

Finding Voices: Bringing the Archive into History Classrooms

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Abstract

Finding Voices explores the relationship between archives, technology use, and history classrooms and textbooks. Through recent studies and projects, history textbooks have continuously omitted racialized and marginalized histories in Canadian education and often privilege settler-colonial perspectives. This sidelining creates an erasure that negatively impacts students' capacity for historical analysis. This research aims to shift this paradigm through augmented reality, archival research, and curation. The research questions include: How might engaging with history through artefacts open conversations, inquiries, and curiosity on social justice issues? How might the use of augmented reality combined with pedagogy transform Canadian history learning? How can the method of a/r/tography support the Ontario Ministry of Education's learning expectations and outcomes while introducing difficult knowledge (Pitt & Britzman, 2003)? What are the pedagogical and creative approaches that teachers and curriculum developers can use to help students learn about, and learn from (Pitt & Britzman, 2003) silenced histories within the classroom? This research was done in four stages: 1) finding archival materials from various archival institutions; 2) creating an app prototype using website-based AR and creating an archive box with the archival materials collected; 3) recruitment of BEd Teacher Candidates; and 4) collecting user experience data across multiple contexts (observation notes/conversations, multiple surveys, workshops, and participatory collaboration in the form of an exhibition). Findings conclude that the participants found this method of learning history engaging and inspired them to consider ways archived-engaged AR pedagogies could be utilized in their own practice.

Keywords: history education, archives, a/r/tography, arts-based research, augmented reality, observational research, surveys, participatory action research, art exhibition

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Table of Contents

ABSTRACT	II
ACKNOWLEDGEMENTS	III
TABLE OF CONTENTS	IV
LIST OF FIGURES	VI
CHAPTER 1: INTRODUCTION	8
1.1 THE RESEARCH PROJECT.....	10
1.2 SITUATING THE RESEARCHER.....	15
1.3 SIGNIFICANCE	18
1.4 OVERVIEW OF THE DISSERTATION	19
CHAPTER 2: HISTORICAL BACKGROUNDS AND LITERATURE REVIEW	21
2.1 THE SS KOMAGATA MARU: CANADA’S IMMIGRATION FAILURE WITH BLOODSHED	22
2.2 HOW NATIONAL CULTURAL POLICIES SHAPED HISTORY EDUCATION	24
2.2.1 <i>Egerton Ryerson’s Influence on Education</i>	24
2.2.2 <i>The Multiculturalism Act and Curricular Reform</i>	25
2.3 THE HISTORY OF HISTORY TEXTBOOKS.....	28
2.4 AN OVERVIEW ON CURRICULUM DOCUMENTS FOR HISTORY EDUCATION.....	33
2.5 EXAMINING BELONGING AND CITIZENSHIP IN HISTORY EDUCATION	37
2.5.1 <i>Complicating Belonging</i>	46
2.6 WHAT IS AUGMENTED REALITY? DEFINITION AND HISTORY.....	49
2.7 CONCLUDING THOUGHTS	50
CHAPTER 3: A CONSTELLATION OF THEORETICAL FRAMEWORKS	53
3.1 AN INTERVENTION FOR HISTORY CLASSROOMS.....	53
3.2 THE ARCHIVE IS ALIVE!	58
3.3 MEMORY AND RESISTING COLONIAL MEMORIALIZATION	64
3.4 ACCOUNTABILITY THROUGH GHOSTS AND SPECTRES	70
3.5 MULTIMODAL LEARNING AND SPECULATIVE FUTURES	72
3.6 THE NULL CURRICULUM.....	81
3.7 HISTORY EDUCATION AND DIFFICULT KNOWLEDGE.....	84
3.8 I CREATE AS I LEARN... ..	88
3.8.1 <i>Examples of Augmented Reality as Pedagogy</i>	90
3.9 CONCLUDING THOUGHTS	92
CHAPTER 4: METHODS & METHODOLOGY	95
4.1 VISUAL RESEARCH METHODS.....	95
4.2 ARCHIVAL RESEARCH METHODS	102
4.3 OBSERVATIONAL DOCUMENTATION METHODS FOR THE EXHIBITION AND STUDY.....	106
4.4 CO-CREATING AN ARCHIVE AND EXHIBITION THROUGH PARTICIPATORY ACTION RESEARCH	108
4.5 DATA COLLECTION THROUGH SURVEYS	112
4.6 CONCLUDING THOUGHTS.....	114

CHAPTER 5: CREATING THE ARCHIVE BOX AND WEB AR APP.....	117
5.1 VISITING THE ARCHIVE: A/R/TOGRAPHY AND RESEARCH	118
5.1.1 Day 1 – Getting Acquainted with the Archive	119
5.1.2 Day 2 – Narrowing Down the Photographs	128
5.1.3 Day 3 - Microfilms	133
5.2 TRIAL AND ERROR, TRIAL AND ERROR, TRIAL AND SUCCESS: CREATING THE WEB-AR SITE	137
5.3 CREATING THE ARCHIVE BOX.....	140
5.4 CONCLUDING THOUGHTS	142
CHAPTER 6: CURIOSITY, QUESTION-ASKING AND ENGAGING WITH THE PAST THROUGH INTERACTIVE WORKSHOPS WITH TEACHER CANDIDATES.....	144
6.1 RECRUITING, FAILING, RECRUITING, ONBOARDING... AN ITERATIVE PROCESS	144
6.1.1 Student Profiles	147
6.2 BEFORE ENGAGING WITH THE ARCHIVE BOX (SURVEY 1)	150
6.3 ENGAGING WITH THE ARCHIVE BOX (SURVEY 2 & OBSERVATION/DOCUMENTATION).....	158
6.4 THE WORKSHOP (SURVEY 3 & OBSERVATION).....	176
6.5 CONCLUDING THOUGHTS	180
CHAPTER 7: THE EXHIBITIONS: A/R/TOGRAPHY AND PEDAGOGY	184
7.1 CONTRIBUTIONS TO THE EXHIBITIONS	184
7.2 PREPPING AND INSTALLING THE WORKS	189
7.3 EXHIBITION AND RECEPTIONS	195
7.3.1 January 22 – Feb 1, Opening Reception on January 25	195
7.3.2 April 2 – 5, Closing Reception on April 5.....	201
7.4 DEBRIEF (SURVEY 4).....	205
7.5 CONCLUDING THOUGHTS	208
CHAPTER 8: REIMAGINING HISTORY EDUCATION USING A/R/TOGRAPHY ...	211
8.1 REIMAGINING HISTORY EDUCATION—A TOOLKIT	211
8.2 ADDRESSING BARRIERS	213
8.3 CONCLUSION AND FUTURE DIRECTION	213
BIBLIOGRAPHY	216
APPENDICES.....	237
APPENDIX A: CONSENT FORM	237
APPENDIX B: CALL FOR PARTICIPANTS! (RECRUITMENT PACKAGE)	241
APPENDIX C: EMAIL TEMPLATE FOR GALLERIES	249
APPENDIX D: INFO-SESSION POWERPOINT SLIDES	250
APPENDIX E: SURVEY 1 QUESTIONS AND PARTICIPANTS’ ANSWERS	256
APPENDIX F: SURVEY 2 QUESTIONS AND PARTICIPANTS’ ANSWERS	264
APPENDIX G: PHASE 2 WORKSHOP POWERPOINT SLIDES	271
APPENDIX H: SURVEY 3 QUESTIONS AND PARTICIPANTS’ ANSWERS.....	285
APPENDIX I: APPROVED POSTERS	287
APPENDIX J: AUGMENTED REALITY CATALOGUE	289
APPENDIX K: SURVEY 4 QUESTIONS AND PARTICIPANTS’ ANSWERS.....	290

APPENDIX L: DEBRIEF LETTER	297
APPENDIX M: COMMENTS FROM THE EXHIBITIONS	299
APPENDIX N: FIELD/OBSERVATIONAL NOTES	302
APPENDIX O: TOOLKIT FOR HISTORY EDUCATORS	312

List of Figures

Figure 1 Project Design Chart.....	15
Figure 2 Library and Archives building front (left), Lea Vivot sculpture (right).....	120
Figure 3 The British Columbia Members for the Canadian House of Commons/ Henry Herbert Stevens fonds/ LAC / 200496.....	122
Figure 4 David Millar fonds / Library and Archives Canada / R11968-0-0-E.....	124
Figure 5 Microfilm Room / Library and Archives Canada / January 12, 2023	130
Figure 6 Missing Fonds (ten Sikh Soldiers), installation, Living With Things opening reception, April 4, 2019, Open Space Gallery, Toronto.....	141
Figure 7 Student A engaging with the archive box, January 6, 2024, Sensorium Loft, York University	160
Figure 8 Student B engaging with the archive box, January 12, 2014, Sensorium Loft, York University	163
Figure 9 Student C engaging with the archive box, February 13, 2024, Sensorium Loft, York University	167
Figure 10 Student D engaging with the archive box, February 15, 2024, Sensorium Loft, York University	170
Figure 11 Student E engaging with the archive box, February 16, 2024, Winters College room 113B, York University	173
Figure 12 Example of workshop, January 16, 2024, Sensorium Loft, York University	178
Figure 13 Examples of AR works.....	185
Figure 14 Empty gallery space, Eleanor Winters Art Gallery, York University	191
Figure 15 Prepping the gallery space, EWAG, January 19-20, 2024	192
Figure 16 Affixing works on the walls, EWAG, January 21 (left) & April 3 (right).....	193
Figure 17 Lighting the gallery and works, EWAG, January 23	194
Figure 18 Exhibition set up, EWAG, York University.....	196
Figure 19 Opening Reception, EWAG, January 25, 2024.....	197

Figure 20 Dr. Thumlert's class in the exhibition space, January 29, 2024	199
Figure 21 Set up for Part 2 of the exhibition, EWAG, April 4	202
Figure 22 Closing Reception, EWAG, April 5, 2024	204
Figure 23 Affair at Singapore / David Millar fonds / LAC / R5813-1-5-E	328
Figure 24 Another Batch of Hindus are Coming / Toronto Star Archives	329
Figure 25 Hindus sail for home, beer, sheep, and fowl / Toronto Star Archives	330
Figure 26 Gurdik Singh makes some more demands / Toronto Star Archives	331
Figure 27 The British Columbia Members for the Canadian House of Commons/ Henry Herbert Stevens fonds/ LAC / 200496.....	332
Figure 28 Immigration Officers (Insp. Reid), HH Stevens and reporters "Komagata Maru" / David Millar fonds/ LAC / R5813-1-5-E	333
Figure 29 Inspector Reid (centre left) and HH Stevens (centre right) on board the "Komagatamaru" in English Bay / David Millar fonds/ LAC / R5813-1-5-E	334
Figure 30 Troops / David Millar fonds/ LAC / R5813-1-5-E.....	335
Figure 31 Sikhs in turbans aboard the Komagata Maru / David Millar fonds/ LAC / R5813-1-5-E	336
Figure 32 Sheetal Prasad, Komagata Maru ship, bronze plaque, 2017	337

Chapter 1: Introduction

Recent political events, such as the toppling of the statue of Egerton Ryerson (CBC News, 2021) and the ongoing discovery of human remains at so-called Indian Residential Schools (Dickinson & Watson, 2021) across Canada, have exposed traumatic histories of racist violence in Canada. These events speak to the need to revise and revitalize existing curricular approaches to history education so that students are better prepared to challenge systemic racism. Given the ongoing impacts of traumatic histories on citizens in contemporary multicultural Canada, the omission of racialized and marginalized histories from K-12 level curriculum texts must be systemically addressed. The Canadian history curriculum issued by the Ontario Ministry of Education (2023; 2018) is framed through a settler-colonial perspective in which marginalized and racialized groups are often pushed to the sidelines of “common” curriculum policy and delivery (Leonardo, 2013, p. 26). The lives and lived experiences of racialized and marginalized historical agents are sparsely recognized in the public-school history curriculum, making clear that an “informed historical imagination is crucial” (Karn, 2023, p. 91) for a holistic history education.

The state archive consists of a repository of objects that represent the “national past” left behind, including photographs, videos, diaries, trinkets, and documents. Sociologist Sherry Turkle (2007) describes the fascination that historical objects hold, arguing that researchers, educators, and students can develop “a sense of vocation to becoming attentive to the details of people’s narratives” (Turkle, 2007, p. 51). By considering these objects as “evocative objects,” the “object-to-think-with,” in Turkle’s words, allows researchers, educators and students to begin to question the sociological and historical implications of these objects, including “number, space, time causality and life” (Turkle, 2007, p. 51). Referencing anthropologist Claude Lévi-

Strauss' (1966) notion of *bricolage*,¹ Turkle reminds us “that our learning is...personal” as we explore, take apart, feel, and understand objects (Turkle, 2007, p. 51). Inviting students (and to a greater extent, teachers) to be curious in an archive can therefore increase their engagement with the social and historical implications of evocative objects; through this, students can gain a better understanding of the historical contexts of social justice issues that continue to seep into our present lives.

My research shifts away from the colonial paradigm (nationalistic narratives) using research-creation, augmented reality (AR), archival research, and curatorial intervention methods. This project includes the following components: creating an archive box that can be activated through AR, inviting pre-service teachers (PSTs)/BEd students to engage with history and contribute to the box; collaborating with the students to design and exhibit their research contributions for public engagement; observing how people interact with the works; and creating a toolkit that is open access to the teacher. Including multiple perspectives to an existing narrative can not only combat against singular narratives of understanding a historical event but also allow students and teachers to engage with history with curiosity rather than it being a boring subject that they are mandated to take or teach.

This project presents a possible departure from what students currently do in history classrooms, wherein learning is often driven by lectures about the chapter or unit dictated by the approved history textbook(s) and Ministry Guidelines. According to the Ontario History and Social Science Teachers' Association (OHASSTA), a ‘mind-shift’ is currently happening in Ontario where teachers are looking towards creating inquiry-based connections with students to

¹ Bricolage: the method of combining and recombining objects to create new meanings and narratives (Strauss, 1966).

create forms of historical representation (Black, 2020). OHASSTA president Rachel Collishaw calls for a curriculum that can aid students in navigating sensitive and controversial topics such as LGBTQ+ history and the history of BIPOC trauma and resiliencies, and forms of historical self-representation (Black, 2020). Even with this “mind-shift,” such topics are usually swept under the rug as they are not part of the 12 “overall expectations” outlined in the Ontario Ministry of Education’s curriculum guide for History and Social Sciences, or not deemed politically relevant (Black, 2020). *Finding Voices* therefore aims to fill this gap by providing an experiential toolkit to help teachers navigate difficult knowledge with students while also raising discussions on social justice issues that we currently see cycling in from history.

