. Attendees were able to watch all of the Circle Visions' workshop films as well as *Three Sisters*. *Three Sisters* introduces Myriam Landry, the Agente Culturelle of the First Nations' gardens in Montreal, who tells us the story behind the crops of corn, squash and bean (the 'three

sisters') and shares her aspirations for the role the garden might play for First Nations youth living in the city. The event was run in tandem with a meal that used the ingredients featured in the *Three Sisters* film which provided some initial context to at least one of the films. Collaborating with Indigenous hosts was another step in incorporating food as a ceremonial experience making space for connections. Immersive media was just one pillar of this event.

This was an occasion to run through some of the practical aspects I would have to consider if I conducted workshops around my study guides in schools: How much help do people need to manage the headsets? How much time is necessary to clean each headset or adjust the swivel chairs? How many people are needed to make the whole process efficient? I was also able to speak to some viewers after they'd seen the pieces to understand what they focused on and what they retained while watching them. These few conversations confirmed some of my expectations. Regardless of the practical challenges (high noise level, waiting time and some technical difficulties), people new to immersive media were excited by what they'd seen. Health restrictions and the impact of COVID-19 on the timeline of this project have not allowed me to explore additional in-class screenings in the way I had initially planned. Instead, I plan to distribute the study guides so they can be used in person as well as online to accompany the Circle Visions films.

Discussion

Setting out at the beginning, my goal was to evaluate the pedagogical potential of immersive media when used in an unsettling process. I wanted to see if its embodied capacities could help settlers such as myself reconsider our positions in relationship to the land and to Indigeneity. I wondered what kind of work I and other educators might need to ethically contribute to this process alongside our settler peers. In this section, I discuss the outputs that best serve to answer these questions. Namely, *Une Histoire de Rues*, a script for an immersive piece I would create; the study guides I wrote to accompany it and *Langue Leçons*, the film created by a Circle Visions participant Karen; and my own unplanned real-life experience in a classroom that confronted my theoretical assumptions which stands in for my inability to test-out the study guides due to COVID-19.

1. *Une Histoire de Rues*: a creative response to the White settler identity

As francophones, we often strategically position ourselves as colonized colonizers (focusing on the former). We use our ‘colonization’ by the English to cement a kind of ‘native’ status — or at the very least, we like to think of ourselves as ‘nativer’ than our anglophone counterparts or our ancestors from France (Vowell 44). *Une Histoire de Rues*, which I first privately referred to as ‘untitled sadness settler story’, was an exercise I used to reflect on yearning for a native-like legitimacy, thwarted by the (fortunate) failure of the settler colonial project (Tuck & Yang 9).

Although it was very easy for me to nod along to settler colonial scholar Lorenzo Veracini’s assertion in *The Settler Colonial Present* that settlers must embrace their exile but deny sovereignty over the land by creating a “nonsovereign-nonindigenous [sense of] belonging” (109), the actual process of doing so, of changing the “ed” into an

“er” so I could authentically speak of the type of relationship a settler might build and have with stolen or colonized land, was a more strenuous process.

I began with a fierce hatred of the term settler. It made me squirm in my chair, (un)subtly change conversation topics and look away while internally singing Charlevoix songs about his love for Québec. It made me sad and it made me angry. It is understandably tempting to disregard and diminish the internal turmoil that results from having to face your own privilege when those with less must navigate real-world impacts. Nonetheless, my personal experience has been that coming to understand one’s position in order to be able to harness it is a heuristic, iterative, and clumsy process (Hiller 432) that is crucial and unavoidable when trying to ethically work in parallel with Indigenous knowledge systems (Kovach et al 490). Being confronted, or ‘called out’, and confronting others on problematic behaviours is part of that process (Bacon 446), and so can being ‘called in’ and guided by peers with potentially more experience (450). The latter is what I wanted to harness in the ‘unsettling with VR’ curriculums I was hoping to conduct with high school students.

Quoted in *Pulling Together*, a guide intended for systemic Indigenization in post-secondary education, Potawatomi-Lenapé educational scholar and associate professor at York University Susan Dion stresses the importance for teachers to understand their relationship to Indigeneity before addressing it in class so as to avoid reifying harmful tropes about Indigenous people or Indigenous ways of knowing (Dion as qtd in Allan et al 15). She also suggests that those unfamiliar with Indigenous studies and content need time, opportunity and support to be able to integrate them into their practice (Dion “Teachers as Allies” 00:36).

Embodying a fully-fledged settler identity would be crucial to my potential role as a facilitator. As I can attest to after working as an art teacher during COVID-19, it's pretty darn difficult to teach something when you're only halfway into figuring it out for yourself (a lesson my students reminded me the hard way when I tried to teach them how to draw marine animals). If I were to ask students to think through their identity as settlers, especially when the term is linguistically⁵ and scholastically foreign to them, I wanted (and needed) to be able to speak from a place of knowledge and self-awareness. Leanne Betasamosake Simpson states that "I am responsible for my thoughts and ideas. I am responsible for my own interpretations" (11). Being able to situate myself when speaking of challenging realities that are not my own, and relate back to my own process is by my standards the only way I could ethically and honestly serve as an educator.

To do so, I began working on the first iteration of an emotionally charged bilingual script called *Being a Settler*.

"I feel at home en français. I feel at home en anglais.

I feel at home où d'autres furent déracinés pour me faire place, héritière ignorante d'une colonisation génocidaire qui dément mon droit acquis à la terre dans laquelle j'ai grandi.

I'm at home in a language that refuses to name what I am.

Settler, ça se dit comment en français?"⁶

⁵ The French word for settler is 'colon', which was long and is still used as an insult synonymous with stupid or crass. Its closeness to 'colonisateur' also makes it seem more transitory and action based than settler.

⁶ "I feel at home in French. I feel at home in English.

I feel at home **where others were displaced so I could take root, an ignorant heiress of a genocidal colonization that refutes my right to the land I grew up in.**

I'm at home in a language that refuses to name what I am. **Is there even a word for Settler, in French?"**

To accompany this verse, I had planned to use footage of the John Macdonald monument being crossed out by a blood-red line. Although I still think it's a pretty legitimate piece of poetry, it quickly became obvious to me that its melodramatic tone might reflect what I was feeling at that moment, but remained very overindulgent. And yet, as a first step, these poetic meanderings allowed me to enunciate my discomfort towards a part of who I am, and to let loose my White guilt in all of its emancipated glory.

White guilt is and has been criticized as inefficient, self-aggrandizing, and distracting (Bacon 451), but it can still be a valid step that for many of us cannot be skipped when facing a history of violence that benefits you (Golberg & Levin 112). In my case, having a creative space where I could sit with the injustice of having to reconfigure what being Montréalaise meant because of actions I'd had no control over — or taking the time to feel-bad-without-feeling-bad-about-feeling-bad-because-I'm-bad — allowed me to actually let go of my earlier resentment and defensiveness and progress to a more critical understanding of my position in the settler colonial system.

Being a Settler thus became *Une Histoire de Rues*, a script translated in both English and French that uses the 2019 Amherst street's name change to Atateken as a prompt to look at street signs as historical reminders 'hidden' all over the city⁷. If "decolonization [is not] a solution but a practice" (Veracini 109), then *Une Histoire de Rues*' final script serves as an artistic gesture that attempts to problematize the naturalization of "settler colonial relationships to place[s]" (95). The final iteration of this piece will be a 360° piece viewed through a headset where the sense of presence provided by an immersive environment will help emulate a physical visit. Instead of experiencing a piece of land as a geographical landmark, the viewer will experience

⁷ See Appendix 4 and 5 for a copy of the script in English and in French

territory as story. The streets and their names transform from utilities and mementos of the past to ongoing building blocks of the present.

Critical race scholar Sherene Razack suggests that “[S]ubjects come to know themselves in and through space and within multiple systems of domination” (17). Likewise, I wanted my piece to prompt viewers to think about how systems of domination play out in and around a street sign. In *Une Histoire de Rues*, I narrate the story behind the name of the street to the viewer. This is an attempt to unsettle what is familiar (7) and to notice how the space we are in continuously informs and shapes our collective identity (7). Complicating space as a signifier of identity might be a tool for White settler societies to untangle and address the settler colonial heritage via one of its more understandable contemporary components (5). It certainly was for me.

Dolores Calderon, an interdisciplinary scholar in youth, society and justice argues that understanding how settler colonialism frames our relationship to place, including how the names assigned to our surroundings participate in the legitimization of Indigenous removal, is critical to a successful place-based education practice (26). Personally, exploring and visiting sites, uncovering histories, and performing in the streets I grew up in brought into focus the patriarchal and settler colonial frameworks upon which the city is built. Concurrently, I learned of some of the city’s efforts in introducing more female,



Figure 5

Indigenous and racialized figures in its street names (Toponym'Elles, Commission de Toponymie). These help complexify the narrative of Montreal's collective identity but are most noticeable in new developments on the outskirts of the city.

Une Histoire de Rues brings viewers to six different locations on the island and introduces them to the history behind the name of the street they are on. Its introduction associates the city with its streets and ends by emphasizing the invisible-yet-hypervisible framework that toponymic choices can create. I chose the streets through a mix of personal interest and historical relevance to the settler colonial context, with all of them spatially or narratively connoting a type of power imbalance. For instance, the streets named after Indigenous historical figures — Donnacona and Myra Cree — are small and almost unnoticeable. Jean-Desprez, a female author with a male pen name, is a quiet residential avenue, and Frontenac, a governor-general, is a big, dusty and busy street.

As a film, *Une Histoire de Rues* focuses on some of the choices that construct our identity, which might empower viewers to consider what unsettling might look like for them and for the physical space they are located in. The study guide I created for *Une Histoire de Rues* focuses on the construction of settler colonialism rather than its impact. Using it, students are guided to learn from the position they occupy: unsettling can only really be possible if the initial 'settling' is acknowledged. For me, putting forward and sharing the settler colonial grounding of Montreal's toponymic environment became part of my unsettling work. *Une Histoire de Rues* became an opportunity to defamiliarize everyday locations and spatial practices and begin to reflect on my symbolic positions within those spaces. Using a creative endeavour to engage with settler colonialism had the benefit of giving me space to receive

constructive feedback that didn't feel like an attack on my foundational identity, but still provoked impactful reflections and engagement that led me to its deconstruction.

A temporary version of the film is available below. The final version of the movie which I will hopefully film once health restriction lift would use 360° footage. The narrator would be speaking directly to the camera in each location, and the sound would be much MUCH better (but would still involve cityscape noise)



Figure 6

Click this link to view the video: <https://vimeo.com/536084651>

2. Evaluating the potential of immersive media in schools

In this section, I discuss the process of writing a student guide to *Langue Leçons* by Karen Pinette Fontaine⁸. I evaluate my working process, the piece itself and the subsequent guides against the promises and limitations of immersive media. Looking back allows me to refer back to one of my research questions and consider whether virtual reality could be considered an appropriate and ethical tool of disruption within a settler colonial educational institution.

There is much excitement about the potential of VR to reduce negative perceptions of others (Yee and Bailenson 2) but this can also be accomplished by simple activities. In a study comparing how much money people would donate following either watching a VR film where a young girl walked to provide fresh water to her family or participants walking for ten minutes while carrying two heavy water jugs, researchers found no difference in the amount donated by participants following either experience (Hargrove and al 7). I would argue that paying someone to be part of a study and then checking whether they're willing to part with what they've just earned might not be an accurate measurement of impact, but that is another argument for another thesis. The hype surrounding immersive media as 'the ultimate empathy machine' also seems to be somewhat of a self-fulfilling prophecy, with participants' anticipation to experience more empathy being a driving force in them doing so (3). Still, when used with an unsettling objective, immersive media has the unmistakable advantage of being currently understood as an 'innovative', 'immersive' and 'new' technology.