1.1 The Research Project

Titled “Finding Voices: Bringing Archives into History Classrooms,” this project explores the following research questions: How might engaging with history through artefacts open students to conversations about, inquiries into, and curiosity around social justice issues? How might the use of augmented reality, combined with pedagogy, transform Canadian history learning? How can the method of *a/r/tography* support and reimagine the Ontario Ministry of Education’s learning expectations while introducing difficult, silenced, traumatic, and erased knowledge and history (Pitt & Britzman, 2003; Simon, 2005)? What might the strategies artists use to activate the archive offer to teachers in the history classroom? How might artistic tools for visiting with ghosts (the presence of historical figures in the archives) be taken up by students and teachers in their encounters with history?

To answer these questions, my dissertation project utilizes *a/r/tography* as a central critical and creative method. First coined by arts researcher Rita L. Irwin in the early 2000s, *a/r/tography* intertwines artmaking, researching, and teaching as a form of theorizing and practicing (Irwin,

2013). According to Irwin, a/r/tography pursues four related goals: “(1) a commitment to inquiry; (2) a commitment to a way of being in the world; (3) a commitment to negotiating personal engagement in a community of belonging; and (4) a commitment to creating practices that trouble and address difference” (p. 201). In classrooms, a/r/tography offers educators the chance to experiment with their pedagogies through creative means, while for students, a/r/tography affords the opportunity to be interdisciplinary. This dissertation expands the definition of a/r/tography by integrating augmented reality (AR) as both a methodological tool and a creative medium and, as such, extends pedagogical capacity for interdisciplinary inquiry. By incorporating AR, my dissertation adds a new tool to an a/r/tography framework that foregrounds spatial, temporal, and interactive possibilities for meaning making.

AR transforms a/r/tography by enabling participants to engage with layered narratives, histories, and materialities. It augments the tactile and visual aspects of artistic inquiry, allowing viewers and co-creators to move through and interact with evolving stories rather than passively consuming them. AR has the potential to deepen reflection in viewers and foster new forms of collaboration between users and learners, thus complicating history’s supposed linearity. AR as a tool in a/r/tography has the potential to reimagine the research encounter as a site of augmented, embodied, and participatory knowledges.

By emphasizing process over product and participation over separation, a/r/tography challenges the rigid structures of conventional educational research. This approach invites knowledge to emerge through students’ embodied practice, critical reflection, and creative expression, making space for multiple epistemologies. Ultimately, a/r/tography not only enriches learners’ understanding through multimodal engagement but has the potential to also foster reflective and meaningful learning outcomes for students and teachers while also engaging in a

form of critical public pedagogy as students interact with a create alongside various archival elements. By framing the classroom as a site of critical public pedagogy, my project builds on Henry Giroux's definition of public pedagogy as a form of resistance, where discussions of class, race, and gender come to the forefront in resisting the ideologies of the dominant settler-colonial narrative in education (Giroux, 2003, p. 10). By including racialized and marginalized voices within history curricula and delivering it to students in engaging, multimodal, and sensory ways, teachers and artists working in the classroom can inspire students to become aware of, and civically active around, ongoing social justice issues in Canada. This is particularly important in non-elective history courses, where nationalistic and colonial narratives are often privileged by virtue of established required material.

Accordingly, this project examines the mandatory history curriculum in Ontario which begins in Grade 7, with Canadian history courses accounting for events taking place between 1713-1850 and ending in Grade 10 (applied and academic streams) with Canada since World War I (excludes Grade 9).² This grade level is also when students are introduced to topics such as civic duty, nationalism, military politics, and government formations. History classrooms are usually supplemented with textbooks to aid the teacher and students in keeping track of timelines and events specific to history. In addition, the textbook may include a teacher's guide that will include learning outcomes, and close-ended content-based assessment forms that require students to reproduce pre-determined representational content knowledge.

² In Fall of 2021, schools in Ontario have decided to end streaming of certain subjects for grades 9 and 10. Instead of Locally Developed, Applied and Academic options, grades 9 and 10 courses will have Locally Developed and Academic options. While grade 10 history course is not de-streamed, depending on the school, history currently offers Locally Developed and Academic (removing the Applied option to reflect the grade 9 de-streamed Geography course) even though this is not reflected in the 2018 Ontario Ministry of Education curriculum guidelines (York Region District School Board, 2022).

While Ontario history textbooks are useful for historical inquiry, they also fluctuate in whose narratives and voices from racialized and marginalized communities are heard. Additionally, publishing timelines are long and are often not updated to fit with current pedagogical changes. For example, the textbook used during my secondary school Grade 10 history education (2011-2012) utilized the textbook titled *Canada: A Nation Unfolding* (2000), which was initially published in 1994 and then revised in 2000. This textbook was used for the 2005 version of the curriculum. The six-year delay in updating this textbook makes it difficult to catch up with transformations in contemporary society, evolving curricula, and in critical and media-based pedagogies. In consultation with my teacher colleagues, they have pointed out that the textbook that they use for the current 2018 revised version of Grade 10 history curricular guidelines either use the textbook issued for the 2013 version or no textbooks at all [R. Collis, personal communication, May 21, 2025; G. Sidhu, personal communication, May 22, 2025]. This signals a shift in how history education at this grade level, with increased reliance on external sources and research.

Additionally, school board districts have recently pledged to no longer offer all applied courses (history included in the Peel District School Board) in secondary schools as of 2024. Academic streaming is the process where students are differentiated into different perceived academic abilities for the same subject. In Ontario, streaming for Grade 9 and 10 core subjects (Maths, English, Sciences, History, etc.) in secondary schools are divided into three streams (academic, applied, locally developed/open). In 2021 the Ministry of Education introduced de-streaming for Maths, Sciences and English core subjects after positive results from a pilot test in the late 90s. De-streaming involves only one academic stream (de-stream/open), and all students learn on the same level. Given these shifts in course delivery models, many teachers have opted

to forego the textbook in favour of history-related articles, books, and media sources for information.

Building on this need for alternative forms of history resources, this dissertation provides future teachers, teacher candidates, and educational researchers with an open access form of knowledge mobilization in the form of an archive box and augmented reality toolkit. While this project focuses on archival research into the Ontario perspective on the so-called Komagata Maru Incident of 1914, the teacher candidate participants I worked with were free to research any Canadian historical event(s). I chose the Komagata Maru Incident as the inspiration for my research prototype, shared with teacher candidate participants as a possible model to follow, because its archival residues evoke the contested histories of Canadian immigration policy, identity politics, community engagement and efforts towards national memory and memorialization. This historical event is generative for encouraging the participants (and by extension, their students) to engage with Canadian history through a cross-historical and comparative approach of the Komagata Maru immigration failure; a model which might be generatively applied to a range of similar historical events about which marginalized voices are often excluded.

This project was conducted with Pre-Service Teachers (PSTs)/Teacher Candidates in York University's Bachelor of Education (BEd) program (known colloquially as Teacher's College). The BEd program curriculum relies heavily on one part theory and the other part on practice. The PSTs navigate not only classes but also classrooms in the form of practicum/placements. The PSTs in this research project provide an interesting perspective as not only students but also as future teachers. Their liminal position in this intersection allows for this project to examine candidly how: 1. Teachers can reimagine their history classrooms to be a site of critical

engagement, and 2. Students can navigate multiple perspectives in Canadian history through a multimodal and creative lens. Accordingly, this project was done in multiple phases, taken into account the unique affordances of research with PSTs.

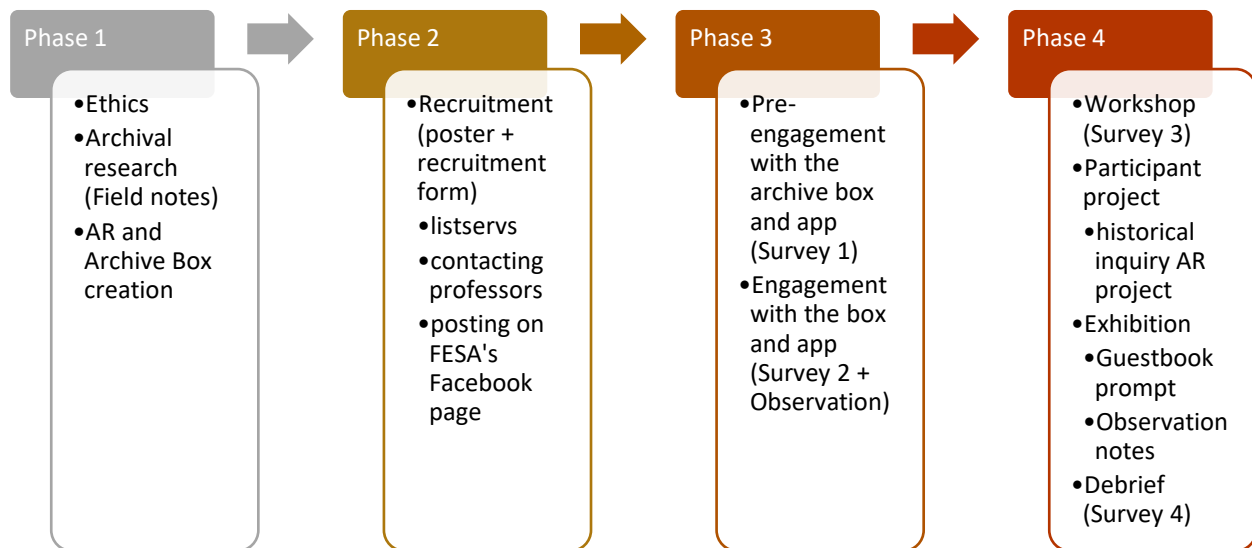


Figure 1 Project Design Chart

1.2 Situating the Researcher

As an artist researcher, I am a racialized body working with the colonial archive. Being of South Asian descent (Fijian with Indian ancestry) provides me with a unique perspective on the dominant narratives that often characterize Canadian history in contemporary classrooms. I walk a thin line of having privilege through my position as a university-affiliated researcher, but I also always feel the precarious nature of my presence there.³ I am hyper aware of identity clashing against the colonial institution and the ongoing risk of critiquing the institution for their lack of support for racialized and marginalized students. My role in the archives is therefore necessary to

³ In my experience, those who choose to make work about their identity were often criticized by those in power and pushed to not do this because it is considered not “scholarly.” This echoes how high school students in the United States have gotten into trouble for writing or creating (art)works that touch on social justice issues such as abortion rights as schools perversely try to infantilize teens through the notion of innocence.

facilitate the emergence of racialized and marginalized voices into history classrooms. Furthering the critique of mechanisms of marginalization, history textbooks can also be viewed as a collection of evocative objects via the archival photographs strewn throughout the textbooks. However, racialized groups are often excluded (or included in ways that are convenient to and map nicely with dominant historical narratives) from the textbooks utilized, influenced by Ministry guidelines regarding how Canadian history should be seen and understood. Positioning myself further, I am also aware that as a non-Ontario Certified Teacher (OCT) member/teacher, I come into this project as an outsider and have needed to consider the ethics of working with students as a non-accredited researcher inhabiting educational spaces.

While my project is an extension of my MFA thesis, the inspiration for this project is three-fold: 1) when I was young (tween years), I was obsessed with the *Dear Canada* book series (2001-2016) that details the lives of young girls during historical events in Canada; 2) my former high school history teacher detailed his life in Romania during Soviet occupation to give a chilling perspective to a historical event that even I was desensitized to; and 3) during my undergrad on a car ride home to Orangeville, my dad told me how in Fiji he was not taught about the Indentured Servitude Era (my ancestors' experiences) and that Fiji has recently been acknowledging this history. These moments (and probably more) contributed to a growing portfolio and research aiming to shift how we teach and learn about history, as well as an awareness to silenced histories.

My experiences in the academy are emblematic of the complicated, often contradictory, politics of belonging in the Canadian history education. This dissertation for instance, proposes positioning the national military as an example of both the state's infliction of violence as well as a site of victory and inclusion for some racialized groups who were otherwise discriminated

against by the nation state's official policies. While I criticize the government's use of the military to inflict violence against racialized groups, as seen through the Oka Crisis and the Black Lives Matter movement, I also open space for victories through the inclusion of marginalized and racialized folks in the military, such as the first all-Black battalion in World War I (Ruck, 2022). I believe that these paradoxes open conversations on being critical, rather than ignorant, of social justice issues. In this way, my project builds upon the work of sociologist Renisa Mawani (2018) in tracing racial and colonial histories as an alternate genealogy (narrative) that challenges the dominant discourse surrounding the Komagata Maru event. Even though I will be focusing on a specific historical event, this dissertation is a projection of an imagined means of engaging with multiple perspectives and representations within Canadian history in non-traditional ways, including identifying forms of self-representation that may be inconvenient to dominant narratives. For example, Black Canadian history scholar Robyn Maynard (2017) provides the reader with a comprehensive understanding of surveillance, criminalization, and punishment of Black lives throughout history. This perspective confronts the mainstream and typical knowledge of Canadian history education, which echoes today's call-to-action on protecting Black lives (Maynard, 2017). I also build on Indigenous scholar Jodi A. Byrd and historian Michael Rothberg's (2011) call for researchers to "decathect from the space of colonization" by opening some kind of space to hear and make sense of dissonant archival voices (Byrd & Rothberg, 2011, p. 5).

Critically analyzing how the province creates national knowledge via the curriculum, my project draws on activist and legal studies scholar Harshia Walia's (2021) description of borders in both the literal and metaphorical sense. Walia (2021) describes borders as a form of asserting dominance, stating that "border crises are not merely domestic issues to be managed through

policy reform [but rather] they must instead be placed within globalized asymmetries of power inscribed by race cast class gender sexuality and ability and nationality” (Walia & Kelly, 2021, 3:45:00-4:03:00). Within my home discipline of education, we can see how borders are created by the textbook, through who the publishers address as a citizen, a hero, or a villain, as well as who is seen at all through completely cutting students out from social and civic awareness through “policing” who is seen and represented in textbook and are regarded as “Canadian” and who are villainized and labelled as “alien.”

1.3 Significance

This project will contribute to the growing field of a/r/tography as a research and pedagogical method that is uniquely situated within the domain of Canadian history education. With a rise in anti-racist mobilizing groups, such as Black Lives Matter, alongside reminders of the ongoing investigations into Missing and Murdered Indigenous Women and Indian Residential School graves, history education needs to reform and shift the paradigm to include recognition and representations of and by racialized and marginalized groups. By doing so, students can then critically analyze and historically contextualize events and past wrongdoings and engage in informed discussion of contemporary issues such as immigration, race and gender politics, identity, and historical documentation. In my experience working and talking with educators, there seems to be an adverse reaction from teachers in terms of technology use in classrooms (Ontario News, 2024). However, multimodal teaching and learning open possibilities for teaching, learning, and engaging with history through experiential, sensory or immersive methods. This project will be relevant to the fields of technology-enhanced learning, critical race studies, research creation methodologies, and educational research, and emphasize the value of utilizing digital tools in history teaching and learning towards justice.