Importantly, I would suggest that featuring VR projects by Indigenous filmmakers works against the settler colonial impetus of reducing Indigenous peoples to relics of the past or victims of modernity. And yet, when I was coming up with discussion

⁸ The English and French scripts of this piece can be found in Appendix 6 and 7

questions for *Langue Leçons* and the other films from the Circle Visions workshops, I still found myself focusing on narratives of victimization. This struck me after a conversation with Elie John Joseph, the Ambassador Mobilization and Leadership Workshops Coordinator at Wapikoni Mobile during an ineffective unsettling workshop. This workshop was bordering on questionable and (for me) stepped into actual dubious territory when we were given play dough and asked to ‘represent our relationship to the land’. I cite this to underline that while I am advocating creative methodologies to unsettle, I do not consider them inherently successful. Elie John mentioned that he sometimes found it frustrating that a lot of the schools he worked with only wanted to feature films about residential schools, loss of culture and so on. He was hoping to push for them to present workshops on the cultures and new projects of the different communities Wapikoni had worked with. This provoked a huge shift in what I understood as ‘important’ information to transmit. Retroactively, I believe my instinctive inclination, and that of the schools, is a corollary of settler guilt, outlining the importance of understanding how our position as settlers frames our relationship to Indigeneity. By continuously referring to Indigenous peoples only in relation to us, we reinforce a settler colonial and Eurocentric ideology (Dion “Braiding Histories” 65). It’s also possible that since Canada victimized First Nations as a whole, the narrative of victimhood is easier to speak of than the specificity of Indigenous peoples, cultures and resurgences.

Susan Dion writes about an activity where an educator asked students to write letters to Dion’s mother responding to her testimonial about going to residential school. She explains that despite the educator’s best intentions, the letters were condescending and out of touch with the realities of oppression her mother had faced. She writes “empathy has limitations and there are dangers when we ask students to pretend to be aboriginal people because they cannot know what it feels like (...) to bear that

history” (“Rethinking Current Practice” 00:48). A purely empathic response to the “historical oppression” of Indigenous populations in Canada is also cautioned by Megan Boler as quoted by Paulette Regan as “reducing the other to a mirror-identification of oneself, a means of rendering the discomforting other familiar and non-threatening” (51). And so despite VR being an asset in modernity, and because it relies on empathy, its pedagogical context (or lack thereof) should be considered as just as essential as experiencing the medium. In other words, the medium itself is a tool to be leveraged to provoke change, and not change-making in and of itself (Bailenson).

The need to accompany a VR film with a lesson plan with specific objectives is vital (American University School of Education). The goal of the study guides⁹ I wrote to accompany *Une Histoire de Rues*, *Langue Leçons* and the other Circle Visions films was for settler students to begin interacting with their positions as settlers. This was to be a first step in a process of unsettling, and the use of immersive media would be a disruption of the settler colonial narrative of Indigenous obsolescence.

Langue Leçon, which I built the second study guide around, is a thoroughly modern piece. Its protagonist is a young Innu woman living in a big city. She waits for the bus, she does her groceries in a busy Montreal street, and her accent is as contemporarily ‘Québécois’ as it gets. We follow her through a series of vignettes as she narrates her attempts to learn her language. She speaks of being teased by her community for her lack of knowledge and how the city affords her an almost safer place to learn Innu-Aimun, but also fragilizes her sense of identity. It empirically avoids the pitfalls decried by Nakamura and Nash: the viewer does not embody the protagonist (Nakamura “Laboring Infrastructure” 09:30) and the visuals do not engulf users in suffering they

⁹ See Appendix 8 for *Une Histoire de Rues*’s study guide and Appendix 9 for *Langue Leçon*’s study guide. All study guide can also be found in the accompanying booklet.

could make their own (Nash 120). Its author also remained in control of the narrative throughout the creation process. The text and the visuals have the potential to provide insightful and complex reflections on heritage and identity as they relate to location and language. However, specifically in light of the examples given by Susan Dion and my own experience as a teacher (which I'll extrapolate in the next paragraphs), this in itself might not be enough to avoid reinforcing very deep settler colonial tropes, such as manifest destiny, that point to the inevitable decline and decimation of Indigenous peoples.

Reassessing the discussion questions included in the study guide I had planned around *Langue Leçons*, I am not completely convinced its structure bypasses those risks. The discussion questions attempt to outline more personally the impact of loss of language and make parallels between institutional attitudes towards French vs. Innu-Aimun. If I were to actually lead a discussion, I would find complementary material that would put into evidence the potential for resurgence, such as some of Karen's music in Innu-Aimun¹⁰. I could also include some material on the Atikamekw community who did not experience a generational linguistic rupture so as to avoid sweeping conclusions as to the disappearance of Indigenous languages. From the point of view of an educator, this reinforced to me the importance of having a safe space to make mistakes while avoiding potential harm. As both Freire (90) and Dion ("Teachers as Allies" 01:45) suggest, staying humble as we reassess and adapt together might be the only way forward.

Please see accompanying booklet to peruse the study guides for all the Circle Visions film in detail.

¹⁰ Karen's music can be found online under her artist name 'Kanen'

3. Experiential learning: teaching in my own classroom

In January 2020, I began talking with a private high school to test out the study guides I had designed. In my initial discussions, the principal and I considered conducting them during history classes. History classes were when I first significantly learned about colonization and when my ideas about Indigenous peoples in Canada (or 'les amérindiens') began to stratify, which is why I thought gearing my study guides towards that subject would be most efficient. Instead of having to shift their understanding of colonization as a thing of the past, students would already have the opportunity to integrate it into their understanding of the present. Although the history teachers felt it wouldn't fit into the material they were covering, the media and communications teacher offered to let me conduct the workshops with her students. We scheduled them for March 2020. As you can probably guess, the workshops were cancelled due to the global pandemic.

Ironically, however, I was hired at the same school in September and after a series of unexpected events, became the main arts teacher to 200 thirteen and fourteen-year-olds. Although the workload significantly affected my progress as an MA student, it also provided me valuable insights as to how naive my initial project was. Despite being unable to test-drive it, I was able to put my previous theoretical research in perspective with my new experience teaching in a structured pedagogical environment that is very different from what I'd been used to. I've been designing summer camp activities for over 15 years and some of the techniques we use are in line with tenets of critical and Indigenous pedagogies. This made me confident in my ability to plan and lead a workable session, but being immersed in a milieu focused on schooling and not necessarily education turned out to be even more different than I had anticipated. It allowed me to observe the ways alternative pedagogical methods might or might not

be included in a regular curriculum, and review the kind of logistics I thought were needed to put the study guides in place.

High school classes typically last between 50 minutes and an hour long and are usually made up of thirtyish students. Although I already knew this, being actually faced with organizing a schedule with everyone watching one (or two!) three and a half minute movies while using headsets that need to be cleaned and set up for each student was a challenge, especially if we were to begin with contextual information and follow up with engaging discussions. Google Cardboard viewers first seemed like a practical alternative, despite their lower immersion factor. However, each viewer requires a cellphone, which students are typically not allowed to bring in class, and an internet connection. Cardboard viewers must be connected to individual phones, a process that is different depending on the types of cellphones. Since my experience was that being able to easily turn around is one of the key external factors that contribute to a successful viewing, as many swivel chairs as headsets would also need to be provided. These are not always available even in universities and heedless of the apparent wealth of the school I am working at, I've only encountered swivel chairs in teacher's offices. Watching the films on computers was another alternative. Students would still have agency as to where to direct their gaze, but although one study found no significant difference in the impact of an immersive vs. non-immersive viewing (Archer & Finger 39), it wouldn't provide the same sense of presence (a single study is also little to go on). Computers are usually easier to come by than headsets, but as the pandemic and ensuing distance learning have demonstrated, they are not always or equitably available (Robillard). Trying to create a timetable that would stimulate a deep level of engagement while accommodating for the time and human assistance required by the technology proved to be a struggle.

My newly found insider status also made me a witness to the impact of a banking style paradigm of education (Freire 73) on young students. As a replacement arts teacher in a COVID-19 context, I had more leeway in my approach than other teachers.

Unexpectedly, incorporating alternative pedagogical methods with students proved daunting not for me, but for them. Due to the pandemic, schools could no longer offer the extracurricular activities that serve as a different type of motivator to students. In a system and a context where students are almost solely motivated by grades, I found it hard to justify the importance or the value of process or auto-constructed pride, especially when so many other classes and teachers requested their attention.

Suddenly trying to engage students on a different level also sometimes seemed to cause anxiety or prompt disinterest. As well, there is a wide disparity in student comprehension when it comes to social issues. The dissonance between their rhetoric and their behaviour led me to wonder how explicit the study guides would need to be for this particular age group to grapple with such an expansive concept as settler colonialism.

I had initially hoped that even although structural interventions would be optimal, punctual interventions such as using the Circle Visions pieces alongside the study guides might allow for radical interference in the settler colonial educational project. Providing settler students with multiple, self-contained, innovative learning experiences throughout their schooling could be a starting point in challenging their appropriation of 'conventional' knowledge transmission. In that case, I'd initially thought my position as an outsider who didn't have to follow institutional codes as strictly as teachers would be an advantage, even with the challenge of creating positive reciprocal relationships in a very short span of time. This might still work, but I believe most students would benefit from being guided by people they've been able to create relationships with on their own terms, and whose teaching boundaries they are familiar with. A different idea,

but one that lengthens the time it would take to execute the project, would be to ask for small interested groups of students to participate in a more involved process beforehand and empower them to lead the conversations with their peers. When constructing my project, I failed to consider the potential of this kind of extracurricular activity, whose choice also respects a student's educational leanings.

Alongside some of the conclusions as to the need for complex engagement by teachers (Macdonald & Markides 229-30; Dion "Braiding Histories" 184-5) and students when speaking of settler colonialism, this leads me to surmise that the unsettling processes I built might actually be more efficient in settings such as day camps, youth centres or after-school programs. This might allow for smaller groups of students, smaller need for equipment, longer follow-ups and more opportunity for reciprocal engagement than in hour-long sessions with potentially uninterested students. Otherwise, despite some of the structural obstacles, a willing teacher with the opportunity to connect with the material and develop a program throughout a semester or a school year would best be positioned to use them.

Conclusion

“Sometimes I want to shake people and say, ‘Being non-Indigenous is okay’”

Chelsea Vowel

My initial goal was to evaluate how immersive media could unsettle colonial logics in an educational environment and subsequently, how the medium could ethically be wielded for this purpose by a settler. As I moved forward, this project mirrored what I have found unsettling to be: iterative, confusing, and ongoing. Its many stages and tangents make it hard to summarize but ultimately, its underlying intention is and has always been to construct a better way for me (and others) to be a settler.

My experience and research on immersive media as part of a process of unsettling brings together new technologies with a critical perspective on decolonization. It reiterates that media and content, whatever their affordances and pertinence, are only one part of thinking through our educational perspectives when it comes to Indigeneity. I also believe it models a process a settler like myself might undertake to come to terms with the responsibilities and accountability that comes with being a settler. During its course, I attempted to unsettle my own understanding of identity with a creative project. I assisted my now friend Karen in making an immersive film that grappled with her identity and language, and I built a framework for other settlers to think through the impact of settler colonialism.

Even as a best-intentioned educator, the settler colonial framework imbued my thought processes as I constructed the final outputs of this research-creation project. This reinforces the importance for settlers hoping to work towards unsettling with others to stay curious, humble and willing to educate ourselves. Creative praxis provides a key

avenue to do so. This, as well as continuous self-assessment and experimentation will be key to our ability to work within an alternative pedagogical paradigm, to create ethical curriculums and to understand what we, as ourselves, can bring to the conversation. Using a tool such as immersive media makes sense within that process. My experience and research on the medium as part of a method of unsettling has convinced me that the its defiance of the trope of 'the dead Indian' and its innovative use by Indigenous filmmakers disrupts the settler colonial imagery. In this particular moment, it can provide a new and impactful experience to students, but should only be used as one part of a strong, pondered and layered process. An integrated pedagogical context would be as important for it as for any other kind of material.

Continuing on, I will share the study guides I have created as an accompaniment to people watching *Langue Leçons* and the other Circle Visions films. I've noticed an influx in coverage of local news in relation to Indigenous people in Québec and would like to incorporate these into my study guides. When health restrictions are lifted in schools, I will suggest the 360° films I helped facilitate and their accompanying teaching material to the teachers I am working with now.

My biggest fear when I began this MA was that it would be pointless, that I would spend two (now three!) years working on something that would lie in an archive without purpose or value. That may still be the case, but I write these last words with the conviction that this project has allowed me to learn while building long-lasting relationships that are in sync with the situated, responsive and relational philosophy I advocate. The process has allowed me to speak frankly with other settlers who are also eager to 'just be and do better'. I made and continue to make mistakes but I am definitely getting better at learning from them.

Works cited

American University's School of Education. *Virtual Reality in Education: Benefits, Tools, and Resources*. <https://soeonline.american.edu/blog/benefits-of-virtual-reality-in-education/>. December 16, 2019. Accessed 31 Jan. 2021.

Allan, Bruce, et al. *Pulling Together: A Guide for Teachers and Instructors*. Victoria, BC: BC campus, 2018. Retrieved from <https://opentextbc.ca/indigenizationinstructors/>

Anderson, Stephanie. "The Stories Nations Tell: Sites of Pedagogy, Historical Consciousness, and National Narratives." *Canadian Journal of Education*, vol. 40, no. 1, Jan. 2017, pp. 1–38.

Antoine, Asma-Na-Hi, et al. *Pulling Together: A Guide for Curriculum Developers*. Victoria, BC: BC campus, 2018. Retrieved from <https://ecampusontario.pressbooks.pub/indigenizationcurriculumdevelopers/>

Archer, Dan & Katharina Finger. "Walking in Another's Virtual Shoes: Do 360-Degree Video News Stories Generate Empathy in Viewers?" *Columbia Journalism Review*, https://www.cjr.org/tow_center_reports/virtual-reality-news-empathy.php/. Accessed 23 June 2020.

Astle, Randy. "'Our Culture Is in Our Language': Lisa Jackson on Her VR Film Biidaaban: First Light and Indigenous Futurism." *Filmmaker Magazine*, <https://filmmakermagazine.com/105184-our-culture-is-in-our-language-lisa-jackson-on-her-vr-film-biidaaban-first-light-and-indigenous-futurism/>. Accessed 2 Apr. 2021.

Bacon, J. M. “‘A lot of catching up’, knowledge gaps and emotions in the development of a tactical collective identity among students participating in solidarity with the Winnemem Wintu”. *Settler Colonial Studies*, vol 7, no. 4 (2017) , pp. 441-455

Bailenson, Jeremy, “VR Training Ideal for Dangerous or Impossible Experiences”
Interview by Julie Dirksen. *Learning Solutions*, 14 April 2019. <https://learningsolutionsmag.com/articles/vr-training-ideal-for-dangerous-or-impossible-experiences>

National Film Board of Canada. “About | Biidaaban: First Light.” National Film Board of Canada, https://www.nfb.ca/interactive/biidaaban_first_light/. Accessed 2 Apr. 2021.

Bissell, Alexandra & Lisa Korteweg. “Digital Narratives as a Means of Shifting Settler-Teacher Horizons toward Reconciliation”. *Canadian Journal of Education*, vol 39. no. 3 (2016)

Bories-Sawala, Helga Elisabeth & Thibault Martin (UQO), *EUX ET NOUS. La place des autochtones dans l’enseignement de l’histoire nationale au Québec. VOLUME 2.* Université de Breden, en Allemagne, 2020 Retrieved from http://classiques.uqac.ca/contemporains/Bories-Sawala_Helga_Elisabeth/Eux_et_Nous_vol_2/Eux_et_Nous_vol_2.html

Calderon, Dolores. “Speaking back to Manifest Destinies: a land education-based approach to critical curriculum inquiry”. *Environmental Education Research*, vol. 20, no. 1, 2014, pp.24-36

Chapman, Owen, and Kim Sawchuk. "Research-Creation: Intervention, Analysis and 'Family Resemblances.'" *Canadian Journal of Communication*, vol. 37, no. 1, Mar. 2012, pp. 5–26.

Conrad, Margaret. "A Brief Survey of Canadian Historiography". *New possibilities for the past: Shaping History education in Canada*, 2011 pp.33-54

Cogburn, Courtney. "Experiencing Racism in VR." TEDxRVA, https://www.ted.com/talks/courtney_cogburn_experiencing_racism_in_vr_courtney_d_cogburn_phd_tedxrva. Accessed 1 July 2020

Croteau, Lorianne. "Déclin du français : l'opposition dénonce l'inaction du gouvernement fédéral." *Radio-Canada.ca*, 22 Nov. 2020. <https://ici.radio-canada.ca/nouvelle/1751468/canada-francais-opposition-inaction-liberaux>. Accessed 28 Dec. 2020.

Currie-Patterson, Natalie & Kaitlyn Watson. "A policy, a 'priority,' an unfinished project: The Ontario First Nation, Métis, and Inuit Education Policy Framework". *Journal for New Scholars in Education*, Vol. 8, No. 1. Spring 2017

Cyca, Michelle. "Brave New World | Building a Critical Mass of Indigenous XR Creators". Emily Carr University of Art + Design, 9 May 2019. <https://www.ecuad.ca/news/2019/brave-new-world-building-a-critical-mass-of-indigenous-xr-creators>.

Dion, Susan. *Braiding Histories: Learning from Aboriginal Peoples' Experiences and Perspectives*. UBC Press, 2014.

Dion, Susan. "Rethinking Current Practice" *Professional Learning Supports*. 2014. <https://vimeo.com/90258626>.

Dion, Susan. "Teachers as Allies" *Professional Learning Supports*. 2014. <https://vimeo.com/90259404>.

Dutrisac, Robert. "Freiner le déclin." *Le Devoir*, 1 Apr. 2021. <https://www.ledevoir.com/opinion/editoriaux/597995/situation-du-francais-freiner-le-declin>. Accessed 2 Apr. 2021.

Éthier, Marc-André & David Lefrançois. "Learning and Teaching History in Quebec: Assessment, Context, Outlook." *New possibilities for the past: Shaping History education in Canada*, 2011 pp.325-343

Herrera, Fernanda, et al. "Building Long-Term Empathy: A Large-Scale Comparison of Traditional and Virtual Reality Perspective-Taking." *PLOS ONE*, vol. 13, no. 10, Oct. 2018, p. e0204494. *PLoS Journals*, doi:10.1371/journal.pone.0204494.

Fourth VR. <https://fourthvr.com/>. Accessed 31 Mar. 2021.

Freire, Paulo, "Chapter 2". *Pedagogy of the oppressed*. New York: Herder and Herder, 1972. pp.71-86

Goldberg, Susan B. & Cameron Levin. "Towards a Radical White Identity". *We Have Not Been Moved: Resisting Racism and Militarism in 21st Century America*. 2012, pp. 110-118

Green, David. "Virtual Realities: Immersive Documentary Encounters" Concordia University November 15, 2019 (UWE Bristol)

Green, David Philip, et al. "You Wouldn't Get That from Watching TV!": Exploring Audience Responses to Virtual Reality Non-Fiction in the Home." *Convergence: The International Journal of Research into New Media Technologies*, Dec. 2020

Greenwood, David Addington. "Place, Land, and the Decolonization of the Settler Soul." *The Journal of Environmental Education*, vol. 50, no. 4–6, Dec. 2019, pp. 358–77

Hargrove, Andrew, et al. "Virtual Reality and Embodied Experience Induce Similar Levels of Empathy Change: Experimental Evidence." *Computers in Human Behavior Reports*, vol. 2, Aug. 2020, p. 100038.

Hiller, Chris. "Tracing the Spirals of Unsettlement: Euro-Canadian Narratives of Coming to Grips with Indigenous Sovereignty, Title, and Rights." *Settler Colonial Studies*, vol. 7, no. 4, Oct. 2017, pp. 415–40

Johnson, Dean. "Weaving Narratives: The Construction of Whiteness". *We Have Not Been Moved: Resisting Racism and Militarism in 21st Century America*, 2012, pp. 119-136

Johnson, Eric. "Virtual Reality Can Make You Feel. Can It Also Make You Think?" *Vox*, 21 May 2015

Jowallah, Rohan, Luke Bennett, and Kathleen Bastedo. "Leveraging the Affordances of Virtual Reality Systems within K–12 Education: Responding to Future Innovations." *Distance Learning*, vol. 15, no. 2, 2018, pp. 15-26.

Kirkness, V. J., & Barnhardt, R. "First Nations and higher education: The Four R's – Respect, Relevance, Reciprocity, Responsibility". In R. Hayoe and J. Pan. (eds.), *Knowledge across cultures: A contribution to dialogue among civilizations*. Hong Kong: Comparative Education Research Centre, University of Hong Kong. 2001.

Kovach, Margaret, et al. "Stories of Diverse Identity Locations in Indigenous Research." *International Review of Qualitative Research*, vol. 6, no. 4, 2013, pp. 487–509.

Kuchera, Ben. "PlayStation VR Review." *Polygon*, 13 Oct. 2016, <https://www.polygon.com/2016/10/13/13246682/playstation-vr-review>.

Kuchera, Ben. "The Oculus Quest Is Virtual Reality's next Big Leap Forward." *Polygon*, 30 Apr. 2019, <https://www.polygon.com/reviews/2019/4/30/18521409/oculus-quest-review-virtual-reality>.

Leduc, Louise. "Le français comme langue maternelle en déclin, selon une étude de l'OQLF." *La Presse*, 29 Mar. 2021, <https://www.lapresse.ca/actualites/2021-03-29/le-francais-comme-langue-maternelle-en-declin-selon-une-etude-de-l-oqlf.php>.

Lewis, Jason Edward. "A Better Dance and Better Prayers: Systems, Structures, and the Future Imaginary in Aboriginal New Media". *Coded Territories : Tracing Indigenous Pathways in New Media Art*, 2014. p.55-78

Longfellow, Brenda. "Indigenous Futurism and the Immersive Worlding of Inherent Rights/Vision Rights, 2167 and Biidaaban: First Light" UNPUBLISHED

MacDonald, Jennifer, and Jennifer Markides. "Called to action: Dialogue around praxis for reconciliation." *McGill Journal of Education (Online)*, vol. 53, no. 2, 2018, pp. 213-232.

Marker, Michael. "Teaching History from an Indigenous Perspective: Four Winding Paths up the Mountain". *New possibilities for the past: Shaping History education in Canada*, 2011 pp.97-112

McRoberts, Jamie. "Are we there yet? Media content and sense of presence in non-fiction virtual reality." *Studies in Documentary Film*, vol. 12 no.2, pp. 101-118

Miles, James. "Teaching history for truth and reconciliation: The challenges and opportunities of narrativity, temporality, and identity". *Revue des sciences de l'éducation de McGill*, Vol. 53, No. 2, Spring 2018, pp. 294-311

Milk, Chris. "How Virtual Reality Can Create the Ultimate Empathy Machine." Youtube, uploaded by TED, April 22 2015, <https://www.youtube.com/watch?v=iXHil1TPxvA>

Morin, Courtney. "Screen Sovereignty: Indigenous Matriarch 4 Articulating the Future of Indigenous VR." *BC Studies*, vol. 201, Spring 2019, pp.141-146.

Nakamura, Lisa. "Laboring Infrastructures". *Digital Democracies conference*, May 15 2019. Simon Fraser University. Presentation.

Nakamura, Lisa. "Feeling Good about Feeling Bad: Virtuous Virtual Reality and the Automation of Racial Empathy." *Journal of Visual Culture*, vol. 19, no. 1, Apr. 2020, pp. 47–64.

Nash, Kate. "Virtual reality witness: exploring the ethics of mediated presence." *Studies in Documentary Film*, vol 12, no 2, 2018. pp. 119-131

Razack, Sherene H. *When Place becomes Race: Race, Space, and the Law: Unmapping a White Settler Society*. Between the Lines, 2002.

Red Chef Revival, Episode 4 - Maskwacis

Regan, Paulette. *Unsettling the Settler Within: Indian Residential Schools, Truth Telling, and Reconciliation in Canada*. UBC Press. 2010

Ritenburg, Heather, et al. "Embodying Decolonization: Methodologies and Indigenization." *AlterNative: An International Journal of Indigenous Peoples*, vol. 10, no. 1, 2014. pp. 67–80.

Robillard, Jean-Philippe. "Des milliers d'ordinateurs pour les élèves du Québec | Coronavirus." *Radio-Canada.ca*, 14 Jan. 2021. <https://ici.radio-canada.ca/nouvelle/1763059/ministere-education-milliers-ordinateurs-eleves-quebec>. Accessed 15 Jan.. 2021.

Rose, Mandy. "The immersive turn: hype and hope in the emergence of virtual reality as a nonfiction platform". *Studies in Documentary Film*, vol. 12, no. 2. 2018. pp.132-149

Saint-Pierre, Joannie. "Processus d'engagement des Premières Nations, Métis et Inuits dans la révision du curriculum ontarien" *McGill Journal of Education*, vol. 53, no. 2, Mar. 2019

Seawright, Gardner. "Settler Traditions of Place: Making Explicit the Epistemological Legacy of White Supremacy and Settler Colonialism for Place-Based Education." *Educational Studies*, vol. 50, no. 6, Nov. 2014, pp. 554–72.