1.4 Overview of the Dissertation

As I navigate this interdisciplinary inquiry, I invite you, the reader, to explore this project. This section provides an overview for each chapter.

This dissertation is divided into eight chapters. *Chapter One*, as you have already read, is an introduction to the project's design, the research questions, situating myself in this project, and the significance of this work in broader contexts. *Chapter Two* is a literature review that provides context regarding how history education has been shaped over the years as well as a historical background into the Komagata Maru, the historical event I use to springboard the rest of the study. I also include a definition and historical overview of augmented reality—a component central to the project—and a/r/tography, the overarching method used in this project. *Chapter Three* provides detailed context for the work through detailing the theoretical frameworks used in the study, alongside approaches to dissemination of the data. This chapter includes archival theory, hauntology, null curriculum theory, memory and memorialization, Critical Race Theory and intersectionality, and creation research theories. This chapter makes up the various lenses used when conducting the study and when creating linkages in the findings sections. *Chapter Four* provides details on the methods and methodologies for the overall study. This project mainly uses a/r/tography as its central framework for visual research. However, this chapter also includes archival research methods where I outline how I conducted archival research in support of this project. In addition, I provide parameters for the overall observational methods which were used when conducting the study with the participants. After, I discuss participatory action research methods, and outline what the participants did in the study. Lastly, I also detail the four surveys, their questions, and their purpose for the findings.

Chapter 5 details the process of creating the archive box. First, I started with my experience researching in the archive, where I navigate various archival artefacts and narrow down which photographs would be used for the archive box. Next, I detail the process of experimenting with augmented reality and combining the historical photographs with digital components of overlay, texts, and video. Lastly, I describe the process of putting together the box. *Chapter 6* details the study conducted with the participants. This includes the ethics and recruitment phases, introducing the participants, engagement with the archive box and app and the workshop. This chapter uses observational field notes and documentation and uses surveys 1-3 which asked about their experience before, during, and after the study. *Chapter 7* details the process of creating and curating an exhibition, the contributions from the participants, the opening receptions where I conducted the last survey on the participants, and the experience from gallery visitors. Finally, *Chapter 8* ends the dissertation with my response to the study, creating the toolkit, addressing barriers, and overall conclusions and findings from the data collection. Finally, I offer potential future directions for the research project.

Chapter 2: Historical Backgrounds and Literature Review

A recent study finds that fewer than one in five Canadians could pass a quiz on Canada's history (Bourdages-Bittle, 2024). Part of this discrepancy is attributed to the reliance on historical amnesia in favour for utopic events centring on Canada's heroism (i.e., peacekeeping missions, Multiculturalism Act, etc.) (Nelson, 2017). Even government officials, like former PM Paul Martin, publicly declared not knowing that Canada was a site of enslavement (Kellner, 2020).

Given this context, in this dissertation I argue for the importance of examining history education in Canada as it supports us to engage with and understand how history has shaped our present-day laws and institutions. When I study history, I am not just looking at the past; I look to behaviours, decisions, and voices from communities, as well as the ways that government shapes our present-day lived experiences based on dominant histories adhered to and other histories erased. This chapter therefore grounds my arts-based intervention into history education by examining some of the historical events that are represented, and elided, in the Canadian history curriculum, and how they haunt the archive as well as the present. Central to the inspiration for my project was my encounter with the archival remnants of the so-called Komagata Maru incident. This chapter charts how this event inspired the research project and then goes on to provide historical background on history education/textbooks, policies that have historically shaped national identity and therefore the construction of history education, and a critique on current curricular guidelines and policies impacting the classroom. I structured this chapter to allow readers to comprehensively understand how historical methods and practices impact our understanding and construction of history.

2.1 The SS Komagata Maru: Canada's immigration failure with bloodshed

In this section, I provide a background overview into the Komagata Maru. This section provides context for the archive box I create in later Chapters as well as why I chose this particular event as the focus for the project as an example for the participants when they engage with the archive box.

The SS Komagata Maru was a chartered ship (carrying over 300 Indian passengers) that challenged Canada's immigration practices in 1914. The immigration laws at the time included a head tax of \$200 and the ship had to make a continuous journey from the port of origin to British Columbia, without stopping for fuel or supplies: an impossibility given the length of the journey from the Asian continent to North America.

When the ship successfully arrived at the Port of Vancouver, its passengers were barred from entry. After a 6-week legal battle with the B.C. Court of Appeal in which the ship's passengers were denied food or supplies, only a few passengers were granted entry, while the rest were deported to India's Kolkata port, Budge Budge, where violence ensued, resulting in 20 passengers being murdered by the British Indian police. The event is regarded by historians as a damning example of Canada's immigration failure that ended in bloodshed (Johnston, 2022).

The Komagata Maru incident had profound impact on immigration policies, including increased restrictions around successful immigration and the treatment of migrants. Shortly after the deportation, Canada tightened its immigration laws as well as established anti-immigrant laws (i.e., the internment camps of Eastern Europeans) during World War I. Currently, even though the Canadian government have progressed to be "tolerant" of immigrants, migrants, and refugees, debates about immigration policies have continued throughout the 20th and 21st centuries. Anti-immigrant sentiments are still prevalent in Canada currently, as is the rise in hate

crimes against People of Colour (POCs) (Kukreja, 2024). The once “welcoming” nation now sees a 44.5% increase in anti-hate crimes, with added immigration policies scaling back on permanent residency allotments (Kukreja, 2024). The cycle of white-supremacist and colonialist thoughts and actions have continued to seep itself into political and politicized institutions.

My creative work has been informed by these moments in the historical archive and works to demonstrate how these sentiments have grown (or in some cases...hidden) in present day rhetoric of multiculturalism and reconciliation. My MFA work informed the ideas for this project, with its focus on the need for South Asian voices and perspectives in history education. The MFA thesis countered the textbook through thirteen artworks to represent the thirteen historical events typically taught in secondary school history classrooms (Prasad, 2020). The MFA left me wondering what the pedagogical potential of AR artmaking and archival research to engage students on critical issues in history might be, and how this kind of work might contribute to the incomplete historical narratives perpetuated in public school contexts. Thus, *Finding Voices* was created to expand on this work through a project that engaged with minoritized and marginalized histories as a dynamic, collaborative catalyst for critical exploration. I chose to focus my initial research on the Komagata Maru, as opposed to undertaking comparative work on two or more historical events as I did for my MFA, in the hopes that, by focusing on one event, I could bring multiple perspectives—government perspectives, passengers’ perspectives, media perspectives—about one event to life via AR technology, rather than offering a superficial retelling of multiple events. Within this research, I accordingly examine power, immigration, race, citizenship, and gendered difference through intensive archival research, using this experience as a prototype for the workshops I would subsequently offer to teacher candidate participants. So, while this project uses one historical

event, this one event highlights multiple perspectives from various spectres (historical figures) and serves as a potential example of ways in which educators can introduce this project to students in the future (i.e., potentially as an Independent Study Unit, which may ask students to consider one or more historical events, as seen through Student A's work in later chapters). A future study, examining to what extent my methods could be applied to a comparative historical framework, or to a transhistorical approach to history teaching, is needed to test the flexibility and impact of my proposed a/r/tographic and historical inquiry toolkit (themes I investigate in more depth in the conclusion).

While this section provides a historical background for the archive box's inspiration, the next section provides context regarding how national policies have shaped and impacted our understanding of history education in Ontario.

2.2 How National Cultural Policies Shaped History Education

This section outlines a historical background on education policies' effects on classrooms. Doing so lays the groundwork for my project by understanding how education has evolved, particularly in the context of historical education. I proceed first with a historical overview of how public-school policy was shaped in Canada from the 19th century onwards to illustrate how the evolution of Canadian public schooling has progressed, and then I provide background information on the Multiculturalism Act of 1988. This section is purely a historical background and is meant to help the reader understand how education has been shaped by external factors, including immigration politics.

2.2.1 Egerton Ryerson's Influence on Education

After Egerton Ryerson was appointed superintendent of education in Canada in 1844, he promoted the ideals and frameworks that would become foundational for establishing Canadian

public schooling (Li, 2015).⁴ The Education Act of 1846 allowed what is now the Ministry of Education to enact policies and put funding in place to oversee the quality of education curricula and its infrastructures (Li, 2015). Originally, his primary motivation for schooling was putting children in schools, after witnessing impoverished children acting like adults (smoking, swearing, etc.). Drawing from his experience teaching, his Methodist upbringing, and his travels abroad, Ryerson advocated for a centralized (but segregated) schooling system aimed at ensuring a standardized form of education in both rural and urban areas (McDonald, 1937). Unfortunately, his policies for schools laid the groundwork for the government to initiate genocidal practices through the Residential Schooling systems (1834-1996), which (similarly to the United States) aimed to “kill the Indian in him , and save the man” through violent erasures and genocidal practices, such as physical and emotional abuse, psychological torture, and other aggressive and subtle forms such as banning cultural and heritage practices including language, clothing, and dance (Pratt, 1892, p. 46). This piece of legislature ultimately allowed for the censorship and erasure of historical events, peoples, and cultures from the curriculum.

2.2.2 The Multiculturalism Act and Curricular Reform

Curricula and their policies within education change depending on the political influences of the time. Before the Multiculturalism Act of 1988, Prime Minister Pierre Trudeau announced in 1971 that multiculturalism would become a part of government policies; a first of its kind for both the country and the world writ large that intended to “preserve the cultural freedom of all individuals and provide recognition of the cultural contributions of diverse ethnic groups to Canadian society” (Department of Canadian Heritage, 2020, p. 10).

⁴ Even though public schooling and Residential Schooling was a first for Canada, this was not an entirely new concept in other countries such as New Zealand and Australia which invoked similar techniques to “subdue” the Indigenous populations. We also see similar situations with segregated schooling in the U.S.

In 1988, the policy became a law called the *Multiculturalism Act*, which mandated the Minister of Diversity and Inclusion and Youth to create programming and practices to support multiculturalism. The original objectives of the *Multiculturalism Act* in the 1997-1998 report included:

[ensuring] that Canadians of all origins have an equal opportunity to obtain employment and advancement in those institutions promote policies, programs and practices that enhance the ability of individuals and communities of all origins to contribute to the continuing evolution of Canada; and promote policies, programs and practices that enhance the understanding of and respect for the diversity of the members of Canadian society. (Department of Canadian Heritage, 2020, p. 7)

The multiculturalism programming implemented by the Government of Canada in 1997-1998 was focused on employment diversity, as many racialized and marginalized citizens were unable to find jobs or advance in their careers, whereas the most current 2019-2020 version of the report focused on cultural integration in the overall multicultural mosaic.

The 2019-2020 report's objectives included:

1. **Retaining and fostering of identity:** Integration, not assimilation, was favoured [by the Ministry] as the best approach to encouraging participation [of immigrants to Canada]. Assistance, whether in terms of funding for food and folklore events, heritage languages for newcomer children, or parliamentary recognition through messages or events (e.g., Black History Month and Asian Heritage Month), were some of the means used to recognize their contributions.
2. **Overcoming barriers to participation:** For integration to be meaningful, barriers (economic, social, cultural, and political) [for immigrants to Canada]

need[ed] to be reduced, if not eventually eliminated, to ensure meaningful equality of opportunity. Ideally, outcomes for all [cultural] groups would be closely comparable in a variety of domains (e.g., employment and income, education, representation in government/private institutions, etc.).

3. **Promoting exchanges:** Exchanges and sharing between individuals and communities was to be encouraged as part of recognizing identities and encouraging participation [in the ‘multicultural mosaic’ reputation].
4. **Language acquisition:** Minority groups were encouraged to learn at least one [of Canada’s two] official languages, French or English (Department of Canadian Heritage, 2020, p. 10).

The Act extended to not only the political sector, but also to other sectors such as tourism, citizenship, business, and education. The goals and ideologies of governmental laws and acts were then translated into the policy practices of public education, including curricula. The process of publishing and distributing new textbooks is a lengthy process, which often means that textbooks lag behind shifts in culture and politics. For example, if the 2018 Ontario Ministry of Education (OME) guidelines for Canadian and World History updated to 2025 policies to reflect current shifts in culture and politics, the textbooks (*Creating Canada: A History - 1914 to the Present*, *Think History: Canadian History Since 1914*, and *History Uncovered: Canadian History Since World War I*) used since the 2013 update would be considered outdated. Textbook publishers would need to work with the Trillium List to streamline new textbooks suitable for the 2025 update. On top of this, school districts would need to set aside funds for schools to be able to purchase these textbooks. Essentially, classrooms will use the outdated textbooks until approved new ones are distributed.

While this section provides context to how provincial and federal policies have impacted the changes to history education, the next section will highlight how history textbooks have evolved over the years.

2.3 The History of History Textbooks

In this section I give a brief history of history textbooks and consider how they represent nationalist Canadian events archiving immigration and belonging. A cursory overview of the history of history textbooks helps to illustrate how national policy shifts were mirrored by the narratives included in history textbooks. By doing so, this section provides an understanding of the benefits as well as the limitations textbooks provide for meaningful critical inquiries in history classrooms.

To reflect Egerton Ryerson's ideas in the 1880s about how children and adolescents should be taught, the Department of Education in Toronto regulated the first public school textbooks as early as the early 1900s (Glassford, 2014). In these initial textbooks, loyalty to the monarchy, European settlement in Canada, and the governmental reign of Prime Ministers Wilfrid Laurier and Robert Borden painted "a glowing future for Canada, but one solidly grounded within the British Empire" (Glassford, 2014). By the 1940s, new textbooks were issued to match the changing tides during this time, such as the rise of Franco-Anglo tensions between Ontario and Quebec in the Canadian military following World War Two, illustrated using prejudicial language, such as calling the Québécois barbaric (Glassford, 2014). However, in spite of these tensions impacting real lived experiences of Canadian life, textbook authors nevertheless reinscribe the fiction of the "two solitudes" in Canada with little attention to the booming rates of immigration after the *Chinese Head Tax* law was lifted in 1947, or the accelerated migration of Black citizens following Civil Rights unrest in the United States in the 1950s and 60s.

By the 1960s, the textbooks brought “attention to the representation of particular social groups and the effects that negative or biased representations might have on the individuals within these social groups” (Montgomery, 2005a, p. 316). After the establishment of the *Multiculturalism Act* in 1988, textbooks depicted various communities’ contributions to the “multicultural mosaic” reputation that the Canadian nation-state began to construct. Present-day textbooks are more critical and use colourful images to attract and engage students in learning; yet despite these aesthetic innovations, Ryerson’s notion of education still echoes in our curriculum, with its goal “to nurture informed democratic citizens with a secure sense of their heritage and identity” (Glassford, 2014).