Seixas, Peter. "Assessment of Historical Thinking". In P. Clark (Ed.) *New Possibilities for the Past Shaping History Education in Canada*. UBC Press, 2014. pp. 139–153

Shogaolu, Tamara, Paisley Smith & Sutu, panelists. Panel discussion. *Film Independent - Dreams of the future: Social Justice, Equality and VR*. LMU's Playa Vista Campus. September 20-22. <https://www.filmindependent.org/blog/balancing-social-justice-and-immersive-entertainment/>

Shotwell, Alexis. *Against Purity: Living Ethically in Compromised Times*. University of Minnesota Press, 2016.

Simpson, Leanne Betasamosake. "Land as pedagogy: Nishnaabeg intelligence and rebellious transformation". *Decolonization: Indigeneity, Education & Society*, vol. 3, no. 3, 2014, pp.1-25

Smith, Linda Tuhiwai. "Chapter 2: Research Through Imperial Eyes". *Decolonizing Methodologies*. 1999. pp.42-57

Souppouris, A. "VR Helped Me Grasp the Life of a Transgender Wheelchair User." *Engadget*, <https://www.engadget.com/2016-10-17-the-circle-vr-manos-agianniotakis-nfts-games.html>. Accessed 28 July. 2019.

Steinman, Erich. "Unsettling as Agency: Unsettling Settler Colonialism Where You Are." *Settler Colonial Studies*, vol. 10, no. 4, Oct. 2020, pp. 558–75.

TallBear, Kim. "Standing With and Speaking as Faith: A Feminist-Indigenous Approach to Inquiry [Research Note]". *Journal of Research Practice*. vol. 10, no. 2 (2014) Article N17

"Toponym'Elles : Montréal au féminin". Ville de Montréal. http://ville.montreal.qc.ca/portal/page?_pageid=1560%2C1723376&_dad=portal&_schema=PORTAL. Accessed 24 Aug. 2020.

Truth and Reconciliation Commission of Canada (TRC). *Honouring the truth, reconciling for the future: Summary of the final report on the Truth and Reconciliation Commission of Canada*, 2015. Retrieved from publications.gc.ca/collections/collection_2015/trc/IR4-7-2015-eng.pdf

Tuck, Eve & K. Wayne Yang. "Decolonization is not a metaphor". *Decolonization: Indigeneity, Education & Society*, vol.1, no. 1 (2012) pp. 1-40

Unsettling Event Series. Concordia University, 30 Avr. 2018. Concordia University, Montreal. Workshop.

Veracini, Lorenzo. *The Settler Colonial Present*. Palgrave Macmillan, 2015.

Vowel, Chelsea. *Indigenous Writes: A Guide to First Nations, Métis & Inuit Issues in Canada*. HighWater Press, 2016.

Wallis, Keziah & Miriam Ross. "Fourth VR: Indigenous virtual reality practice". *Convergence: The International Journal of Research into New Media Technologies*. 2020 pp.1-17

Walz, Liz. "The Culture of White Privilege Is to Remain Silent" *We Have Not Been Moved: Resisting Racism and Militarism in 21st Century America*. 2012, pp. 104-109

Webber, Geoff, and Dianne Miller. "Progressive Pedagogies and Teacher Education: A Review of the Literature." *McGill Journal of Education*, vol. 51, no. 3, May 2017, pp. 1061-79

Wise, Tim. "The Unacceptability of Truth: Of National Lies and Racial America" *We Have Not Been Moved: Resisting Racism and Militarism in 21st Century America*. 2012, pp. 165-166

Yang, Robert. "If You Walk in Someone Else's Shoes, Then You've Taken Their Shoes': Empathy Machines as Appropriation Machines." *Radiator Design Blog*, 5 April 2017, <https://www.blog.radiator.debacle.us/2017/04/if-you-walk-in-someone-elses-shoes-then.html>.

Yee, N., & Bailenson, J.N. "Walk a mile in digital shoes: The impact of embodied perspective-taking on the reduction of negative stereotyping in immersive virtual environments." *Proceedings of PRESENCE 2006: The 9th Annual International Workshop on Presence*. August 24 – 26, 2006 Cleveland, Ohio, USA

Graphics:

Paper stack icon by Sam Garner from the Noun Project

Virtual reality headset icon by Andrejs Kirma from the Noun Project

Swivel chair icon by Design Circle from the Noun Project

360° camera icon by Tinashe Mugayi from the Noun Project

Friends icon by The Icon Z from the Noun Project

Appendices

Appendix 1: Media Review and Field Notes

This table is also available at:

<https://docs.google.com/spreadsheets/d/1XyYE2LPkSoY0shOWOZ4S0Wi1kOPKh9d6KTPdz2nVocw/edit?usp=sharing>

Title	Creator	Location	Technology	Physical position	\$\$\$?	Social Context	Official synopsis	Fieldnotes	Link to more info
7 lives	Charles Ayats , Sabrina Calvo , Jan Kounen	Festival du Nouveau Cinéma (Hexagram/ UQAM)	Oculus GO headset (or equivalent)	Sitting on bench	Free	With friend (first VR experience)	Lives is the fantasy tale of an impending death experience on the platform of a Japanese train that opens up a strange new world. Created by Charles Ayats, Sabrina Calvo and Jan Kounen, 7 lives explores the realm of universal emotions, beyond what any words can describe. https://2019.nouveaucinema.ca/en/films/7-lives	I found the experience hard to navigate. I was unsure how to access the different stories and the physical movements required to move from one to another was difficult for me to execute. I am also not fond of horror-like movies and was vaguely scared throughout my viewing.	(FR version) https://www.youtube.com/watch?v=pHi_6ZGTxBE
Across the Line	De la Pena, Nonny	My living room	Google Cardboard Headset	Sitting on swivel chair	Free	Alone	Across the Line is an immersive virtual reality experience that combines 360° video and computer generated imaging (CGI) to put viewers in the shoes of a patient entering a health center for a safe and legal abortion. https://www.acrossthelinevr.com/about/	I found Across the Line to be awkwardly acted and/or set up. I'm not sure if this was on purpose, but the actress's tattoo clearly states that she's a suicide survivor which wasn't addressed in the video while also complicating the abortion story. The mix of scenes acted out by avatars vs. live humans felt somewhat disjointed.	https://www.acrossthelinevr.com/
Another Dream	Shogaolu, Tamara	Festival du Nouveau Cinéma (Hexagram/ UQAM)	Oculus GO headset (or equivalent)	Standing	Free	With friend (first VR experience)	Another Dream, a hybrid animated documentary and VR game, brings the gripping, true love story of an Egyptian lesbian couple to life. Faced with a post-revolution backlash against the LGBTQ community, they escape Cairo to seek asylum and acceptance in the Netherlands. An accompanying installation allows audiences to reflect on what they have seen, heard, and felt in VR. https://docubase.mit.edu/project/another-dream/	Using Oral Histories as its base, this piece used a variety of visual styles to convey its protagonist's accounts. The piece provided different ways for me to move or be moved through space. It uses written arabic and English which I thought efficiently transmitted the themes of home and displacement. The complexities of the visuals kept me engaged throughout. ** There was no 'accompanying installation' when I watched the piece.	https://www.adoa.topictures.com/another-dream
Beethoven's Fifth	Brillhart, Jessica	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Sitting on stool	\$\$\$	With friend also studying VR	Journey into interstellar space with a performance of Beethoven's Fifth Symphony, First Movement by the Philharmonia Orchestra, London, featuring principal conductor Esa-Pekka Salonen. This experience is inspired by content on the Voyager Golden Records, recordings placed aboard the Voyager spacecraft in 1977 containing sounds and images portraying the diversity of life and culture on Earth. They were intended for any intelligent extraterrestrial life form, or for future humans. https://www.vrai.pictures/b5vr-2	As a viewer, you change positions amongst musicians in an orchestra while they are playing Beethoven's Fifth symphony. You then sometimes suddenly find yourself in a type of strange, blue space with white filaments (?). It made no sense to me and I couldn't understand why we were suddenly changing the environment. I was also sitting on a stool which made it harder for me to turn around and experience the piece properly. When I did some research, I learned that the director wanted to parallel the piece with Beethoven's deafness. I really disliked the piece, and also think knowing the background might have at least helped me contextualize it more.	https://www.youtube.com/watch?v=gFXW00BUuW8

Bergmal	Filion, Éric	Festival du Nouveau Cinéma (Hexagram/UQAM)	Oculus GO headset (or equivalent)	Sitting	Free	With friend (first VR experience)	<p>The Bergmál VR/infrasound project is a collaborative research-creation project that will be undertaken by Eric Filion (visuals) and Michael Trommer (audio) in the spring of 2018. It is intended as a meditation on a specific peoples' bond to the land – the locus that roots their connection to broader notions of life, death and spirituality. It seeks to capitalize on the cognitive disruption inherent in virtual environments as well as the embodied affective capacities of low-frequency tactile sound to evoke the natural environment as a sublime, awe-inspiring force imbued with quasi-mystical powers.</p> <p>http://nokami.com/Bergmal.html</p>	<p>This piece's use of 360 did not seem purposeful, and so did its direction. Why were there changes in perspective? Why did some shot overlap? Is there any message or point to this? It also serves as a reminder of the importance of where 360 video is viewed. This piece was shown on a chair that didn't naturally turn, impeding the viewer in their experience. However I was quite impressed by the stability of the camera when it was filming from the hood of a car.</p>	<p>https://www.youtube.com/watch?v=4bAkjMLMDtQ</p>
Berlin Paris Terror	Brügger, Jürgen, and Jörg Haaßengier, Astrid Schult and Ricarda Saleh	Centre Phi (Alternate Reality)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With sister (first VR experience)	<p>On December 19, 2016, 12 people perished in the attack on the Christmas market in Berlin, and 70 others were injured. On January 7, 2015, two terrorists attacked the magazine Charlie Hebdo. Shortly afterwards, a third terrorist attacked the kosher supermarket Hyper Cacher, killing four Jews and taking numerous hostages. Experience the memories of the first responders and surviving hostages of these major terrorist incidents in Germany and Paris.</p> <p>https://sheffdocfest.com/films/6588</p>	<p>The piece mixed drawings, abstract imagery and live scenes. The elements were mostly static but appeared one after the other. The use of split screen with half of the image being a narrator and the other an animated drawing was efficient in capturing or showcasing people's 'inner worlds/fragmented memories' as well as to express traumatic images without overwhelming me. When featuring a person, the angle was somewhat strange with the narrator's feet somewhat distorted. The sound could be quite loud, but made sense for the topic and contributed to my emotional response. There were different narrators and dubbing. I really liked it, but it still felt a little long and I wondered if more physical interactivity might have been beneficial in impressing viewers with the trauma of the event.</p>	<p>https://www.youtube.com/watch?v=BZl09-SQG5E</p>
Biidaaban	Lisa Jackson	Milieux Institute	Oculus GO headset (or equivalent)	Sitting on swivel chair	Free	Alone	<p>The town square is flooded. The city's infrastructure has merged with local flora. In this radically different future, people have found a connection to the past. Biidaaban: First Light illuminates how the original languages of this land can provide a framework for understanding our place in a reconciled version of Canada's largest urban environment.</p> <p>http://lisajackson.ca/filter/VR/Biidaaban-First-Light-VR</p>	<p>A strong example of Indigenous futurism featuring a superposition of past and future. Great sound effects. I felt a weird dissonance between a strong sense of presence but lack of embodiment, but I wonder if that in itself might have been intended as part of the message. After having read so much about it, I think my expectations were too high and the piece felt somewhat underwhelming.</p>	<p>http://lisajackson.ca/Biidaaban-First-Light-VR</p>