Textbooks in Ontario are regulated by the Trillium List under Ontario’s Ministry of Education. The Trillium List replaced *Circular 14, 1995* which mandates what teaching materials are allowed to be used in classrooms (Ontario Ministry of Education, 2008, p. 1). Publishers need approval from the Trillium List as well as approval from the Minister of Education in accordance with their curriculum guidelines and policies to publish provincial-wide textbooks (2008, p. 2).⁵ In addition, school principals consult with the Trillium List to establish which textbooks will be used. Textbook eligibility requirements must “be consistent with that in one or more elementary subjects or secondary courses described in Ontario curriculum policy documents, or with that in one or more...learning areas, and must support at least 85% of the expectations” (2008, p. 5). This means 15% of the expectations are not met. Additionally, according to the Ontario Ministry of Education, approved textbooks must be:

⁵ There are many requirements for textbook approval: congruence with curriculum policy, conformity for URL placement, added teacher’s resource guide, must acknowledge Canadian contributions, must my manufactures in Canada, must consider: quality, references to technology, health and safety, environmental responsibility, language level, assessment strategies, and bias-free. Textbooks must conform to the curriculum documents outline by the Ministry of Education (OME, 2008, pp. 5-11).

free from racial, ethnocultural, religious, regional, gender-related, or age-related bias; bias based on disability, sexual orientation, socio-economic background, occupation, political affiliation, or membership in a specific group; and bias by omission. The material should present more than one point of view, and be free from discriminatory, exclusionary, or inappropriately value-laden language, photographs, and illustrations. (Ontario Ministry of Education: Trillium List, 2008, p. 8)

Theoretically, these strict procedures should produce textbooks that allow students to critically engage with all historical events. However, in many textbooks such as the currently used but outdated *History Uncovered Canadian History Since World War I* (Armstrong, et al. 2014), this is not the case. The obfuscation of the resiliency and achievements of racialized and marginalized communities occurs throughout the textbook; a practice that I read as censorship via omission, which has the effect of suppressing and silencing the critiques and voices of these communities. This impacts students by implicitly encouraging them to question whether certain racialized and marginalized group belong in Canada or should be considered Canadian.

Education scholar Alda M. Blakeney (2005) states:

racial and cultural issues experienced by adolescents represent problems posed within context and allow for a very natural flow of praxis, conscientization and transformation of issues surrounding race and culture. Adolescents would address these issues using praxis. Praxis typically results in consciousness raising, which reflects psychological and social development. (Blakeney, 2005, p. 124)

According to the OME's curriculum policies for their Canadian History section, students and educators are expected to engage with historically important events between the years 1914 to Present Day (usually stopping in the early 2000s, if following the textbook). Education

theorists Goli M. Rezai-Rashti and Cameron McCarthy (2008) question the impact that the production of textbooks has on society, particularly for marginalized communities. They state:

[W]ho gets to define whom, when, and how. Who has control over the production of pictures and images in this society? I believe that textbook production is an important dimension of a much broader social and political context in which minorities, women, and the physically and mentally disabled have little control over the process of production of images about themselves. (Rezai-Rashti & McCarthy, 2008, p. 528)

Although racism is mentioned throughout the currently approved secondary school history textbook, the narrative presented to students perpetuates the idea that racism in history is just relegated to the past. Racialized and marginalized groups are not incorporated nor represented as extensively as white Canadians. This includes the dismissal of their achievements through erasures and utilizing tones that would suggest that the Canadian government were “saviours” by massively highlighting white “Canadians” achievements. For example, on page 24 of the 2014 textbook, the editors highlighted the No. 2 Construction Battalion. It starts off with a very brief overview about how non-white citizens were barred from enlisting in World War I. Then it shifts to the creation of the all-Black battalion. While this seemingly brings representation to historic Black communities in Canadian history, this overview is only two pages. The overall chapter does not mention other racialized groups during World War I (i.e., East and South Asians, Indigenous, etc.) who were also key communities during this historical event. Even in highlighting the all-Black battalion, these two pages do not make connections to its impact on wartime regulations and recruitment in present day. The textbook’s content perpetuates the belief that Canada is the ‘saviour’ rather than the perpetrator of systemic racism, as seen by the erasure of the SS Komagata Maru event. Even though it is mandated in the current

elementary education curricular guidelines to include traumatic histories like the Komagata Maru, the silence lies with the classroom and the educators who choose to teach it (Ontario Ministry of Education, 2023). It should be the responsibility of publishing companies and the historians contributing to textbooks to be up to date on the curriculum standards, and be adequately prepared to depict history with accurate forms of representation. In addition, textbooks should also depict the adversities that racialized and marginalized groups have endured and the achievements they have celebrated while also critiquing systemic racism (Castro, 2022). Taking on an ahistorical perspective is not only reckless for racialized and marginalized solidarity but continues the cycle of teaching ignorance and white-centred narratives to students.

This chapter has examined the historical development and regulatory framework of Canadian history textbooks, highlighting how shifting national policies have shaped the narratives these materials promote. While early textbooks emphasized loyalty to the British Empire and largely omitted the experiences of racialized and marginalized groups, more recent efforts (particularly following the *Multiculturalism Act*) have attempted to broaden representation. However, this inclusion often remains superficial or selective, reinforcing a sanitized, white-centric version of Canadian history. Despite the Ministry of Education's guidelines advocating for bias-free, inclusive content, many textbooks continue to omit critical perspectives and contributions of diverse communities. As this chapter has illustrated, such omissions not only distort historical understanding but also impact students' sense of belonging and identity. In the following section, I explore how curricular documents – for which history textbooks are curated – shape classroom practice, before examining the extent to which educators can, and do, challenge dominant narratives through critical pedagogy.

2.4 An Overview on Curriculum Documents for History Education

This section provides an overview of the Ontario Curriculum Guidelines for History/Canadian studies subjects. By doing, I also provide context regarding how my participants interacted with the study through the lens of their respective teaching streams. I limit the scope of this section to stand-alone history curricula documents that are mandatory; this overview excludes history electives and documents labelled “Social Studies,” as social sciences are a mixture of geography, history, and social studies (i.e., sociology), and history electives are not mandatory for students to take past Grade 10. This critique is limited to required content which, following the aforementioned research, establishes dominant historical narratives in Canada.

In Ontario, licensed teachers (accredited through the Ontario College of Teachers) are categorized by teaching divisions (known colloquially as streams) where Primary/Junior (P/J) teachers are qualified to teach Grades K-6 in all subject areas. Junior/Intermediate (J/I) teachers are qualified to teach Grades 4-6 (Junior division) and Grades 7-10 (Intermediate division) in one certified subject area. Intermediate/Senior (I/S) teachers are qualified to teach Grades 7-10 (Intermediate division) and Grades 11-12 (Senior division) in two certified subject areas (Ontario College of Teachers, 2024). Within these grade levels, the Ontario Ministry of Education provides curriculum guidelines for various subject areas and grade levels. Within these curriculum documents, educators are given an overview of the subject area, expectations by strands (often called units/topics), curriculum contexts, and resources. Aside from curricular guidelines, educators are also to implement Program Planning policies which takes into consideration language barriers, (dis)ability, race, gender, STEM, literacy, transferrable skills, culturally relevant pedagogy, and more.

Starting with Grade 7, this curriculum document was revised and published in 2018. In Grade 7, students are expected to “examine social, political, economic, and legal changes in Canada between 1713 and 1850. They will explore the experiences of and challenges facing different groups, including First Nations, Métis, and Inuit communities, in Canada during this period, and will compare them to the experiences of present-day Canadians” (Ontario Ministry of Education, 2023, pg. 244). This curricular document is broken down into two strands (interpreted as units) where students will learn two big topics within this subject. In this case, Grade 7 students learn about *Heritage and Identity: New France and British North America, 1713–1800*, and *1800–1850: Conflict and Challenges*. Within these two strands, students learn about comparing colonial and present-day Canada, migration from New France to British North America, significant events (i.e., treaties), challenges and changes for various community groups from 1713-1850, perspectives in British North America, and the impact of events in the 1800s. In this grade level, students are introduced to the four concepts of historical thinking—historical significance, cause and consequence, continuity and change, historical perspective—which teaches students to think critically about historical events through the method of historical inquiry where it guides students “in their investigations of events, developments, issues, and ideas” (2023, p. 96).

In Grade 8, students learn historical events between 1850 and 1914 where there are two strands: *A) Creating Canada, 1850-1890*; and *B) Creating Canada, 1890-1914: A Changing Society*. Within these two strands, students are expected to understand “the impact of some key social, economic, and political factors, including social, economic, and/or political inequalities, on various groups and communities” (2023, p. 271). This includes learning historical events like the purchase of Rupert’s Land, the creation of the North-West Mounted Police, The Indian Act,

Women's Rights, the creation of the Pacific Railway (CPR), the Numbered Treaties, and the Komagata Maru. The aim of Grade 8 history is to expand on their historical thinking skills and explore the "perspectives of groups on issues of concern to people in Canada" (p. 266).

Lastly, in Grade 10, students take a course labelled "Canadian History Since World War I" and can be streamed into either Applied (CHC2P) or Academic (CHC2D). For the applied stream, students are taught the "social context of historical developments and events and how they have affected the lives of people in Canada" while in the academic stream, students explore the "social, economic, and political developments and events and their impacts on the lives of different individuals, groups, and communities" (2018, pg. 131 and 107). Despite there being two academic streams, the students learn the same strands—Historical Inquiry and Skill Development, 1914-1929, 1929-1945, 1945-1982, and 1982-present—however, students in the academic stream seemingly take on more theoretical approaches to history, while the applied stream take on more of a practical/fact-based approach. For example, In Strand B, students in both streams learn about 1914-1929 during which they learn about the First World War and other concurrent events (i.e., Women's Rights). Within this strand there are three sub-strands—*Social, Economic, and Political Contexts; Communities, Conflict, and Cooperation;* and *Identity, Citizenship, and Heritage*—that focus on specific themes. For instance, strand B3 focuses on *Identity, Citizenship, and Heritage* for that year range. In the Applied stream, students are expected to understand "various individuals and events [that have] had a major impact on the continuing development of Canada" (p. 132) whereas in the Academic stream, students are expected to understand "pre-dominant attitudes towards women, immigrant, First Nations, Métis, Inuit, and racialized groups and communities affected [during] the development of identities and citizenship of Canada" (p. 108). Comparing these two strands, the Academic stream has more of

an expectation for critical thinking skills whereas for the Applied stream, the expectation is more fact-based and diminishes expectations for critical thinking skills. In my experience having been educated in the Ontario system, students and parents perceive (however incorrectly) the two streams as a measure of intelligence (academic = smart; applied = not as smart), rather than (as per its designed function) an institutional sorting mechanism. Currently, some schools have opted to no longer offer Applied courses.

Like the discussion in Chapter 2.3, curricula are used to promote nationalistic ideals and reaffirm the multicultural mosaic that Canada prides itself on (Cutrara, 2020, p. 43). According to curriculum specialist Samantha Cutrara (2020):

In Canada today, there is a disconnect between the vision and enactment of Canadian identity that has been created by official means, by those on the ground, and by those that haunt our past. (2020, p. 43)

These disconnects are due to political motives that have shifted depending on who is in power. For example, the early 2000s Conservative government (Stephen Harper administration) aligned with a surge in commemoration for peacekeeping and military heritage and cuts to history, heritage and cultural institutions like museums (p. 45). This is then reflected in early 2000s education through the history textbooks like *Canada: A Nation Unfolding* (2000) and *History Uncovered: Canadian History Since World War I* (2014). Meanwhile, under the Liberal government (Justin Trudeau administration), some of this rhetoric is reversed, but the effects of this form of Canadian identity continues to linger (p. 45). Suddenly, historical events, like the Komagata Maru, are deemed less important to learn in comparison to the First World War under more conservative orientations towards history.

This sub-chapter has provided a focused overview of the mandatory Ontario History curriculum and the structural frameworks that shape how history is taught across different teaching levels. By narrowing the scope to core, stand-alone history courses, this analysis highlights the pedagogical expectations placed on educators and how curriculum intersects with broader sociopolitical narratives of Canadian identity. This context lays the groundwork for understanding how participants navigated and interpreted these curricular guidelines within their teaching practices, which will be further explored in later chapters. The following section examines how particular approaches to history position notions of belonging and citizenship, followed by an overview of what augmented reality is and how might be utilized within the context of historical narrativization.

2.5 Examining Belonging and Citizenship in History Education

This section outlines belonging and citizenship in history classrooms and textbooks. In so doing, it lays the groundwork for my project by examining how representation has affected students' mindsets on Canadian identity. I proceed first with a description of the primary textbook that my dissertation might be positioned in both opposition and relation to. This helps anchor the project to specific issues within the textbook to provide a tangible example of how belonging operates in education and, alternatively, how it might be addressed in other ways. I then provide a case study from the Ontario Black History Society to demonstrate how history textbooks fail to represent histories and stories of Black Canadians, to illustrate the magnitude of this failure. Lastly, I examine possibilities for how the textbook can be transformed to include more equitable and accurate historical representation via a/r/tographic and augmented methods of historical inquiry.

I borrow from education scholar Christa J. Porter's (2022) definition of belonging as the "ability to connect...through support systems, positive interactions, and mattering" (Porter, 2022, p. 106). Thinking with this complex definition, the education system has done very little to address concerns of belonging for racialized and marginalized communities beyond surface-level, "positive" interactions. Porter calls for "institutional responsibility for cultivating environments that disrupt an outsider-within status and wherein Black women [and other racialized and marginalized communities] matter enough to belong" (Porter, 2022, p. 109). As a diasporic South Asian Pacific Islander, belonging for me means seeing visible and various modes of self-representation in history textbooks and understanding their struggles, achievements, and resiliency. My research creation project uses the concept of belonging as a form of creating and navigating current culturally responsive and relevant policies⁶, curricula, and pedagogy that will foster a sense of representation and visibility for racialized students, while also putting into practice the aims of the Ontario curriculum to:

assess the significance of public acknowledgements and/or commemoration in Canada of past human tragedies and human rights violations, both domestic and international (e.g., the Holocaust; the Holodomor; the Armenian, Rwandan, and Srebrenican genocides; the Chinese head tax; the Komagata Maru incident; Ukrainian- and Japanese-Canadian internment; residential schools; the arrest of Viola Desmond; the demolition of Africville; forced relocation of Inuit families; suicide rates among Indigenous youth." (Ontario Ministry of Education, 2018, p. 128)

This project is directly informed by my experiences as a student in an Ontario history classroom that prominently featured history textbooks in our learning. My dissertation takes the

⁶ Culturally Responsive and Relevant Pedagogy (CRRP) is a framework implemented by the Ontario Ministry of Education to promote inclusive and equitable spaces and pedagogies (Ontario Ministry of Education, 2024).

textbook as the target for overdue change toward creating ‘resisters’ which, according to psychologist Beverly Tatum (2017), are children (or in this case adolescents) who can recognize, identify, and critically think about the impacts of stereotypes and inequities that they are exposed to (Tatum, 2017, pp. 126-127). To become a resister means resisting the “colour-blind” trope that often underpins national narratives of multiculturalism and adopting a sense of social justice advocacy instead. This may include (but is not limited to): historical inquiry practices that connect to contemporary issues (i.e., gender, race, class, etc.), or creative outputs that critically engage with histories taught within the classroom or outside via the archives. Resisting is an understanding of and pushback against the neoliberal mould.