C.S.S.C. Coach Stage Stage coach VR experiment Mary and Eve	Paul McCarthy	Centre Phi (Cadavre Exquis)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend (first VR experience)	Exposing the obscurity at the heart of mainstream culture, McCarthy probes systems of gender, politics and popular culture that more or less unnoticeably rule our world. https://khoraccontemporary.com/project/paul-mccarthy/	I INTENSELY disliked this piece. It felt porn-y for no reason. The immersive affordances was technically leveraged in the sense that the whole space was used, but I couldn't understand how it impacted the 'story'. The sound and the images made me dizzy and uncomfortable.	https://ocula.com/art-galleries/hauser-wirth/artworks/paul-mccarthy/cssc-coach-stage-stage-coach-vr-experiment-ma/
Chalkroom	Laurie Anderson & Hsi Chien Huang	Centre Phi (Cadavre Exquis)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend (first VR experience)	It is an immense structure made up of words, drawings and stories. The letters fly through the air, fall to dust and re-form all around, allowing us to wander virtually from room to room. https://phi-centre.com/en/event/cadavreexquis-en/	This experience was very sensorial and interactive. The space in which I moved felt enormous. I was never quite sure whether the piece was 'finished' (whether I'd explored all of the space) and didn't really know how to talk about it afterwards.	https://laurieanderson.com/?portfolio=chalkroom
Chapter I — Spheres: Chorus of the Cosmos	McNitt, Eliza	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	Planet Earth sings. In this interactive virtual reality experience, we discover the universe through sound. Our solar system becomes an instrument and we listen to its music. https://phi-centre.com/en/event/echo-2018-en/	These pieces were interactive in the best of ways, and made a lasting impression. They fit in perfectly with the idea of allowing you to experience a place you will never have access to. The immersive and interactive affordances were leveraged in many different ways. Along with the changing visuals, it made the pieces engaging throughout. The narrators were professional actors and they begin by 'teaching' you how to operate within the environment without interrupting the story. It was super efficient.	http://www.elizamcnitt.com/spheres
Chapter II — Spheres: Songs of Spacetime	McNitt, Eliza	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	Dive into the heart of a black hole to uncover the breakthrough discovery of gravitational waves. Fall into the darkness and you will find the light. https://phi-centre.com/en/event/echo-2018-en/	** See Chapter 1	http://www.elizamcnitt.com/spheres
Chapter III — Spheres: Pale Blue Dot	McNitt, Eliza	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	The Big Bang was silent. Then came sound. Journey from the edge of the cosmos to uncover the strangest song of all. https://phi-centre.com/en/event/echo-2018-en/	** See Chapter 1	http://www.elizamcnitt.com/spheres

Crow: The Legend	Darnell, Eric	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	In a time before mankind walked the face of the Earth, there exists only spring. Of all the animals, Crow is the most admired for his dazzling plumage and mellifluous voice. Then, for reasons unknown, the Spirit of the Seasons brings winter to the forest for the first time. As the temperature plunges, the once carefree animals realize their very lives are in danger. Crow soars into the heavens to make the journey to persuade "The One Who Creates Everything by Thinking" to help them, but what must Crow sacrifice to save his friends? https://www.baobabstudios.com/crow-the-legend	The piece was interactive and very engaging. You are given the role of "Spirit of the Seasons". All of your movements mildly affect your environment (grass moves, wind blows, etc.) which, despite my lack of corporeal presence, made me feel ultra connected to the piece and the other protagonists. The visuals were spectacular. However, I tried rewatching the piece with a google cardboard headset in my living room and it wasn't quite as engaging.	https://www.baobabstudios.com/crow-the-legend
Dr. Who: The Runaway	BBC Studio	Festival du Nouveau Cinéma (Hexagram/UQAM)	Oculus GO headset (or equivalent)	Standing	Free	With friend (first VR experience)	You've been in a collision. You wake up inside the TARDIS. The Doctor introduces you to the person, or thing, you collided with: a strange and magnificent ball of living energy called Volta. Part surly teenager, part bomb, Volta is very unstable. In fact, he's primed to explode. https://www.doctorwho.tv/news/?article=first-look-at-vr-doctor-who-adventure-the-runaway	The experience asks you to take action to move the story forward, but you can only do so following specific instructions (press that button, take that tool), which takes the fun out of exploring out of it. Animated characters. It might have been intended for children?	https://www.youtube.com/watch?v=-RPe6aNiotA
Forest	Boncato, Kelsey & Daniel Oldham	Festival du Nouveau Cinéma (Hexagram/UQAM)	Oculus GO headset (or equivalent)	Standing	Free	With friend (first VR experience)	Following a trail of strange plants to the center of a mushroom ring, the viewer is transported into the forest. A timed, music scored, meditative experience begins as the user glides through the virtual space. https://2019.nouveaucinema.ca/en/films/forest	The use of music to punctuate visuals, as well as the firefly-like graphics dispersed through the piece made it playful and relaxing. Since I've been watching VR for a few years, I know I've learned to play with the medium as much as I can by trying to move and explore to see just how far the creators have allowed for interactivity. I wonder whether people new to the mediums would have done the same. How do you teach people to see VR?	https://bkeisstudio.cargo.site/FOREST
Grenfell: Our Home	Rudd, Jonathan	Centre Phi (Alternate Reality)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With sister (first VR experience)	Unearth the story of residents' lives before the fire of June 14, 2017. Powerful testimony, filmed in stereoscopic 360 video, gradually builds around the interviewees and the viewer as survivors describe the homes, possessions, and people they lost on the night of the fire. The stylized animation offers a moving and original perspective on the events, in a sensitive and respectful record of residents' experiences. https://phi-centre.com/en/event/alternate-realities-2018-en/	The use of colour and drawing over what looked like a 'real' depiction of the apartments that burned was lovely and made me feel like I was literally coming into the story. It was a bit magical. There was a mix of real people being interviewed while VR surrounded them to represent their apartment. There was also some text. The story itself being about a space AND emotions made it such a good topic for a space based medium like VR. The way the apartments came to life as the people talked about it made it feel like you knew them and made me excited to learn more about them, and to see what other people's space looked like (notion of the privileged space). At twenty minutes, however, it felt a bit long.	https://www.youtube.com/watch?v=82ZsVqlmx84

How to tell a True Immigrant Story	Bazaz, Aggie Ebrahimi	My living room	Computer	n/a	Free	Alone	Saratoga Springs, New York is a white and affluent town of 28,000 whose tourist economies are maintained by the labor of people who migrate to the US annually. "How to Tell a True Immigrant Story" is a poetic and participatory metanarrative that weaves together experiences of members of the Latinx immigrant community in Saratoga Springs as they respond to increased ICE activity and anti-immigrant sentiment after the 2016 presidential election. The film aims to expand understanding of experiences otherwise reduced to politically expedient constructs while marshaling the surveillance logic of 360 video to interrogate ways that documentary itself has potential to operate, like a border protection interview, to "make accessible" (Trinh T. Minh-ha) those who are otherwise marked other. https://aggiebazaz.com/true-immigrant/	The technique was inspiring: it used gaps and image splits (where both half of the sphere of visions present different environment) as well as non diegetic soundscapes to illustrate the split experience (stability of one image vs. changing of the other) and identity migrants can experience. My experience of the linguistic use of the piece, where English subtitles are inconsistent, and the dialogue and narration's change from English to Spanish, changed my power positioning throughout the piece. The visual presentation of the subtitles (font and placement, sometimes incorporated into the decor, and sometimes incongruous on the image) also served (for me) the place of a guide and an indication of who I was 'playing' in the piece.	https://aggiebazaz.com/true-immigrant/
I Saw the Future	Vautier, François	Centre Phi (Man and Machine)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	Alone	In a dark expanse that could be the cosmos, we hear the voice of Arthur C. Clarke, whose face – taken from a BBC archive dating back to the 1960s – appears in the distance. This film is an invitation to travel, and a repuscular form of poetry to be experienced immersively. https://www.imdb.com/title/tt7475536/	The whole piece was narrated by the voice of someone we are told is an eminent scientist who 'predicted' the future. What he talks about is illustrated in a grid-like esthetic (3D skeleton images). It feels like the piece wasn't using space itself, or the ability to give the viewer a specific perspective as a prompt. I didn't really see the relevance of the immersive factor. I also had no interest in the topic.	https://www.youtube.com/watch?v=LHVbU3wlrZM
I, Phillip	Zandrowicz, Pierre	Centre Phi (Man and Machine)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	Alone	In 2015 a young engineer unveils Phil, an android re-creation of American author Philip K. Dick, who died 23 years earlier. Viewers watch from inside the robot's head, turning to look at whatever they like to recreate what seems to be the author's latest love story. https://phi-centre.com/en/event/vr-cinema-nov2018-en/	This piece left me a bit confused and unsure. What was the point of me being put into the position of a head? I was completely emotionally disconnected from the head? Retroactively, when looking at the synopsis, I barely recall the love story aspects. Just that strange point of view of being a head.	https://futureofstorytelling.org/project/i-philip
Lunatick	Antony Gormley & Pryamvada Natarajan	Centre Phi (Cadavre Exquis)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With friend (first VR experience)	Lunatick uses data collected by NASA to map a real and interactive journey, leaving Earth to travel through atmosphere, stratosphere, the asteroid belt, and into outer space. https://acutearth.com/lunatick-at-moody-center-for-the-arts-houston/	This piece was very similar to Spheres. I enjoyed the use of the immersive factor to allow me to experience a place I will never have access to. 'Surfing' on the asteroids was particularly fun.	https://campuspress.yale.edu/priya/scienceart/scienceart/lunatick-vr/
Manic VR	Bertin, Kalina and Sandra Rodriguez, Fred Casia and Dpt.	Centre Phi (Alternate Reality)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With sister (first VR experience)	Explore the exuberant and chaotic worlds of an imagination haunted by bipolar disorder. Guided by the compelling voices of Felicia and François who, for the past three years, have used their sister's voice mail as their personal diary. The user will embark on a journey to decipher the whirlwind of mania, psychosis and depression. https://www.eyesteelfilm.com/web-projects/manic-vr/	The piece attempted to take you inside a bipolar person's mind using voicemails to narrate out the reactions of the people witnessing her mania/depression. The space you could move in was narrow and the elevator motion and the movements of elements around me made me nauseous.	https://vimeo.com/273215708

Mind at War	Sutu	Centre Phi (Alternate Reality)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With sister (first VR experience)	Scott never wanted to join the military. Two weeks before his wedding, he lost his job. Unemployed and desperate for work, he signed up for the military after 9/11. Ill-equipped and emotionally unstable, the war exposed him to layers of trauma and he quickly became a victim of post-traumatic stress disorder. Delve into an interactive exploration of PTSD and the banal horrors of war within the landscape of Scott's memories. https://www.sutueatsflies.com/art/mind-at-war	The images were mostly still with only small sections of each of them animated. The visuals were a type of crude 3D characters which I'm personally not fond of but worked with the tone of the piece. The piece is 22 minutes long and I stopped paying attention after about 15 minutes, mostly due to length.	https://www.youtube.com/watch?v=ht09ABVCKto
Notes on Blindness: Into Darkness	Colinart, Arnaud and Amaury La Burthe, Peter Middleton and James Spinney,	Centre Phi (Man and Machine)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	Alone	After a years-long struggle with dark splotches increasingly interfering with his vision, John Hull became blind in 1983. To ward off despair, the writer and professor kept an audio diary of the evolution of his disability, totalling more than 16 hours. http://www.notesonblindness.co.uk/	The concept is interesting but I think I didn't have enough context to feel connected to the protagonist's storyline. A longer or more progressive story might have helped? (My friend loved it, but he is more conceptual than I am.)	http://www.notesonblindness.co.uk/vr/ https://www.youtube.com/watch?v=tb5DwAZlQZw
Pearl	Osborne, Patrick	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Sitting on swivel chair	Free	With sister (first VR experience)	Set inside their home, a beloved hatchback, Pearl follows a girl and her dad as they crisscross the country chasing their dreams. It's a story about the gifts we hand down and their power to carry love. It's also a tale about finding grace in the unlikeliest of places. https://store.steampowered.com/app/476540/Google_Spotlight_Stories_Pearl/?l=french&curator_clanid=32244664&curator_listid=29492	The entire movie is seen from within a car where you are sitting in the passenger seat. I could see out of the car's window if I got up from the chair but the employees scolded me not to which was frustrating. I felt like an invisible witness and the physical proximity with the characters was really emotionally impactful.	https://www.youtube.com/watch?v=WqCH4DNQBUA
Playtime	Catherine Bazinet, Maxime Boisvert, Ronan Le Gall, Alexis Maher, Charles Tétrault	Festival du Nouveau Cinéma (Hexagram/ UQAM)	Oculus GO headset (or equivalent)	Standing	Free	With friend (first VR experience)	Playtime transports us into the universe of a child's imagination. When a child travels to another world, walls no longer exist, objects come alive and a myriad of colours are displayed in the eyes of those who dare to imagine https://2019.nouveaucinema.ca/en/films/playtime	The piece was interactive but I found it hard to connect with it. The 'child's mind' theme made everything feel purposeless and the piece wasn't technologically sophisticated enough to otherwise hold my attention.	https://2019.nouveaucinema.ca/en/films/playtime
Rainbow	Olafur Eliasson	Centre Phi (Cadavre Exquis)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend (first VR experience)	Viewers enter an immersive environment, encountering a fine curtain of softly falling water through which light passes. Just as a rainbow only appears when light, water droplets, and the eye are in alignment, so Eliasson's virtual rainbow can only be seen when the viewer's movement produces a correlation between these three points. Its coloured light slips in and out of view, responding to the viewer's body as well as handheld controls, which allow direct interaction with droplets as they descend. https://acutearth.com/artist/olafur-eliasson/	A short and simple interactive piece. The point seemed to be mostly about esthetics but I felt connected to the environment I was in. People were waiting in line to do it, so I would love to experience again without feeling rushed.	https://acutearth.com/artist/olafur-eliasson/