My secondary school history education in 2011-2012 was through my encounter with *Canada: A Nation Unfolding* (2000), the textbook used in my Grade 10 compulsory history class in accordance with the 2005 curriculum guide. The cover of this edition of the textbook is beige with a transparent sepia-coloured flag in the background. Historical images from various archives in Canada, including Library and Archives Canada, the Canadian War Museum, the Department of National Defence, and others, are shown on both the front and back covers. The images depict key events in Canadian history, including the First World War, World War II, The Great Depression, and the so-called Oka Crisis, further supporting the nationalistic propaganda that the Canadian government and various national industries (such as tourism), institutions (such as schools), and Ministries (such as immigration and education) rely on The World Wars to boost Canadian pride.⁷

⁷ During the World Wars, Canada aided in many war expeditions and helped liberate many European cities as part of being in the British Dominion/Commonwealth ally, which furthers the idea (every year on Remembrance Day) that we should be proud and grateful to be living and learning in Canada. Canada also established peacekeeping missions—furthering the sentiment that Canada is a “non-violent” state.

In the current 2018 curricular guideline for Grade 10 history, many history educators have opted to limit their textbook use, due to either the textbook being outdated and not replaced or not meeting the needs for their students, thus turning to external resources to aide in their lesson planning.⁸ However, teacher colleagues have told me anecdotally that some educators use *History Uncovered: Canadian History Since World War I* (2014). The cover of this textbook is a neutral blueish white with the title of the textbook emerging from underneath the graphic of a torn piece of paper. Like the 2000 textbook, the 2014 textbook's chapters are broken up by dates, and within each timeline break are significant historical events. This textbook does not mention the Komagata Maru despite the curriculum guidelines stating that students are to learn specific traumatic histories (i.e., the Komagata Maru). What is interesting about this textbook is that it includes dedicated pages to the Oka Crisis with a complete timeline. However, much of the languaging on those pages is through the nationalistic perspective versus the perspective of the Kanasatake Mohawk. For example, in the timeline, it mentions shots fired between both the police and the Indigenous community, but only an officer is named for casualties. What about the names of the Indigenous peoples who were shot and injured or killed by the Canadian police? Why are their names not given as much importance as that police corporal?

It is ironically laughable that the titles ask the reader (students) to unfold the history of Canada, when much that is folded cannot be unfolded in the classroom. This is seen through nationalistic advertisements and commercials for Remembrance Day, the cultural tradition of buying and understanding the symbolic poppy, and watching war films and documentaries on Canadian participation in these European battles. This over-emphasis in the textbooks on

⁸ According to the Nelson website, the textbook approved for the current Grade 10 curricula is retailed at almost \$50. Multiply this by roughly 30 students and it comes to roughly \$1500 per history classroom. It is no wonder that educators are utilizing outdated textbooks or no textbooks at all if this is the price tag.

Canada's participation in the First and Second World War provides a stark contrast to the lack of attention paid to the so-called Oka 'Crisis' standoff between the Mohawk nation and the federal government: an event in which the media demonized the Mohawk nation to make the white settler government look like saviours rather than settler trespassers. Inside the cover, these tensions continue.

The textbook is dominated with dense text, scattered images, and Chapter Reviews. The remaining pages consist of an Index, Glossary of Terms, Table of Contents, and A Tour of the Textbook. Unsurprisingly, this is not much different from past issued textbooks, where textbooks had been used as political propaganda and as a form of indoctrinating students into embracing nationalistic ideals and 'harmonious' forms of social organization. For example, throughout the 1930s to 1950s, curriculum guidelines had "explicit objectives [in] the fostering of a spirit of national unity and the molding of students as ethical subjects of both the Canadian nation and the British Empire" (Montgomery, 2005b, p. 428; Stanley, 1998). Even when the textbook discusses racism, it "creates and preserves space for normalized knowledges of the nation and national identity that sustain 'white supremacy' as culturally and politically embedded racialized domination" (Montgomery, 2005b, p. 428).

Despite the contemporary tone in the current edition of the textbook (2014), there are still issues within the content of the book, such as omitting historical events like the Komagata Maru and marginalized and racialized voting rights movements, dismissing the violence against minorities that would acknowledge the government's abuse of power, and how gender, race and class relations affect the history of Canada. For example, across multiple pages, the textbook depicts the courageousness of white soldiers during the war efforts, while at the same time

reducing to a paragraph the complexity and mistreatment of citizens of Eastern European (WWI) and Japanese (WWII) descent who were held in Canadian internment camps.

Given the harms perpetuated by hegemonic, singular historical narratives, reparative education allows for multiple perspectives to “acknowledge and repair past injustices and open possibilities for futures that build justice and sustainable peace” (Manning et al., 2024, pg. 3). Through “reparative remembering”; the practice of “the recovery of historical narratives and perspectives that have been systematically silenced, elided, denied and/or disregarded in dominant historiographies and in history education,” history opens to future possibilities and histories that can create curiosities and dynamic forms of engagement from students.

The Ontario Black History Society (2020) highlights some of their concerns with this edition of the textbook with the release of their powerful video titled *Blacked Out History* (2020), providing a strong example of the tension of narrow historical representation against contemporary needs. In this example of visual activism and public pedagogy, a reader has blacked out any content that does not relate to Black History in the Grade 6 mandated textbook with a marker. What is left legible is only 13 pages, amongst the 255 pages, that are dedicated to Black History and Black achievements; this is a visual demonstration of the disregard of Black excellence throughout history, as well as nuanced histories of social struggle that model forms of social transformations that also go unnoticed in dominant narratives. This is an example of the subtle erasures of Black subjectivity that occur through schooling. This method of redaction echoes literature scholar Christina Sharpe’s (2016) theory of redaction as a strategy of Black resistance and “wake work.” Sharpe’s definition of wake work includes turning “away from existing disciplinary solutions to blackness’s ongoing abjection that extend the dysgraphia of the wake” (Sharpe, 2016, pg. 33). To be in the wake requires the “plotting, mapping, and collecting

the archives of everyday Black immanent and imminent death,” and tracking of “the ways we resist, rupture, and disrupt that immanence and imminence aesthetically and materially” (pg. 13). In other words, understanding the ongoing systems of oppressions post-slavery. The redactions in the textbook are a powerful, symbolic gesture that Black bodies are victims of violent acts of erasures. This intervention through the format of a YouTube video brought a startling awareness to viewers of how knowledge is politicized and how these preferences and omissions seep into institutional and systemic racism.

After looking at the copy of the textbook that I used as a student, I noticed a similar pattern in coverage of Asian and Black histories. For example, in the WWI unit titled *Canada and the Great War*, under Chapter 7: *Mobilizing for the War*, roughly a page and a half are dedicated to racialized people’s contributions to the War. While elsewhere in that same chapter, the book acknowledges racism during this time, the establishment of the No.2 Construction Battalion, and briefly addresses Indigenous efforts, it fails to mention the achievements of racialized soldiers and the many ways that they were able to enlist despite racial opposition. In both textbooks, there is also no mention of the SS Komagata Maru crisis of 1914 that challenged discriminatory immigration laws, such as the Chinese Head Tax, and the law of continuous journey within the British Empire (Mawani, 2018; Cho, 2021). More recent historical events concerning Indigenous resistance, such as the so-called Oka Crisis (1990), is reduced to a paragraph that depicts the Mohawk community as “militant” (Gini-Newman et al., 2000, p. 385). Many Indigenous communities do not call this historical event the ‘Oka Crisis,’ but rather they call it the ‘Kanesatake Resistance’ because this event was not a crisis, but rather Indigenous people resisting and protecting their land from brute violence perpetuated by the government and capitalism.

The textbook also lacks meaningful visual representation of racialized and marginalized subjects. Other than the few images depicting racialized soldiers, most of the illustrations depict white Canadians in candid or staged photographs. This further perpetuates racist ideologies of who may be considered “Canadian” and shows a historical approach to erasures via what I call “archival curation,”⁹ where textbook editors select which historical subjects “matter” in the telling of Canadian history through curated archival photographs. At the same time, curating the archive erases, through de-selection, those “minor” subjects who are not shown (Hartman, 2020). Feminist theorist Tina M. Campt calls minor subjects “spectral figures” who are often hidden in the negatives that are not developed into official national view unless they are coaxed and manipulated into visibility by the archival researcher (Campt, 2012, p. 122). At the same time, these spectral figures are also subjected to racial profiling if they are not the people the researcher or textbook editor are looking for (Campt, 2012, p. 124). For example, when reproducing archival photographs of Canadian soldiers for the First World War, only one photograph of a soldier from the Indigenous Battalion was depicted in the textbook, while white soldiers are thoroughly shown throughout the chapter. French philosopher Michel Foucault (2003) describes the function of “knowledge apparatuses... [that are] formed, organized, and put into circulation” as a method employed by governmental ministries to further influence its citizens to aspire to the ideal version of the nation (Foucault, 2003, p. 33). In the Canadian context, textbooks operate as part of a knowledge apparatus, reproducing and creating idealizations of the nation that are seen through photographs, and engendering a sense of patriotism and unity through depictions of military efforts. Throughout history, who was

⁹ Archival curation is a term I use. In my experience working in art vaults and assisting in curating an exhibition, there is a level of curation that happen in an archival level. Archival curation is exactly how it sounds, curating an archive for a set purpose. We see this with museums like the ROM who may only display certain artefacts for their Ancient Civilization exhibitions.

considered “Canadian” changed depending on the political exigencies of the time. For example, Eastern European Canadians and Japanese Canadians were not considered to be Canadians during both World Wars and instead were treated as enemy aliens and put under constant surveillance, had their land expropriated, and were deported to internment camps—a state of exception (Roy, 2020).

Meanwhile, the Indigenous, Inuit and Métis peoples continue to fight for basic rights while continuing to undergo unresolved violence through dispossession and colonial genocide. Sociologist Sunera Thobani (2007) questions whether “citizenship based on the destruction of Native peoples [can] ever be expanded without deepening this colonial relation” (Thobani, 2007, p. 95). She argues that the concept of who is considered Canadian or what a “Canadian” is, are constantly reconstructed through the process of *exaltation* whereby the state ascribes value to the characteristics of a Canadian, thereby, “seduc[ing] subjects into reproducing their nationality” via rights, entitlements, and privilege (Thobani, 2007, p. 7). In the education context, this means that representation will be silenced in favour of a more colonial narrative. Meanwhile, the *Truth and Reconciliation Commission* calls upon the government to “Make age-appropriate curriculum on residential schools, Treaties, and Aboriginal peoples’ historical and contemporary contributions to Canada a mandatory education requirement for Kindergarten to Grade Twelve students” (Truth and Reconciliation Commission of Canada, 2015, pg. 7). While in official curriculum documents Indigenous history is included, according to some of my participants in later chapters, Indigenous history, particularly the history of Residential Schooling Systems, is either glossed over or simply not taught. I posit that if history classroom engagement changed their language and outlook to include racialized and marginalized voices, and not shy away from violent words that authentically capture what happened (such as “genocide”), educators can

create a classroom filled with resisters (Tatum, 1997), while also allowing students to understand the everchanging ideologies of how the ideal “Canadian” is constructed.

2.5.1 Complicating Belonging

Post-colonial scholar Michael Rothberg (2014) defines *multidirectional memory* as a way to “conceptualiz[e] what happens when different histories of extreme violence confront each other in the public sphere” (Rothberg, 2014, p. 176). Weaving in multiple histories can allow for dynamics of remembrance to occur which “creates possibilities for unexpected forms of solidarity” (Rothberg, 2014, p. 176). Nishnaabeg scholar Leanne Betasamosake Simpson (2017) also describes this as *constellations* which create relationships with other constellations (communities, thinkers, makers, activists) to “form flight paths [modes of resistance, activism, liberation] out of settler colonial realities” (Simpson, 2017, p. 217). As one example of how this might take shape in secondary school education, what might happen if classrooms taught World War II through a multidirectional memory lens? I posit that multiple perspectives within Canadian history might form these constellations that could engage students in understanding social justice issues such as antisemitism, slavery, gender rights, and more, with a deeper nuance and appreciation for the complexity of historical and contemporary memory and experience.

In the absence of multidirectional memory and other non-linear orientations towards history, the language used when discussing traumatic events also further silences plural voices by undermining the severity and importance of these events *as* history. For example, the introductory pages of the textbook acknowledge that:

During the first half of the twentieth century the hard treatment of Aboriginal peoples in Canada reached extremes...Once released from the residential schools they faced a life of poverty on the reserves, which offered little opportunity for them to either succeed in

Canadian society or remain connected to their heritage. Some progress was made in the final decades of the twentieth century towards recognizing the place of Aboriginal peoples in Canada's past, present, and future. (Gini-Newman et al., p. 7)

This language in the textbook shifts the blame from the government, institutions, and policies to an abstract agent of history, suggesting that settler colonial violence “all happened in the past,” that “it was a different time,” or that “the past is the past.” Furthermore, when the present is mentioned throughout the textbook, the writers actively choose not to criticize the government and state institutions like schools as perpetrators of systemic racism.

Many people living in Canada therefore believe that racism exists only in the past but is no longer prevalent in Canada today. Canadian activist Desmond Cole (2020) remarks:

This idea that Canada's racial injustices are not as bad as they could be [comparing to the U.S.], this notion of Slavery Lite, of Racism Lite, of what my friend calls the “toy version of racism” is a very Canadian way of saying: remember what we could do to you if we wanted to. Passive-aggressive racism is central to Canada's national mythology and identity. (Cole, 2020)

This furthers the nationalistic rhetoric of the *Multiculturalism Act* of 1988 that insists Canada: “recognizes the diversity of Canadians as regards race, national or ethnic origin, colour and religion as a fundamental characteristic of Canadian society and is committed to a policy of multiculturalism designed to preserve and enhance the multicultural heritage of Canadians while working to achieve the equality of all Canadians in the economic, social, cultural and political life of Canada” (Government of Canada, 2024) when racism, discrimination and oppression are still common throughout the nation. Some recent examples include rampant Islamophobia in Quebec through Bill 21 (Rukavina, 2019), which bans religious garments in the civil sector such

as the hijab; the ongoing cases of Missing and Murdered Indigenous Women who are not considered a cause for police concern in British Columbia; and constant police brutality against Black women and men in distress in Toronto.