Rising	Marina Abramović	Centre Phi (Cadavre Exquis)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend (first VR experience)	In this disturbing and poetic call to action, the artist raises awareness of climate change by leading us to observe and "live" the irreversible effects of rising sea levels. https://phi-centre.com/en/event/cadavreexquis-en/	The visuals were hard to connect to, but I think this is mostly due to my own preference in storytelling. The protagonist/director being stuck in a water tank filling up as an allegory for climate change was a bit too much for me. However, the piece really did feel efficient when I was placed on a dock surrounded by angry waves while slowly being submerged (which I gathered was prescient of rising waters due to climate change). I'm not sure how efficient the 'call to action' is though.	https://acutearth.com/artist/marina-abramovic/
Tales of Wedding Rings VR	Sou, Kaei	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With friend also studying VR	Sato lives next to his classmate, Hime. One day, Hime tells Sato that she is moving away. He later finds out that Hime is a princess from another world. This debut title is based on the original work of the same name, Tales of Wedding Rings, currently serialized in Monthly Big Gangan magazine. This experience fully reproduces the epic world of the original manga in VR, allowing the user to "step inside the story." https://phi-centre.com/en/event/echo-2018-en/	Although there was way too much cleavage and butt shots, I really enjoyed this. The story was typical anime shoujo, but the visual and technical affordances were amazing: the experience used typical manga frames, but allowed you to peer into them. The use of bubbles to subtitles was smart and it was a fun extrapolation of the manga style. I felt like I got to experience a totally different universe, or step into a book. I feel like this kind of technique could be really useful when trying to call viewers to action.	https://store.steampowered.com/app/692360/Tales_of_Wedding_Rings_VR/
The Coast	Turbulent for Valaire	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	The Coast is a virtual reality music video for the eponymous track by Montreal-based electropop band Valaire. In just under four minutes, The Coast takes viewers through the upbeat landscape of an exotic island rich in colour and lush with life. Set to the rhythm of Valaire's soundtrack, it offers a novel approach to virtual reality. It was designed to bring smiles to faces and have viewers overcome their inhibitions and dance along, in a short, bite-sized experience that leaves a vibrant, happy memory. https://thecoastvr.com/fr	A really easy, fun music video that allowed you to play with the elements around you as you moved on a type of tapis roulant. Fun, short, it made me smile and feel strangely empowered. Like going for a bike ride in the summer.	https://thecoastvr.com/fr
The Halluci Nation - Indian City Ft. Black Bear by A Tribe Called Red	Jon Riera / Dan LeMoyné	My living room	Google Cardboard Headset	Sitting on swivel chair	Free	Alone	Music Video: Our song Indian City took a turn into the virtual reality world #360VR . https://www.youtube.com/watch?v=BeGk8qn61lk	Although it is in a way just a fun music video, this might be an instance of modern technology being used by Indigenous creators as a disruption of manifest destiny. The visuals included dancers and a video game reference I didn't get (I think?).	https://www.youtube.com/watch?v=BeGk8qn61lk

The Real Thing	Felici, Benoit, codirected by Mathias Chelebourg	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With friend also studying VR	Around China's largest cities, entire neighbourhoods have been inspired by foreign models. The film explores the most stunning of these "fake cities." It travels from Paris to London and Venice without ever leaving China. The inhabitants guide us in the parallel world where they have chosen to live. As virtual reality leads the way to virtual tourism, copycat cities compete to offer a real experience of static travel. Walking the thin line between reality and virtuality, this documentary combines both to impart a whole new feeling of ubiquity. https://ifcinema.institutfrancais.com/en/movie?id=ab288774-00b0-4e8a-aa2f-89520bf916b8	This piece was interesting and beautiful but felt very long. The subtitles were on both sides of the screen which was useful, but also showed how distracting having to read is in an immersive experience. I am by principle against dubbing but, I think immersive media might be an exception (though I'd still advice to overlay and not just dub)	http://therealthinng.film/ https://www.within/watch/the-real-thing
To The Moon	Laurie Anderson & Hsin Chien Huang	Centre Phi (Cadavre Exquis)	Oculus GO headset (or equivalent)	Sitting on swivel chair	\$\$\$	With friend (first VR experience)	This experience presents an imaginary vision of the moon combining images and symbols borrowed from greek mythology, literature, science, sci-fi space movies and politics. https://phi-centre.com/en/event/cadavreexquis-en/	This piece was very similar to Chalkrrom (going around and discovering new places), but you didn't have quite as much agency as to where you were going. Since the piece had a 'set' time (it brings you with it towards somewhere vs. just letting you explore), it felt a bit long since I didn't have control as to when I was done exploring.	https://arts.vive.com/uk/articles/projects/art-photography/to-the-moon/
Traveling While Black	Felix and Paul	Concordia's Technology Sandbox	HTC Vive VR Headset	Sitting on (broken) swivel chair	Free	Alone	The Green Book was a critical guide for African-Americans struggling to travel safely in the Jim Crow era. This 360 degree video explores its complicated legacy. This film offers a revealing view of the Green Book era as told through Ben's Chili Bowl, a black-owned restaurant in Washington, and reminds us that the humiliations heaped upon African-Americans during that time period. https://sifsathome.org/main/traveling-while-black	Throughout the piece, I felt like I was being given privileged access to people's casual and intimate conversations. The films makes you a witness to Black folks sharing amongst themselves their experiences of Jim Crow, of travelling, and of surviving violence. The last conversation you are witness to is that of Tamir Rice's mom who speaks of the night he died with the whole café listening as well. All of the footage makes it feels like you could really be part of that conversation (shadow where you're sitting, poster where you should be able to see yourself in the mirror). The only time this isn't the case is when the film makes use of the gap and the mirrors at your side are transformed into a bus's side window with what you could imagine is the reflection of the man speaking at the same time, looking at you. This was a great piece — I didn't see it in a very conducive environment and it still made a huge impact. I'm looking forward to seeing it again.	https://www.youtube.com/watch?v=7UUFn7iymyo
Unceded Territories	Smith, Paisely & Lawrence Paul Yuxweluptun	Festival du Nouveau Cinéma (Hexagram/ UQAM)	Oculus GO headset (or equivalent)	Standing	Free	With friend (first VR experience)	Unceded Territories is a provocative interactive XR experience that deals with climate change and indigenous civil rights by bringing audiences into a world formed of Lawrence Paul Yuxweluptun's iconic art. https://2019.nouveaucinema.ca/en/films/unceded-territories	This is my favourite piece so far. The immersive factor of both sound and image create an overwhelming impression of helplessness and lack of control, putting the viewer into both a colonizer and a colonized position (I think). My ultimate impression was that of being forced into understanding the complexity of being a settler - how destruction can happen even with the best of intentions.	https://www.paisleysmith.com/unceded-territories-vr

Vestige	Bradbury, Aaron	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	Vestige is a creative documentary that uses volumetric live capture to take the viewer on a journey into the mind of Lisa as she remembers her lost love, Erik. Within an empty void, fragments of past memories of their life together appear. As you navigate the space to explore these moments, new memories are triggered, revealing new pathways through the story. Over time, the memories become entangled with a haunting vision and eventually lead you to the shocking moment of Erik's death. Every viewing will reveal a different journey towards this moment, bringing to light the complex world of memory and grief. http://hsccreative.com/projects/vestige-vr/	I had trouble connecting to the type of images used to represent the characters (volumetric live capture). Light was also filtering through the headset. I wasn't sure where the boundaries of the watching space was so I was constantly scared of bumping into something due to the physical set up.	http://vestige-vr.com/
Visual Mistakes	Adam, Benoît	Festival du Nouveau Cinéma (Hexagram/ UQAM)	Oculus GO headset (or equivalent)	Sitting on plastic chair	Free	With friend (first VR experience)	Reality escapes us, and our perception sometimes has... errors. Visual Mistakes_ an interactive virtual reality experience that is for two people: one is immersed in a strange technological laboratory while the other can change the experience of the first. https://2019.nouveaucinema.ca/en/films/visual-mistakes-	The interactivity in this piece was confusing - what am I looking at and why? Who is this person and am I supposed to follow them? It felt pointless, annoying, and like a vanity project.	https://2019.nouveaucinema.ca/en/films/visual-mistakes-
Wolves in the Walls	Billington, Pete	Centre Phi (Echo: The sound of space)	Oculus GO headset (or equivalent)	Standing	\$\$\$	With friend also studying VR	Not everything is as it seems when eight-year-old Lucy's imagination proves to be reality. Based on a work by Neil Gaiman and Dave McKean, Wolves in the Walls transports you into the magic of virtual reality cinema where only you can help Lucy discover what's truly hiding inside the walls of her house. Conceptualized by the Emmy Award-winning team that brought you Henry, and choreographed by New York's critically acclaimed theater company, Third Rail Projects, this immersive fable wonders what it would be like to interact, have a relationship, and go on a quest with a character inside a virtual reality movie. https://fable-studio.com/wolves-in-the-walls	I'm not a fan of animated character so although this piece was well constructed, I didn't particularly enjoy it, nor did it make a big impact on me. I did notice that having 'hands' (in chalk) made me feel more a part of the story.	https://www.youtube.com/watch?v=zK01ZqXXmXQ

Table 2

Appendix 2: Directed Study Reading Curriculum

Week	Readings
<p>Week 2 Indigenous pedagogies</p>	<p>Simpson, Leanne Betasamosake. "Land as pedagogy: Nishnaabeg intelligence and rebellious transformation". <i>Decolonization: Indigeneity, Education & Society</i>, vol. 3, no. 3, 2014, pp.1-25</p> <p>Lewis, Jason Edward. "A Better Dance and Better Prayers: Systems, Structures, and the Future Imaginary in Aboriginal New Media". <i>Coded Territories : Tracing Indigenous Pathways in New Media Art</i>, 2014. p. 55-78</p> <p>Smith, Linda Tuhiwai. "Chapter 2: Research Through Imperial Eyes". <i>Decolonizing Methodologies</i>. 1999. pp.42-57</p>
<p>Week 3 Indigenous pedagogies</p>	<p>Smith, Linda Tuhiwai. "Chapter 8: Twenty-five Indigenous Projects & Responding to the Imperatives of an Indigenous Agenda: A Case Study of Maori". <i>Decolonizing Methodologies</i>. 1999. pp.142-178</p> <p>Denzin, Norman K., et al. "Chapter 23: Rethinking Collaboration: Working the Indigene-Colonizer Hyphen" <i>Handbook of Critical and Indigenous Methodologies</i>. 2008. pp.471-486</p> <p>Ritenburg, Heather, et al. "Embodying Decolonization: Methodologies and Indigenization." <i>AlterNative: An International Journal of Indigenous Peoples</i>, vol. 10, no. 1, 2014, pp. 67–80</p> <p>"INQ13 Linda Tuhiwai Smith and Eve Tuck - "Decolonizing Methodologies" https://www.youtube.com/watch?v=r1ZXQC27tvg&list=PLEewxwVCMQcm1zc2l8NzJY_9sPIH5KeGT"</p>
<p>Week 4 Virtual Reality and education</p>	<p>Freire, Paulo, "Chapter 2". <i>Pedagogy of the oppressed</i>. New York: Herder and Herder, 1972. pp.71-86</p> <p>Frontera, E. Teaching Students to Build Historical Buildings in Virtual Reality: A Didactic Strategy for Learning History of Art in Secondary Education. <i>Themes in Science and Technology Education</i>, 2009</p> <p>Chilisa, Bagele. "Post-colonial Indigenous Research Paradigms" <i>Indigenous Research Methodologies</i>, p.97-118</p>

<p>Week 5 Facilitation</p>	<p>Kass, Ray. "GIBB'S Tori theory of trust formation", <i>Theories of small group development</i> 4th edition, p.29-49</p> <p>Bohm, D., Nichol, L. (Ed.). "Participatory Thought", <i>On Dialogue</i>. London: Routledge. 1970 p.84-95</p> <p>"What Is VITAL in Social Justice Facilitation? • FacilitatingXYZ." FacilitatingXYZ, 23 Aug. 2016, https://www.facilitating.xyz/vital-in-social-justice-facilitation-aerial-kyle-ashlee/.</p>
<p>Week 6 Indigenous-settler collaboration</p>	<p>Roberts, Rose "Living in Respect: Traditional knowledge of the Woodland Cree in Norther Saskatchewan". <i>Radical Human Ecology: Intercultural and Indigenous Approaches</i>, 2012. p;221-234</p> <p>Never Alone - Iñupiaq Perspectives - Ron Brower, Sr. www.youtube.com, https://www.youtube.com/watch?v=gTEtK2fwKIE.</p>
<p>Week 7 Indigenous and Critical pedagogies</p>	<p>MacKinnon, Iain "Education for Life: Human Ecology Pedagogy as a Bridge to Indigenous Knowing". <i>Radical Human Ecology: Intercultural and Indigenous Approaches</i>, 2012. pp. 139-160</p>
<p>Week 8 VR review</p>	<p>The Halluci Nation - Indian City Ft. Black Bear (360° Virtual Reality Video). www.youtube.com, https://www.youtube.com/watch?v=BeGk8qn61Ik.</p> <p>Review Phi Centre viewings</p>
<p>Week 9 Virtual reality and Indigeneity</p>	<p>2167: Indigenous Storytelling in VR. www.youtube.com, https://www.youtube.com/watch?v=g7dTIB2ZjbY.</p> <p>May 10, CBC Radio . Posted, et al. "Indigenous Virtual Reality: An Experiment in 'Indigenization of Cyberspace' CBC Radio." CBC, https://www.cbc.ca/radio/unreserved/from-soapstone-carving-to-second-life-indigenous-peoples-in-quebec-embrace-tradition-and-technology-1.4645198/indigenous-virtual-reality-an-experiment-in-indigenization-of-cyberspace-1.4654306</p>
<p>Week 10 Indigenous paradigms</p>	<p>Chilisa, Bagele. "Chapter 4: Postcolonial Indigenous Research Paradigms" & "Chapter 5.1: Storytelling methods" <i>Indigenous Research Methodologies</i>, 2012. pp.97-128 &138-157</p>
<p>Week 11 Indigenous students</p>	<p>Gregory Martin, Vicky Nakata, et al "Promoting the persistence of Indigenous students through teaching at the Cultural Interface", <i>Studies in Higher Education</i>, 2017 vol.42 no.7 pp.1158-1173</p>

Table 3

SAMPLE OF OTHER IMPACTFUL EVENTS	
First Voices Week 2019	<ul style="list-style-type: none"> • Understanding Allyship: Panel Discussion and Workshop Vicky Boldo, Elizabeth Fast, Laurence Lainesse, Maya Cousineau Mollen https://www.facebook.com/events/2807484055932083/ • Inuit Carving Workshop Geta Eeyeechiak Etorolopiaq, Niap, and Simiuni Nauya https://www.facebook.com/events/298978247471571/ • Indigenous Knowledge in University Jean Becker https://www.facebook.com/events/1480435202087172/
First Voices Week 2020	<ul style="list-style-type: none"> • Work alongside Victoria May to organize Children Event
Lectures	<ul style="list-style-type: none"> • Reconciliation as Recolonization Alfred Taiaiake https://www.concordia.ca/cuevents/artsci/sdbi/2016/09/20/dr--taiaiake-alfred--reconciliation-as-recolonization.html • Wasáse Redux: Rethinking Indigenous Resurgence Alfred Taiaiake tinyurl.com/u66wy4mw • 2019 Unsettling event Keynote by Elizabeth Fast Group discussion led by Wayne Robinson
Films	<ul style="list-style-type: none"> • Angry Inuk Alethea Arnaquq-Baril / Canada / 2016 / 85 ' / Inuktitut - English • First Daughter and the Black Snake Keri Pickett / United States / 2017 / 94 ' / English - Ojibwe • Reel Injun Neil Diamond / Canada / 2009 / 86 ' / English
Others	<ul style="list-style-type: none"> • The inconvenient Indian Thomas King • CBC Massey lectures Thomas King • Nirliit Juliana Léveill�-Trudel & discussion with author of her experience organizing summer camps in Nunavik

Table 4

Appendix 3: Circle Visions Workshop Sample Material

WAPIKONI 360°

HEZ
We are so excited to have you with us for this week-long workshop on 360° cinematography. Here are a few tips on how to get you started!

Please meet us Thursday at 16h in the EB building (1250 Guy Concordia) in room 411 for our first get-together!

Tentative Schedule

Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Arrival	Storytelling	360 techniques	Filming	Folding	Editing
Orientation					Final screening

*Note: We are meeting downtown on Thursday, but all of our other activities will be held at Loyola.

Daily Schedule

8:55	Shuttle Departure
9:15	Breakfast
9:45	Workshop begins
12:30	Lunch
17:00	Dinner
17:30/55 or 18:30	Shuttle Departure

Emergency contacts

Lost? Running late? Forgot where exactly the best tool/liter can be found? Here our contact information in case of emergency:

Kester: 1-514-581-3899
Lar: 1-438-937-0890
Emilie: 1-438-926-9132

How to get to Loyola Campus

1) Take the Shuttle
The shuttle doesn't run on weekends, so we'll arrange alternative travel arrangements for those sleeping at the Grey Nite's residence. Situated right outside the Hall building (see map at the back), the shuttle will bring you straight to campus. To get to the workshop on time, please take the 9h30 shuttle. It takes about 15 minutes to walk from the residence to the point of departure.

2) Public Transit
If you're from Montreal and using public transit, you can either take the 105 O from Vendôme or the 51 O from Suroît until Sherbrooke & West Broadway.

Once you get to Loyola, make your way to the GJ building where the workshop is being held!

**circle visions:
indigenous aesthetics in 360°**

For the last four years Elizabeth Miller and Kester Dyer have been working in collaboration with Wapikoni Mobile to offer workshops for Indigenous filmmakers who were part of the Wapikoni Mobile rural program. Using co-creation as a method and in collaboration with Communication Studies professors and students such as Zaccary Dyck and Emilie Trudeau, they have developed immersive workshops for emergent indigenous filmmakers interested in emergent technologies.

This show features the work of emerging and advanced indigenous filmmakers who are using 360 for the first time.

Thanks to the collaboration of staff and faculty within Communication Studies at Concordia.

artists:

- Daphne Boyer combines plant material, high-resolution digital tools and women's traditional handwork to create art that showcases her family's Metis heritage. Her work honours plants as the basis of life on earth.
- Naomi Condo and Craig Commanda use music, poetry and moving images to guide viewers along their healing journeys.
- Karen Pinette Fontaine is a seasoned performer, writer and filmmaker who uses words and images to reclaim language and identity.
- Mélina Quitch-Niquay has been using her poetry and the atimaker language across diverse mediums to express her feelings and how she sees the world around her.

WORKSHOP DESIGN AND PRODUCTION
Lester Dye, Zaccary Dyck, Elizabeth Miller, Emilie Trudeau

This workshop was funded by a SSHRC Partnership Engage Grant.

Figure 7: Circle Visions Welcome Package & Exhibition Program

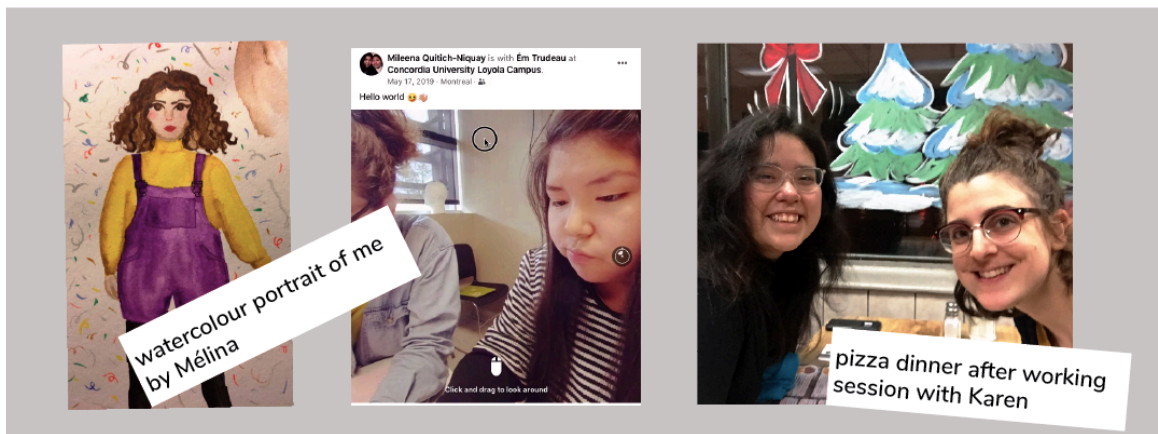


Figure 8: Photos taken during the workshop

CONTENTS

- 1 PRE-PRODUCTION
- 1.1 Story
- 1.2 Thinking and transmitting ideas in 360°
- 1.3 Why use 360°?
- 1.4 How will you use 360°?
- 1.5 How will your piece sound in 360°?
- 1.6 How will your 360° piece be viewed?
- 1.7 What are guides, and how can they be used to tell stories in new ways?
- 1.8 Sourcing locations with 360° in mind
- 2 PRODUCTION
- 2.1 Camera (Fusion 360°)
- 2.2 Lighting
- 2.3 Sound
- 3 POST-PRODUCTION
- 3.1 File structures
- 3.2 Exporting footage
- 3.3 Shooting with Fusion Studio
- 3.4 Setting up a Premiere workspace for 360 editing
- 3.5 Basic editing
- 3.6 Sound
- 4 EXPORTING, METADATA, AND DISTRIBUTION
- 5 NOTES, IDEAS AND DOODLES

1. PRE-PRODUCTION

It's important to plan for the form, aesthetics, and content of your final product in pre-production, before starting to shoot since 360° does not offer a lot of flexibility in post-production (see 3.0 Post-Production). Your final product may include effects or techniques that require specific techniques in production or editing.

1.1 Story

Just as some stories can be best told as graphic novels and others as podcasts, 360° is currently being used effectively for other and space-based storytelling.

Think of places or spaces:

- That matter to you
- To which you have unique access
- That are in transition or undergoing change
- With a unique history
- A meditative space – imagined or memory spaces

360° can also be used to:

- Place viewers at the front row to an activity, event, or historical moment
- Provide a unique experience of environments
- Engage in experiential learning or storytelling

1.2 Thinking and transmitting ideas in 360°

The key shift to make from regular filmmaking is, rather than looking at a scene through a frame, the viewers are part of the scene itself. The process of framing a shot in 360° is about the choreography of the space rather than the composition of an image from one perspective. Another shift in thinking is the idea of immersion. This immersion can also be disorienting as a viewer cannot see themselves within the scene.

An interesting exercise before you begin thinking to storyboard your piece (think visually and sonically) in a 360° environment. Draw out a sphere around a viewing point and place out where everything is happening and in the order. Then try to imagine what your viewer's situation would be focused on.

The simplest process for packing:

- Using the GoPro VR system, take a high-quality screenshot of the part of the image where you're interested.
- Open the image with any photo editor and use the clone stamp or content aware fill tool to fill in the top and bottom.
- Rotate and crop around your patch, with a feathered effect.
- Save the resulting image as a png file.
- In premiere, drop your image on top of your footage. Apply the effect Plane to Sphere (Video Effects/Immersion/Plane to Sphere).
- Looking down in your 360° preview window, use the X, Y, Z and scale sliders to place your patch over your viewport as well as you can.
- If you plan to manipulate the spatial projection of your video (environment names around a stationary viewer) use the patch and rotate video together to use as one clip within your project timeline.

1.6 Sound

- Ambionics files (on-camera audio from fusion, sync sound from a Zoom H5, Sound Devices Mixpre or Zoom H series with ambisonics plugin) can be dragged and dropped into premiere. Auto sync works as usual.
- If you have four mono tracks of sync sound recorded from plant mics or a microphone array, they must be rendered to four-track pods via the using Audition, Reaper, or Pro Tools before they can be synchronized and encoded in an Ambic wav file.
- If you have moving microphones (i.e. actors wearing level movement data cannot be recorded, and the best practice would be to use these tracks as user-labeled reference. You can still place these audio clips within a 360 environment, but it would be disorienting to see an actor cross a room, but have the source of their voice remain stationary.
- ***See sound guide for detailed ambisonic post-sound process.

Figure 9: Excerpt of 360° guide by Zaccary Dyck and I

Appendix 4: English script of Une Histoire de Rues

I often get lost in Montreal. In its seventy-five neighbourhoods and 6,000 streets.