Even through this cursory overview, it becomes clear that this history textbook fails to reflect the experiences of most learners' ancestors in Ontario and strategically omits important narratives of racialized and Indigenous communities in Canada. As Ken Montgomery (2005a; 2005b) and Peter Seixas and Carla Peck (2004) argue, significant revisions to the curriculum are needed to include voices and groups that have thus far been excluded. The curriculum needs to allow for a deeper and multi-perspectival curriculum that intertwines historical inquiry skills with making. Historical narratives will then allow students to critically engage with and analyze past, present, and future social justice, alongside addressing equity issues that they will face as citizens.

As noted earlier in this chapter, textbooks are regulated by the *Trillium List*; an online living document which lists all the approved textbooks that schools can choose and implement in their classrooms. This temporal decision coincides with how textbooks are a product of political influence in our education systems, but are also responsive to political constructions of belonging. The 2000 edition of the textbook coincides with a provincial conservative party in majority power at the time, which is why nationalism is heavily portrayed in this textbook as well as decisions that mitigate or rationalize settler-colonial violence (through "official" apologetics) and accompanying notions of what it means to be a "Canadian."

My dissertation project, *Finding Voices*, considers how belonging can be seen in history classrooms through tactile engagement with objects from Canada's past. In addition, my project critiques the longstanding history of how textbooks are curated to invoke a sense of nationalistic

pride, while also implying who counts as a Canadian and who does not. In later chapters, I call for an intervention for history classrooms. It is 2025, and more work is needed to address the lack of belonging and multiple perspectives within Canadian history. In the final section of this chapter, I will therefore offer an overview of augmented reality, which my project centres as one such opportunity to expand what “counts” within history education.

2.6 What is Augmented Reality? Definition and History

If you have ever posted on Snapchat, Instagram, Facebook, Zoom, etc., chances are you may have used filters. Vomiting rainbows, dog ears, and beauty blurs are common augmented reality forms used on app-based platforms. Augmented reality is a type of virtual experience where one uses a camera-based device (typically smart phones and tablets) to alter one’s reality through digital distortions (e.g., overlays, stretch, blur). In education, often augmented reality is used as tool to provide additional context alongside the educator’s main teaching points. For example, an arts educator may talk about impressionist-style paintings and ask students to go to the Art Gallery of Ontario and utilize their AR-guided tours to understand the contexts behind impressionist-style portraits.

Augmented reality was first introduced by cinematographer Morton Heilig in 1957. He invented the Sensorama which delivered visuals, sounds, vibrations and smells to the viewer (Interaction Design Foundation, 2021). In 1968, American computer scientist and early Internet influence Ivan Sutherland created the first-ever computerized AR with a headset. In 1990, Thomas P. Caudell coined the term “augmented reality.”

There are different types of extended realities—augmented reality, virtual reality, and mixed/extended reality. As mentioned before, augmented reality (AR) overlays digital components to alter a trigger. This is typically through a phone or tablet-based device’s point and

shoot built-in camera. Common AR works are in the form of filters used in social media. Virtual reality (VR) is an immersive form of digital reality and is commonly experienced through an oculus headset. Mixed reality (MR) or Extended Reality (XR) is a blend between AR and VR where digital components can be interacted with together. Common MR/XR works can be seen through module-based simulations.

Finding Voices uses website-based AR as the medium for this project. Website-based AR uses a website as the platform rather than using a third-party app. This format allows anyone to access the AR experience through a QR code without having to worry about downloading an app and taking up phone and tablet storage. In Chapter 3, I examine further how augmented reality is utilized in practice. In Chapter 5, I describe the process of attempting to make an app and later switching to an open-source platform to create the AR works for the archive box experience. For this project, it is imperative that the making process uses little to no coding, is therefore user-friendly and is open source, to ensure the focus remains the multi-perspectival affordances of this kind of technology in history education.

2.7 Concluding Thoughts

This chapter has examined the institutional, ideological, and historical frameworks that have shaped the construction of history education in Ontario. Through a critical review of education policies, textbooks, and curriculum guidelines, I have traced how Canadian history has been curated in ways that support nationalistic narratives of unity, peacekeeping, and multicultural harmony—narratives that routinely obscure colonial violence, systemic racism, and the lived experiences of racialized and marginalized communities. Drawing attention to how exclusion operates both through curriculum content and pedagogical practice, this literature review makes visible the omissions and silences that persist in the national story, especially

around events like the Komagata Maru and the broader contributions and resistances of racialized communities in Canada's past.

At the core of this analysis is the recognition that the materials through which history is taught—particularly textbooks—operate as powerful knowledge apparatuses (Foucault, 2003), shaping public memory, citizenship, and belonging. As the literature reveals, despite updates to curriculum policy and efforts toward inclusivity, the dominant frameworks of white settler nationalism and cultural exceptionalism continue to inform the stories students encounter in school. Textbooks and curricular documents remain sites of exclusion, wherein minoritized communities are often represented minimally, stereotypically, or not at all. Even when historical injustices are acknowledged, they are frequently framed through narratives of resolution, reconciliation, or exceptionalism that diminish the structural nature of oppression. This, in turn, shapes how students come to understand their own place—and the place of others—within the Canadian nation.

These critiques provide the necessary grounding for the central aim of this dissertation: to offer an arts-based pedagogical intervention that reimagines how students and educators can engage with Canadian history. Building on the critical insights from theorists such as Porter (2022), Simpson (2017), Rothberg (2014), and Sharpe (2016), this dissertation proposes an a/r/tographic approach to history education—one that foregrounds marginalized voices, invites critical and creative inquiry, and makes space for historical hauntings and future-oriented thinking. The archive box and augmented reality experience developed through *Finding Voices* directly responds to the absences identified in this chapter by offering a method of engagement that is tactile, speculative, and grounded in ethical listening. It models how students

and educators might resist the limitations of state-sanctioned materials and instead generate counter-narratives and critical inquiries rooted in care, curiosity, and social responsibility.

In short, this chapter provides the historical, curricular, and theoretical context that animates the dissertation's research questions and creative praxis. The limitations of history education in Canada—its erasures, omissions, and politicized constructions—are not only the problem this project seeks to address but also the conditions that necessitate new forms of engagement. The next chapter introduces the constellation of frameworks that guide this intervention, offering a methodological and theoretical map for how the project proceeds through research-creation, multimodal pedagogy, and anti-colonial archival practices.

Chapter 3: A Constellation of Theoretical Frameworks

In my project, I conceptualize theory as a set of guiding philosophies, which help to position not only myself, but the broader objects of my research practice. This section is influenced by critical race theory (Zeus Leonardo), anti-colonial archival research (Diana Taylor), hauntology (Avery Gordon and Eve Tuck), the construction of social/people's history (Manning, Paulson, and Keo, 2024), and maker pedagogy (Cipolla, 2019). These frameworks examine the ways in which history classrooms can become a critical site for a/r/tographical and historical inquiry.

3.1 An Intervention for History Classrooms

This section outlines how educators can intervene in history classrooms to work towards historically accurate teaching and modes of student inquiry that encompasses the histories of racialized and marginalized Canadians. In so doing, it helps lay the groundwork for my project by proposing a case for social transformation. I proceed first with utilizing critical race theory (CRT) as a basis for this framework. Critical race theory encompasses a variety of different theories; therefore, by introducing critical race theory, I can utilize other theories such as intersectionality (Crenshaw, 2016) and maker pedagogy (Cipolla, 2019) to create webs or constellations that appeal to students and educators as linkages between history and current issues/lived experiences (Leonardo, 2013). Throughout this section, I provide imagined ways that CRT can be utilized in pedagogy alongside how CRT might deepen understanding regarding how historical narratives are constructed. Further, I outline how CRT can enable students to do critical historical work that supports active questioning of texts and curriculum as proponents of particular perspectives and ideological narratives.

Sociologists Michael Omi and Howard Winant (1994) speak to the importance of a multidimensional approach to history by acknowledging the “importance of historical context and contingency in the framing of racial categories and the social construction of racially defined experiences” (Omi and Winant, 1994, p. 7). Drawing from a multidimensional approach, critical race theorist Zeus Leonardo (2013) advocates for intervening in the continuance of racist ideologies and structures through curriculum and subsequently discusses the need for CRT in education. CRT aligns with the Ontario Ministry of Education’s curriculum mandates and objectives in challenging Canada’s colonialist-settler legacy/position in the world (Ontario Ministry of Education [OME], 2018, p. 12). For example, when discussing the Women’s Rights movement in Canada, CRT can address that the movement benefitted only white women during that moment in history by framing who is considered a “person.” CRT can also explain that while this movement benefitted white women, it also provided a springboard for voting rights for marginalized and racialized communities in later years after the enfranchisement of women’s rights. Leonardo frames CRT and education in the form of multidimensional theory, which can make space for racial ambivalence—allowing contradictions, similarities, and mixed feelings for educators, students, and researchers to emerge—by drawing from different theorists and theoretical frameworks such as cultural studies (Adorno, 1991), intersectional law studies (Crenshaw, 1991), and feminist theory (hooks, 1984) (Leonardo, 2013, p. 10). By identifying contradictions and similarities, educators can create linkages between social justice issues in the present and racist violence in the past and present, with the goal of mobilizing students towards an inquiry-based education driven by critical curiosities.

Another form of linkage can be found in legal scholar Kimberlé Crenshaw’s groundbreaking notion of *intersectionality* (2016; 1991). The interconnection of race, class, gender,

sexuality, religion, dis/ability, and ethnicity in determining how people are differentially subject to power addresses the “rhetorical failures [and] political failures in feminism and anti-racism” (Crenshaw, 2016, 2:00-2:12) and allows us to gain a better and broader understanding of systemic oppressions and privileges. It also opens possibilities for richer and more complex solidarities that lead to wider connectivities between communities and identities.

Intersectionality is a particularly important tool in producing and evaluating textbook content in public schools. Intersectionality, in an education context, provides students with a complex way to think about history as socially inflected as well as factually determined. Students need to be aware that historical adversities and violence against marginalized and racialized communities is an ongoing cycle that continues into the present day. Implementing an intersectional approach as a learning outcome in history curricula can help educators think through the trajectory of multiple themes throughout history, rather than solely focusing on individual dates.

For example, instead of presenting a bird’s-eye-view of the First World War, such as individual war efforts, turning to a framework of intersectionality can support educators in teaching and discussing with students how 1914 and subsequent events affected everyday subjects and their experiences of race, gender, sexuality, culture, and class. Through this framework, educators can provide a richer understanding of the historical events of WWI through intersectional perspectives, such as women’s efforts during the war and how their status as “recognized persons” fluctuated politically during and after war efforts, co-determined by economic, social, and gendered (patriarchal) variables. Other perspectives could also include the changes in recruitment policies to ban and later allow racialized communities to enlist in the army, or the detainment of Eastern Europeans in Canadian internment camps. These intersectional perspectives provide an understanding of these themes and concepts and allow

students to see how other forms of marginalization and control operate in the present. By creating multiple and varying perspectives within history, history teachers can then help students challenge linear views of history and textbook narratives of ineluctable progress that ratify dominant social orders and values. For students, this transformation of the classroom can allow them to fully see and articulate how history should be viewed and understood through reoccurring patterns and cycles, thereby encouraging them to become socially and civically active in preventing them in the present and future.

Alongside intersectionality, Giroux (2003) argues for critical pedagogy as a means of teaching history. He finds that there is a “paralyzing assumption [on the part of the public] that schools were neither sites of conflict nor institutions that could link learning to social change” (Giroux, 2003, p. 6). In turn, these assumptions affect students and educators, causing them to lose their “capacities to become critical agents” (Giroux, 2003, p. 6) as they resist directly critiquing the very institutions in which they are enmeshed. For example, this is especially true for one of my participants, who was not taught about the Holocaust or Residential Schooling Systems and did not understand the nuances of genocide and resiliencies for both historical groups. Black feminist scholar bell hooks (1996)—who was influenced by Paulo Freire, one of the originators of critical pedagogy—posits that in order to save our curriculum from patriarchal and white supremacist systems of power, we as educators must “repress the father’s words and be born again in the memory of the mother’s body” (hooks, 1996, p. 81) through the *ontological gaze* wherein “complex critical investigation of the bonds between [B]lack people [and to larger extent other POCs] are deemed not only worthy of study but necessary to any full reading of our psyches and histories” (hooks, 1996, p. 85). By critically engaging racialized and marginalized representation in history classrooms, educators can create a truly anti-racist classroom, to

“counteract the persistence and impact of racism using praxis as its focus to promote social justice for the creation of a democratic society in every respect” (Blakeney, 2005, p. 119).

This section has laid the theoretical and pedagogical groundwork for reimagining history education as a transformative practice grounded in CRT, intersectionality, and critical pedagogy. By challenging dominant narratives and centering the experiences of racialized and marginalized communities, educators can disrupt the linear, progress-oriented frameworks that often dominate textbook-driven history education. Through the application of CRT and intersectional analysis, history classrooms can become spaces of inquiry where students examine how power, identity, and oppression are constructed and contested over time, *and* how they continue to exist within institutionalized systems of control that must be critically engaged with in the present.

Accordingly, these frameworks not only provide tools for more accurate and inclusive historical understanding but also invite students to make meaningful connections between past injustices and present social issues. As a method, *at*ography encourages students to rethink historical inquiry as an alternative pedagogical framework. Engaging students with the ability to think critically about historical narratives is not just an academic goal but, rather, it is a necessary step toward cultivating active, socially conscious citizens, capable of envisioning and enacting a more equitable future and fostering investigative skills (critical inquiry and visual literacy skills) that are necessary for the 21st Century (Ontario Ministry of Education, 2023 & 2018). The following section will build on this foundation by exploring how archival research frameworks can be utilized pedagogically.

Alongside the tenets of CRT and critical pedagogy, the following section outlines the theoretical frameworks I bring to my archival research. In so doing, it helps lay the groundwork for my project by examining what it means to be in the archive, look through an archive, and be

presented with (hi)stories from the archive.¹⁰ I proceed first with a definition of the archive in relation to earlier commentary on spectres. This is done so that the reader can follow connections between spectres in historical events versus in archives where history is housed. This framework provides context for the archival research undertaken for the project and a discussion of how archival research skills can support a/r/togographical inquiry for educators and students.