Streets named after homeland heroes, landscapes, and even a few women. Streets I got to know throughout my walks, and that grow in scope with each passing year.

I grew up on Jean-Desprez, the pseudonym of a feminist author who chose a man's name to get published. So, technically, I could also have grown up on Laurette Larocque avenue.

My favourite spot to go for coffee, Saint-Laurent, is the street once chosen to be the linguistic division of the city. English to the west, French to the east.

Frontenac, the perfect street to watch the summer fireworks, is the name of a Governor General. Unlike a lot of people at the time, he did consider Indigenous people to be fully human... Still, he didn't hesitate to occupy... some might even say steal their land.

Donnacona is a minuscule street that commemorates a great Iroquoian chief. He's the one who saved the settlers from scurvy. And then he and his sons were kidnapped by

Jacques Cartier. They were paraded in front of the French king before dying in France, far from their land, three years later.

On the east side of town, a tiny street where my grandparents live honours the Mohawk feminist Myra-Cree. A chief's daughter, she was the first woman to host Radio-Canada's *Téléjournal*. She was also an activist for Indigenous languages, and a Knight of the National order of Québec

And then there's Amherst Street. He's the general who wanted to give smallpox infected blankets to the Indigenous tribes around him. It's a street that might have once been changed to Falardeau, a proud Québec separatist artist.

Eventually, it became Atateken Street. That was the choice of a committee. It had to be pronouncable in French and be short enough to fit in a street sign.

In Kanien'kéha, it means fraternity, kinship, equality...

It's a choice meant to bring people together and to reconcile, but it's a change that remains controversial. Because it's a fraternity that doesn't always translate into reality. It's a gesture that commemorates but that hides, that repairs but also erases.

Montreal's 6000 streets are 6000 choices. Choices that make up our identity.

Geographical landmarks of a History that often goes unnoticed, that's easy to forget, but impossible to erase.

Appendix 5: French Script of Une Histoire de Rues

Je me perds souvent dans Montréal. Dans ses soixante-quinze quartiers et ses 6000 rues. Des rues nommées en l'honneur d'héros de la patrie, de paysages, et même de quelques femmes. Des rues que j'ai appris à connaître au fur et à mesure de mes promenades, qui se sont élargies au rythme des années.

J'ai grandi sur Jean-Desprez, le pseudonyme d'une auteure féministe qui choisit un nom d'homme pour réussir à se faire publier. Ça fait que techniquement, j'aurais aussi pu grandir sur la rue Laurette Larocque.

Mon coin préféré pour prendre café, Saint-Laurent, c'est la rue qu'on avait choisi pour être la division linguistique de la ville. Anglais à l'ouest, Français à l'est.

Frontenac, la rue parfaite pour regarder les feux d'artifices en été, c'était un gouverneur général. Contrairement à beaucoup de gens l'époque, il considérait que les autochtones, c'était des humains. Il s'est quand même pas gêné pour occuper leur terres.

Donnacona, c'est une rue minuscule qui commémore un grand chef Iroquoien. C'est lui qui sauva les colons du scorbut. Lui et ses fils furent ensuite kidnappés par Jacques Cartier. Ils furent paradés en France devant le roi avant d'y mourir, loin de leurs terres, trois ans plus tard.

Dans l'est de la ville, une toute petite rue où habite mes grands-parents honore la féministe Mohawk Myra-Cree. Fille de chef, elle a été la première femme à animer le Téléjournal de Radio-Canada. C'était aussi une militante pour les langues autochtones, et une chevalière de l'ordre national du Québec.

Et puis y'a la rue Amherst. Lui, c'était un général qui voulait partager des couvertures infectées de varioles aux peuples autochtones autour de lui. C'est une rue qu'on a déjà voulu changer pour Falardeau, un fier artiste nationaliste québécois.

Puis finalement, c'est devenue la rue Atateken. C'était le choix d'un comité, qui devait pouvoir se dire en Français, et être assez court pour fitter dans un panneau de rue. En Kanien'kéha, ça veut dire fraternité...

C'est un choix qui se veut rassembleur et réconciliateur, mais c'est un changement qui reste controversé. Parce que c'est une fraternité qui se traduit pas toujours dans la réalité. C'est un geste qui commémore mais qui cache, qui répare, mais qui efface aussi.

Les 6000 rues de Montréal, c'est 6000 choix. Des choix qui construisent notre identité collectives. Des repères géographique porteurs d'une histoire qui reste souvent innaperçue, qui est facile à oublier, mais impossible à effacer.

Appendix 6: English script of *Langue Leçons*

Written by Karen Pinette Fontaine. English translation by Émilie Trudeau

Day 1

I left because I couldn't stand it anymore. The looks I get are a mix of confusion and disappointment. They sometimes come with a joke that insinuates that I'm not a real Innu, or that I have a white person's accent when I try. There are less expectations in the city so I'm not as afraid to try and speak, I learn faster here than over there. Each word and sentence brings me closer to my identity and my community so far away from me. I'm looking forward to go back. I miss the beach, the dogs, the Makusham songs.

Words of the day: Kamikuat, Kauapinuat, Kauapat. Over.

Day 16

I called my mom, she's doing well. I wanted to speak to dad but she told me: "..."

Words of the day: Nikanish, Unakan. Over.

Day 30

I didn't learn anything. Over.

Day 37

It's nice outside, I looked in my notebook to see if I knew a word to describe that temperature, but I discovered that I hadn't learned the months of the year, the seasons and the times of the day. I'll look them up after class.

Words of the day: Tetapuakan, Uashtenimakan, Mitsuap. Over.

Words of the day: Mishtik, Massin, Minapui. Over.

Day 55

I think it's a bit ridiculous that I used a colonial invention as proof that I am Innu. I used the fact that I grew up in a reserve to strengthen and even prove my identity. The reserve was my armour and I lost it. Now, I live in the city, I don't speak my language and I don't know my culture. I don't know who I am anymore.

Words of the day: Inniminan, Anushkan, Uteiminan. Over.

Day 63

I have to pack tonight. My sister is going to give birth to her first child. She's hesitating between the names Annie and Uapikun.

Words of the day: Utapan, Netupiss, Nitassian.

Appendix 7: French script of *Langue Leçons*

Written by Karen Pinette Fontaine

Jour 1

Je suis partie parce que j'en pouvais plus. Les regards qu'on me donne sont un mélange de confusion et de déception. Ça vient parfois avec une joke qui insinue que je suis pas une vrai Innue. Que j'ai un accent de blanc quand j'essaye. Y'a moins d'attente en ville ça fait que j'ai moins peur d'essayer de le parler, j'apprends plus vite ici que là bas.

Chaque mots et chaque phrase me rapproche de mon identité et de ma communauté qui est loin de moi. J'ai hâte d'y retourner. Je m'ennuie de la plage, des chiens, des tounes de Makusham.

Mots du jour: Kamikuat, Kauapinuat, Kauapat. Over.

Jour 16

J'ai appelé ma mère, elle va bien. J voulais qu'elle me passe papa mais elle m'avait dit:

(...)

Mots du jour: Nikanish, Unakan. Over.

Jour 30

J'ai rien appris. Over

Jour 37

Y fait beau dehors. J'ai regardé dans mon cahier de note si j'avais un mot qui décrivait cette température. Mais j'ai découvert que je n'ai pas appris les mois de l'année, les saisons et les moments de la journée. Je vais me renseigner après mon cours.

Mots du jour: Tetapuakan, Uashtenimakan, Mitsuap. Over.

Mots du jour: Mishtik, Massin, Minapui. Over.

Jour 55

J'y pense et c'est un peu ridicule qu'une invention coloniale me serve de preuve que je suis Innue. Je me servais du fait que j'ai grandi dans une réserve pour renforcer même prouver mon identité. La réserve était un bouclier j'lai perdu. Maintenant je vis en ville, je parle pas ma langue et je connais pas ma culture. Je sais plus qui je suis.

Mots du jour: Inniminan, Anushkan, Uteiminan. Over.

Jour 63

Je dois faire mes valises ce soir. Ma soeur va bientôt accoucher de son premier enfant. Elle hésite entre Annie et Uapikun.

Mots du jour: Utapan, Netupiss, Nitassian.

Appendix 8: English study guide for Une Histoire de Rues

CIRCLE VISIONS
CROSS-PLATFORM
DOCUMENTARY
WORKSHOPS

UNE HISTOIRE DE RUES

by *Émilie Trudeau*

In this piece, Montreal's toponymic heritage is articulated to reveal the history contained in facets of the city that are often reduced to simple geographical markers. From Jean Desprez to Saint-Laurent, from Donnacona to Frontenac, from Amherst to Atateken, the ideology of a collective identity is revealed through its cartography.

“It’s a choice meant to bring people together and to reconcile. It’s a choice that commemorates but that hides, that repairs but also erases.”

PROMPTS FOR REFLECTION

- Choose streets that are significant to you. Where do their names come from? What is the history those names? What do our choices of street names reveal about our society?
- Le terme choisi pour remplacer ‘Amherst’ devait avoir une orthographe française, une longueur raisonnable et pouvoir être facilement prononcé en Français. Quel est le raisonnement derrière ces paramètres?
- When replacing ‘Amherst’, the committee had to choose a word that could be written with French letters, easily pronounceable and be of reasonable length. What is the reasoning behind these parameters?
- Although Amherst is no longer in use in Montreal, other controversial figures are still present, including the statue of John A. Macdonald. This prime minister had a major impact on the foundation of Canada, but was also responsible for, among other things, racist policies, the Indian Act and residential schools. His statue in the city centre is often vandalised. How do you think we should deal with the violent aspects of nation building? What is the immediate impact of changing the name of Amherst Street to Atateken? What will be the long-term impact? What would be the impact of removing the statue of John A. Macdonald? To leave it? What other options should be considered?

CIRCLE VISIONS is a community-building initiative that offers training in storytelling and new media technologies to empower Indigenous filmmakers, activists and artists. For more information: <http://redlizardmedia.com/circlevisions/>

Study guide created by *Émilie Trudeau*



Appendix 9: English study guide for Langue Leçons

CIRCLE VISIONS
CROSS-PLATFORM
DOCUMENTARY
WORSHOPS

LANGUE-LEÇON

by Karen Pinette Fontaine

Raised in Mani-utenam, a community in Côte Nord famous for its musical inclinations, Karen Pinette Fontaine is a seasoned singer-songwriter. In this immersive experience, she uses the circular frame as a poetic device to invite viewers to share in her ongoing process of recovering the Innu-Aimun language.

“It’s a bit ridiculous that I used a colonial invention as proof that I am Innu. The reserve was my armour and I lost it.”

PROMPTS FOR REFLECTION

- In the film, the protagonist’s sister is debating between naming her daughter Uapikin or Annie. How might each name affect her daughter’s sense of belonging differently? What’s the relationship between naming and belonging? If she asked you, what would you suggest?
- Words shape the way we understand history. For instance, ‘coureurs des bois’, a foundational figure of Québec’s history is usually translated as ‘fur-trader’ in English. How are the two terms different? How would knowing ‘coureurs des bois’ as ‘marchand de fourrure’ affect your understanding of that period of history?
- ‘Learning from the land’ is an important part of Indigenous pedagogy, and is reflected in many Indigenous languages. For instance language can be used to assign meaning to times of the year. In Innu-Aimun, “Uashtessiu-Pishimu” means “The month when the leaves become yellow”, in Attikamekw “Namekosi Pisisiw” means “Trout Spawns moon”, and in Mohawk/Kanien’keha “Kenténha” means “Time of some poverty in nature”. All of the above are translated in English as ‘October’. What kind of knowledge can be lost in translation? How are the names of the months significant to the nations mentioned above?
- “I think it’s a bit ridiculous that I used a colonial invention as proof that I am Innu. I used the fact that I grew up in a reserve to strengthen and, even prove my identity.” How do you interpret this? Why do you think the protagonist felt the need to use her reserve in that way?
- Indigenous communities where over half of the population speak their ancestral language have a suicide rate six times lower than communities where fewer people can use their native tongue. Why do you think that is? What does the ability to use the language your grand-parents and great-grand parents knew has to do with your conception of self?
- The French language is one of the pillars of Québec’s cultural identity, as reflected by the many laws, cultural events, and organizations aiming to promote its usage. Historically, why was it important for Québec to protect its language? Why are there still protocols in place to do so? How does this parallel and contrast the status of Indigenous languages?

CIRCLE VISIONS is a community-building initiative that offers training in storytelling and new media technologies to empower Indigenous filmmakers, activists and artists. For more information: <http://redlizardmedia.com/circlevisions/>