3.2 The Archive is Alive!

It's alive! The archives are alive! If you listen very closely, you will hear the faint whispers. You will feel the overwhelming emotions. You may even be confronted by the very ghosts that our government administration has worked so hard to suppress. You cannot suppress the ghosts and spectres of the wronged. They will seep into the corners, "to see the coordinates of the familiar change from underneath and overhead, to trouble the real into a space that momentarily houses ghosts and into a time and place that is unexplainably urgent" (Tuck and Ree, 2013, p. 647). Be scared...but also remain curious. The archive holds many secrets that may anger, sadden, or warm you. The spectres and ghost want you to listen, really listen, to their (hi)stories.

As the above narrative suggests, the archives contain ghosts that haunt, that beckon, and that demand to be heard. Thus, part of this work also involved inviting my participants into these spectral dialogues. One of my participants did not know what to research for their history inquiry project and decided to pick a historical event that was not typically taught in history curricula. They chose a particular event within a historical pocket that piqued her curiosity, drawn by the

¹⁰ I use this term (hi)story as a form of word play; one is the traditional concept of history that puts emphasis on dates, names, and locations. This version of history has the potential to limit the viewer from seeing ghosts, spectres, and hauntings. (Hi)story, on the other hand, includes stories, understanding how stories work rhetorically, and enabling people to contact lost or nullified (after)images/artefacts, where unexpected/jarring presences activate some kind of interaction that in turn enables some kind of 'story' to lead to further inquiry.

storytelling by people who took part in the event. This pique in curiosity echoes Tuck and Ree's notion of the spectre who makes themselves known when they want to by seeping into our line of vision. By listening, the listener opens themselves to inquire further and make additional connections to contemporary social issues.

The archive holds evidence of ethics, human rights, trauma, resilience, and erasure. This evidence provokes questions about what the archive truly holds and what it can contribute to racialized and marginalized representation in history classrooms. Tangible objects produce tangible histories—this is the importance of the evocative object for Turkle, and for artists, sociologists, and educators who seek to narrate material histories in the present (Turkle, 2007). They are meant to be explored, to be understood. Bringing archives into the classroom (or bringing the students into the archives) can allow more significant and complex issues to be discussed between students and the dialogical educator, which can combat what anthropologist and historian Ann Laura Stoler (2016) describes as the *colonial presence*, which “connects the colonial past to ‘postcolonial’ presents [that] are self-evident and unproblematically identified and accessed” (p. 4). History textbooks are one example of how colonial presences are being displayed, and dominant narratives reproduced and made self-evident. Both *Canada: A Nation Unfolding* (2000) and *History Uncovered: Canadian History Since World War I* (2014) showcase a variety of archival images ranging from the 1900s to early 2000s. For example, in the First World War section, many of the photographs depicted showcase Canadian soldiers dressed in their uniforms or in trenches. The colonial presence—which has seeped into the textbooks—overshadows the accomplishments of racialized and marginalized communities. They are not shown, except for one or two photographs that depict them in uniform, positioned almost like a class composite. The curation of archival photographs being presented in mandated history

textbooks is what feminist and cultural studies theorist Marianne Hirsch (2008) describes as *postmemory*. Postmemory describes the act of transferring cultural memory, often traumatic memories, from one generation to the other (p. 103). Hirsch's recent scholarship (alongside historian Leo Spitzer) on photography and postmemory builds on the transference of cultural memory through "connective history" which considers photographs as agents of reproduction or transformation (Hirsch & Spitzer, 2020, p. 17). Photographs, according to the authors, are not static, but rather "liquid," in the sense that through the *retrospective gaze* (p. 13), the viewer (researchers, educators, and students) can seek and develop multi-narrative perspectives to a specific historical event. For example, the description that accompanies a photograph of the No. 2 Construction Battalion (an all-Black battalion) in the Canada textbook reads:

The No. 2 Construction Battalion was an entirely all Black Canadian battalion of volunteers from across Canada. What does the existence of a segregated battalion say about racial tolerance in Canada during the first few decades of the twentieth century? (Gini-Newman et. al, 2000, p. 89)

This class composite-like photograph does not depict the fight that Black Canadians endured to even have the right to enlist but rather shows a level of tokenism that the history textbook often employs. The intended message that I perceive while viewing these archival photographs is *'I know Canada did bad things but...look! There was an all-Black battalion! Surely Canada changed!'* What the carefully curated archive failed to mention and depict is that these soldiers were initially barred from enlisting. The colonial presence of the military—and other colonial institutions---caused "[e]rasure[s] and defacement[s] [to] concoct ghosts" who either fade into nothingness or aim to make themselves known by opening people's eyes to continual violence and oppressions perpetuated by said institutions (Tuck & Ree, 2013, p. 643).

These curated images are situated within a visual-literary context that tries to contain and resolve an otherwise problematic narrative. Other ways that colonialism has shown its presence is through *occlusions* in the form of hiding, concealment, and blockages (Stoler, p. 10). The colonial archive and how it presents itself/history is a generative example of Canadian history curated *for* the public. This project is not about finding “truth” or finding and/or creating assessments on historical accuracies; rather, this project offers an opening up of new spaces and counter-narratives that complicate dominant or single narratives in Canadian history. The textbook captions frame racism and systemic oppressions as securely located in the past, rather than as a continuous and iterative system of oppression with ramifications for the present.

Marginalized and racialized historical figures, activists, fighters, and scholars must be remembered. This project and dissertation utilize archival research methods and a/r/tographic methodological frameworks to reintroduce these voices to students and teachers. Stoler’s methodology for her book, *Duress: Imperial Durabilities in our Times* (2016), includes writing “histories that yield neither to too smooth continuities nor too abrupt epochal breaks” (p. 6) through the methodological insights of genealogy. Borrowing from Foucault (1977), Stoler describes the use of genealogy in the writing of colonial history as emphasizing:

messy, bellicose beginnings rather than originary moments for beginnings that seem to be remarked and effaced over and again...As a method, it insists on more than a refusal to search for distilled origins. It attends to differential histories...as the products and productive potentials that emerge from tracking unrealized possibilities, arrested and failed experiments that commonly remain unmarked as “proper” historical events... (p. 23)

Alternatively, curriculum scholar Bill Bigelow and historian Howard Zinn (2008) introduce an alternative to engaging with history through his 1980s concept, the *People's History*, and later the *People's Pedagogy*, wherein it is proposed that history is seen as a series of junctures that open to fractures or cacophonies (Bigelow & Zinn, 2008, pg. 3). Turning towards the lives of ordinary people (often tokenized racial communities, workers, and women), suddenly the actions (collective or individual) matter in premising the shaping of society (pg. 4). These frameworks allow me to refuse the traditional forms of displaying national history by choosing photographs and objects that intervene in received national knowledge.

In this way, *Finding Voices* treats ephemeral documents, usually relegated to the margins of colonial history writing, as important forms of evidence. In his 1996 essay, Cuban American queer theorist José E. Muñoz (1996) introduces the concept of the ephemera as a form of evidence. Ephemera, he writes, is:

linked to alternate modes of textuality and narrativity like memory and performance: it is all of those things that remain after a performance, a kind of evidence of what has transpired but certainly not the thing itself. (Muñoz, 1996, p. 10)

He argues for “traces, glimmers, residues, and specks” as a mode of “proofing” of everyday (marginalized) people and their agency and modes of self-representation (1996, p. 10). Similarly, my project turns to the work of queer studies theorist Ann Cvetkovich (2003), who examines the traces of the lived realities of LGBTQ+ communities through evocative objects and community-created archives. Cvetkovich understands that witnessing trauma is foundational for the emergence of queer public cultures or “for creating counterpublic spheres rather than evacuating them” (Cvetkovich, 2023, p. 15). My project takes up Muñoz and Cvetkovich’s call to “queer” the archive not through the content of the archival objects I have chosen to work with, but by

“queering” the linearity of public history through historical inquiry with archival objects. Importantly, Cvetkovich posits in her research that an “archive of feelings” is not meant to heal or cure traumas. Rather, trauma, oral histories, and queering histories create fissures that can then be a resource for new cultures to emerge (p. 122).

Numerous artist projects since the 2000s have offered models for how this queering of historical narratives might take place via archival research. A notable example is “Archive Fever: Uses of the Document in Contemporary Art,” curated by Okwui Enwezor in 2008: an exhibition that featured 26 artists whose work appropriates, interprets, reconfigures, and interrogates the archive-as-system (Enwezor, 2008, p. 11-12). Focusing on photography as medium, Enwezor’s exhibition “question[ed] the assumption that the photographic archive is a collection of ‘objective’ documents and suggest[ed] how they shape our consciousness and function as tools of power” (p. 7). Artists such as Stan Douglas, Walid Raad, Christian Boltanski, and Vivian Sundaram engaged with digital media, as well as analogue technologies, to explore new forms of archival representation through their interpretations and reconstructions of the nuances of the archives.

Like Cvetkovich’s method, and the strategies of the artists in “Archive Fever,” the *Finding Voices* project is not meant to “fix” history, nor history classrooms, but rather offer one of many possible tools for visual representation, through archival research, that can be presented to students in classrooms. The textbook’s role in this case contains traces of evocative objects through the editors’ selection of photographs from archival documents. My dissertation offers a toolkit that presents a different way to engage with history that does not necessarily involve standardized testing as an assessment of engagement or knowledge acquisition. Rather, the toolkit focuses on engaging historical thinking/inquiry in students by activating their curiosity

and capacity for creation. The project offers a way to expand the textbook's traces of evocative objects through the process of postmemory and a/r/tography methods. Given this context, the following sub-section focuses on the concepts of memory and memorialization in history education.

3.3 Memory and Resisting Colonial Memorialization

This section outlines the concepts of memory and memorialization in textbooks as they are represented in history classrooms, outlining alternatives to remembering history. I begin with an overview of memory and memorialization, so that that the reader understands how memory can manifest in public and in institutions. I then provide an examination of performance and how it may interrupt the colonial narrative of Canadian history. My intention is to provide an anti-colonial perspective within the so-called SS Komagata Maru crisis of 1914.

Memory and memorialization play a key role in how archives are presented to the public as they examine what it means to remember and why we need to remember these events. This project questions and utilizes the theory of memory (what is remembered) and memorialization (how it is remembered) outlined in the work of Andreas Huyssen and Diana Taylor, who offer multiple perspectives on how nationalized memory is presented and posed through case studies.

German literature scholar and critical theorist Andreas Huyssen (2003) states that, "Media memory alone clearly will not suffice, even though the media occupy ever large chunks of the social and political perception of the world" (Huyssen, 2003, p. 17). Huyssen argues that memory in the form of sculptures can bring forth viewers' individualized memories of broader events. The example he uses is artist Doris Salcedo's installation, titled *Unland: The Orphan's Tunic* (1997), where the artist uses sculpture to voice the story of a young girl's experience during violent uprisings in Panama in 1985 (Huyssen, 2003, p. 17). *Unland: The Orphan's Tunic*

is based on her interviews with a six-year-old girl who had seen her parents brutally murdered. She was incapable of putting what had happened into words; her memory had blocked it out, but in an act of unconscious resistance against the violent oppressors, she was wearing the white dress that her mother had made for her. The installation consists of a table with very thin silk fabric covering the edge of it. Hair is used as thread in the silk table covering. This conveys not only memory and memorialization, but also speaks to themes of haunting, tragedy, fragility, and violence. These sculptures are not meant to be didactic; rather they allow the viewers to come to their own realizations and interpretations. Even though Huyssen is discussing memory sculpture, the same concept can be applied to archives by creating new forms of memory sculptures. I consider my app prototype and archive box to be a form of memory sculpting, as I utilize the archives as objects-to-think-with (Turkle, 2007).

Performance studies scholar Diana Taylor (2003) uses performance as a the practice within the archive as a lens “that enables scholars to analyze events *as* performance” (Taylor, 2003, p. 3). She defines the repertoire as “an alternative perspective on historical processes of transnational contact and invites a remapping of the Americas...by following [the] traditions of embodied practice” through performance, plays, and protests (Taylor, 2003, p. 20). In turn, these serve as scenarios of political claims, cultural identities, discovery, and conquest, and illustrates how these catalyzing moments haunt the Americas. The repertoire and the archive (physical memory—documents, maps, and objects) are symbiotic in that they interact and come into dialogue with each other. For example, artist Simranpreet Anand gestures to the symbiotic relationship of the repertoire and the archive through the embodied performance of washing a turban 376 times in the Vancouver Harbour, where the SS Komagata Maru arrived in Canada and was held for more than 6 weeks, as an act of memorializing each passenger aboard the ship

(Anand, 2020). For my project, I bring together the interaction between the archive (through the archive box) and repertoire (through collaboration with students in developing the exhibition as a form of knowledge mobilization) to transform classrooms to be spaces of inquiry where alternative or silenced historical events can be manifested as provocations.

Like Huyssen's goals for memory sculptures, Anand uses the body and the archive to invite viewers to come to their own understanding of memory and hauntings. Performance work mobilizes language, storytelling, and artefacts as an integrated form of embodiment to combat the Eurocentric gaze (ideals, attitudes, etc. that centralize Eurocentrism) through *acción* and *representación* as form of intervention (Taylor, 2003, p. 14). Taylor argues that "by taking performance seriously as a system of learning, storing, and transmitting knowledge, performance studies allow us to expand what we understand by 'knowledge'" (Taylor, 2003, p. 16). Through meaningful inquiry and archival work, this methodological practice reinforces against (as well as displaces) the colonial narratives of written history (as institutionally consolidated in textbooks, policy, curriculum, and corresponding assessment instruments) and reinforces (makes visible/hearable) the memories and memorialization of racialized and marginalized histories.

An example of present-day resistance of memory and memorialization can be seen through an artistic intervention in the history of street names in Toronto. In 2020, CBC journalist Ania Bessonov (2020) released an article about 5 temporary plaques that were installed on Jarvis Street in Toronto, to raise public awareness about the glorification of slave owners and Toronto's connection to slavery (Bessonov, 2020). The temporary plaques were made of a weather resistant signage material and were zip-tied to poles or trees or staked into the ground. The midnight blue and yellow gold plaques featured a solidarity fist on the top of the plaque and writing about the street's connection to Black history. At the end of each plaque is a quote from Essex County

Black Historical Research Society president Irene Moore Davis which reads “What we accept, what we honour, who we choose to honour, says a lot about what we value as a society” (Bessonov, 2020). One of the plaques erected near the wealthy and picturesque Baby Point area details a grim history of French settler and anti-abolitionist Jacques “James” Baby who kidnapped and enslaved at least 17 Black and Indigenous people to do hard labour (Bessonov, 2020). The goal of this intervention is to inspire public education about local histories. The juxtaposition of the plaques of counter-history and the streets they are erected on allow passersby who were not aware of the historical connections that street sign names must be confronted with counternarratives of an otherwise null history. Street names are one of those everyday things that seem to fade into the background, until an intervention like this shakes us into *conscientization* (Freire, 1968). These plaques spark a cacophony for readers and learners that disrupts the narrative of mainstream education, in which we are taught that Canada was a haven for U.S. enslaved communities; in reality, Canada was just as complicit in enslavement between the 1670s and 1830s as our neighbours to the south. These plaques generated important discussions on how to navigate and resist colonial knowledge in memorialization. If we (educators and students) think about memory as culturally constituted—with certain memories narratively encoded in curriculum and textbooks—such a reframing redirects our thinking about historical foundations and their impact on the present.

Pedagogy theorist Roger I. Simon (2005) similarly invites people to allow history to “touch us,” in that through the stories of the historical past, individuals can be more open and able to understand multiple perspectives. He argues that our kinship with history can shape and develop individual social memory as a form of “shared pedagogy of ‘re-memory’” (p. 89). By not remembering through multiple perspectives, the memory of that historical event

discontinues, flattens into a one-dimensional narrative, or is erased from mainstream narrativization.

Expanding upon this work, education scholar Mario Di Paolantonio (2015) furthers Simon's sentiments through the concept of "remembrance-learning," where "the task is to learn how to ethically receive and translate the remnants of a difficult past into our present, so that we might be able to more thoroughly think through our time" (Di Paolantonio, 2015, p. 264). In his collaborative study, a series of documents and images of the Nazi's decisions "to have a brigade of Jewish slave labourers dig up and cremate the bodies of over 60,000 Jews murdered since the German invasion of Vilna" was contrasted with "photographs of brigade workers digging up bodies, drawings of the scene of cremation by a survivor of the brigade and testimony given at Nuremberg" (p. 273). What this contradistinction does is move away from just witnessing and reframes how much of our past is present in the now (p. 273). This is a theoretical and visual move that involves asking the reader/viewer to learn *from* instead of *about* history (Britzman, 1998).

Finding Voices invokes a digital act of remembrance as commemoration and their subsequent (hi)stories have moved to online spaces, enabling people to engage with the kinds of links needed to disrupt singular notions of historical knowing, shifting 'evidence' into a story or argument to learn with. Social media accounts on Instagram, for example, have brought some of the ghosts into the forefront of colonial history and public knowledge. For example, *The Toronto Star* newspaper has created a digital storytelling archive on Instagram to not only mobilize knowledge into public spaces (as physical archives tend to create a barrier for the public as the institution decides what is allowed to be seen and what is restricted from view), but also to invite people to engage with local history through the comments (The Toronto Star, n.d.). Comments

range from initial reactions (words and emoji forms) to inquiries about who the photographer was at the time the photograph was taken. I utilize this example to point out readers' engagement within the comments section. The commenters are immersed, as well as engaged through photographs and the lengthy captions, as a juxtapositional way to connect to our present-day issues and connect those dots. The juxtaposition of engaging these archived ghosts allow an exploring of these spheres or pockets of memory and response to engaging in different perspectives and dialogues (inviting curiosity and ongoing inquiry).

The archive box I have produced from my archival encounters provides two spaces of memory and memorialization—in both physical and digital realms (a kind of AR juxtaposition technique). Students interacting with these digital (AR) and physical (reproductions of archival artefacts) can foster connections and a new “sense of place” which is defined as “the combination of feelings of attachment, dependence, concern, identity, and belonging that people develop regarding a place [or event]” (Chang et al., 2015, p. 166). This way of learning and understanding history can promote an awareness regarding complex issues such as immigration and racial politics.

This section has examined how memory and memorialization seep within history education, particularly through textbooks, performance, and public interventions. By engaging with the theories of Andreas Huyssen and Diana Taylor, I highlight how memory is constructed, embodied, and contested within both institutional and informal spaces. Through case studies such as the SS Komagata Maru and contemporary artistic interventions, this section has demonstrated how alternative modes of remembering, through performance, digital storytelling, and archival engagement, can challenge colonial narratives and foster critical historical inquiry. These approaches offer educators and students new ways to engage with history as a living,

participatory process rather than a fixed account relegated to the past. In the following section, I build on these insights by exploring how such memory practices can be mobilized through engagements with hauntological practices, by providing a theoretical context through which we might turn to ghosts and spectres when doing postcolonial and reparative research in the archive. By examining the works of Eve Tuck and C. Ree (2013) and Avery Gordon (1997), I work towards understanding the underlying (hi)stories that disrupt the colonial narratives within history textbooks.

3.4 Accountability Through Ghosts and Spectres

No...you read that right. I am talking about ghosts. The ghosts that appear in the corner of your eyes and make the hairs on the back of your neck stand up. I am searching for ghosts in the archive, and as such, my role in this work is to listen; I allow the ghosts and spectres to speak to me, to let me feel what they want to feel, let me see what they want me to see, and listen to their hi(stories).

In their work *A Glossary of Haunting* (2013), Eve Tuck and C. Ree make the cautionary promise that “Erasure and defacement concoct ghosts; I don’t want to haunt you, but I will” (p. 643). This is a phrase which struck me; it was one of those readings that shook me to my core and opened my eyes. When thinking about archival objects, archives, and history, I immediately think about *haunting*, in both the literal and metaphorical sense.

When one thinks about ghosts, spectres, or phantoms, they may picture cartoonish renderings of supernatural figures, such as Casper the friendly ghost. However, in my research, ghosts, and spectres are the unsettling conversations of marginalized and racialized historical bodies that push back against the silences of an official national history. Hauntology allows me to think about archival objects not just as inanimate objects, but as physical manifestations of

stories, warnings, and foreshadowing from real-life historical actors. In the same breath, there is also a sense of hope and futurities that the spectres may invoke through their manifestations of stories.

For example, sociology professor Avery Gordon critiques the field of sociology in her book *Ghostly Matters* (1997), which encompasses the “banal commonplace that, ‘life is complicated’” (Gordon, 1997, p. vii), by stating that there is an in-between-ness of the expectations of the state and the reality of history. Her notion of haunting and hauntology introduces another perspective on the sociological framework through having her readers realize that the public should be mindful of what is presented to them for consumption when learning about the past as well as actual ghosts. Her critique of sociology stems from witnessing how sociology and other relevant fields (anthropology) treat historical events as nothing more than just objects or artefacts rather than evidence filled with emotions and (hi)stories.

Hauntology is important in the fields of sociology and history, in that the persistence of historical energies (spectres and ghosts) associated with emancipatory struggles go beyond identifying instances of government abuse. Hauntology also makes us think ethically about how historical events are both complicit with and resistant to settler colonialism. For example, while the passengers aboard the SS Komagata Maru challenged the racist immigration policies of the British Empire, they were also complicit in colonialism via intending to settle on stolen Indigenous lands. Nishant Upadhyay (2024) examines this notion through the praxis of “storytelling, art, and solidarity-making” (Upadhyay, 2024, p. 144). Through hauntology, various voices are highlighted to complicate a history that became linear in governmental documents. Alongside a/r/tography, educators and students can enact solidarity by working through the complexities of this history and weaving together these entanglements. By bringing

representation into our education system, we are not only honouring the ghosts, but also acknowledging the wrongs done to them by the government's abuse of power. In addition, acknowledging ghosts in education may produce an awareness in students who may then be engaged with social justice issues and civic duty.

The archive contains ghosts and spectres with (hi)stories, waiting to be shared and recognized. Gordon writes, “analyzing hauntings might lead to a more complex understanding of the generative structures and moving parts of historically embedded social formations” (Gordon, 1997, p. 19). The archive (local, regional, national, international, and familial) holds pieces of history and traces of what the ghosts have endured. Accordingly, my project uses Tuck and Ree's definition of ghosts. In their work, the *ghost* refers to the genocide committed against Indigenous children confined within so-called Indian Residential Schools. Even though their notion of haunting emerges from histories of residential schools, and in relation to Indigenous resiliency, I feel it also provides an opening for acts of co-resistance with other communities who are also haunted by ghosts. In the section about my archive visit, I have used the methodological and theoretical frameworks of hauntology to interact with the ghosts in the archive and objects in a respectful way—by having continuous conversations about what I am looking for and what my intentions are. In a way, this becomes a form of informed consent for the ghosts and spectres.

3.5 Multimodal Learning and Speculative Futures

While my archival research is aimed at activating the ghosts of the past, my pedagogical and creative practice is oriented towards the future. This section discusses ways in which educators can think about their teaching practices in non-traditional ways, such as by using multimodal methods and rejecting settler-colonial narratives through an orientation towards Black and Indigenous futurities. This section features scholars such as Pippa Stein (2007), W.

Guy Clarke & John K. Lee (2004), Jennifer Challenor & Minhua Ma (2019), and Zeus Leonardo (2013), to frame the use of multimodal learning, as well as Eve Tuck & Rubén A. Gaztambide-Fernández (2013) to examine the ways in which educators can take up futurities in their pedagogies. These authors help me imagine what this project can mean beyond the dissertation, the classroom, and the present moment that is weighed down by imagined settler futures.

The Ontario Ministry of Education (OME) (2023; 2018) expects students to “use the historical inquiry process and the concepts of historical thinking¹¹ when investigating aspects of Canadian history” while at the same time developing transferrable skills that would be useful for career pathways (Ontario Ministry of Education, 2018, p. 107). Multimodality—the application of multiple literacies, disciplines and modes in teaching and learning—can not only engage students in multiple perspectives within Canadian history, but also help students foster transferrable skills for the 21st century. There are benefits to students learning about non-traditional ways of thinking about the past and applying them to their historical knowledge. Language and literacy scholar Pippa Stein (2007) argues that a multimodal classroom can produce a diverse classroom for social justice pedagogy. According to Stein, multimodality recognizes that there is no one approach to teaching, rather:

A mode is a social semiotic: modes have characteristic forms, affordances and distinctive ways of interacting with each other. Some modes are better than other modes for certain kinds of representational work. Each mode provides teachers and students with a range of semiotic resources from which to choose, and the choice from these

¹¹ Historical Thinking: six concepts that engage students in critically on historical significance, primary source evidence, continuity and change, cause and consequence, historical perspectives and ethical dimensions. Theoretically, students will come out of the history course with these skillsets, however, based on my participants’ survey answers in Chapter 8, this is not the case.

available resources is made on the basis of the sign-maker's interests and the resources which are available. (pp. 121-122)

Building on multi-modality as a catalyst for historical inquiry, an example of meaningful engagements with history can be seen through the work of W. Guy Clarke and curriculum scholar John K. Lee (2004), who developed a local history class for high school students in the state of Georgia, designed to create meaningful ways of constructing history and inquiring into its meanings. Students were tasked to focus on the history of Cherokee County and connect it back to their own lived experiences. They argue that:

The study of local history enables students to connect to the major themes historians use to organize the past. Studying local history combines the benefits of authenticity and active engagement. Local historical inquiry also provides especially fertile ground for improving students' ability to contextualize their historical thinking and, in turn, engage in self-reflection. (Clarke & Lee, 2004, p. 84)

Their research expanded to include technology and digital storytelling. Students were invited to use digital means to compile a comprehensive list of properties in the area throughout history. Students (in groups) were to create historical questions about a property of their choice.

For example, one group of students examined a property located near their homes on local Highway 20. Although a number of questions arose from an examination of the property survey, the students decided to investigate the descriptive phrase "busy Highway 20." The students wanted to know whether Highway 20 was "busy" in the 1930s when the structure was built, or whether it was "busy" in 1988, when the survey was completed. More important, they wanted to know what it meant to be "busy" at

both periods of time, so as to see how the place changed over time. (Clarke & Lee, 2004, p. 86)

Their findings conclude that “current practices in the teaching and learning of history can be altered by applying the unique and dynamic characteristics of the Web to local historical education and research” (Clarke & Lee, 2004, pg. 87). Clarke and Lee provide a framework for how inquiry-driven pedagogies like the one cited above, where students are actively involved in authentic practices of knowledge making, can go beyond what traditional schooling can offer while also meeting the curriculum guidelines set out by the government.

Traditionally, history is taught through lectures and sometimes videos in conjunction with textbooks (e.g., watching *Saving Private Ryan* to understand WWI trench-based warfare as outlined in the textbook’s chapter), but the net effect is to retain and regurgitate as much information as possible. The issue with traditional learning is that there is no sense of long-term memory (as in most of the learning is a chronological understanding of events rather than a sociological understanding) and limited attention to how history classrooms affect students’ ability to identify forms of oppression in our present day while also engaging with archival research (i.e., enabling students to do the critical work and disseminate in creative ways) and digital skills (augmented reality) to create embodied ways of learning and skill application. Multimodal learning can help provide new ways for students to incorporate research and digital literacy skills within traditional and non-traditional artmaking and research practices. This is an especially crucial insight in a time when many teachers are forgoing textbooks due to de-streaming plans from the school districts for certain subjects (e.g., math and geography).

My project utilizes augmented reality which can invite students to be immersed in history. Digital technology scholars Jennifer Challenor and Minhua Ma (2019) argue that “Being

physically present at the site provides the user with the sense of historical empathy that cannot be achieved from a classroom with a textbook” (Challenor & Ma, 2019, p. 4).¹² Their case study with Maitland Holocaust Museum depicted the perspective of a teenager during the rise of fascism and Nazism, presented in the form of diary-like storytelling (Challenor & Ma, 2019, p. 6). The augmented reality experience included survivor stories, stereoscopic 3D video, and 3D animations. In studying its impact on learners, the authors conclude that “These types of educational experiences that allow the student to participate in a historical event with broader context...are important not only to teach history, but to give an understanding about the way that the current world was shaped by a series of both major and minor decisions, therefore providing a sense of empathy and/or sympathy with historical figures” (Challenor & Ma, 2019, p. 4).

Finding Voices, and its accompanying archive box, is inspired by how Challenor and Ma use digital works as a form of storytelling. The items in the box can be activated through an AR app/QR code that will give additional information and prompts for students. The exhibition makes students collaborate and think about how to create a narrative through curation and immersive ways of engaging viewers. The surveys in this study further prompt students to reflect on what they have learned and done, and to question if a non-traditional way of learning history can be just as effective as writing a traditional paper.

Following this orientation at the intersection of historical education and multimodal pedagogies, in addition to fostering “21st century skills,” Leonardo introduces the concept of a ‘toolkit’ for teaching history with a critical race theory focus, which can include what Kevin K.

¹² Historical Empathy refers to the feelings of empathy when learning historical events. Many students may feel desensitized to some historical events as textbooks or how the curriculum is set up in that it ‘sanitizes’ historical events to become digestible. As argued by Barton and Levstik (2004), beyond the reconstruction of historical perspectives, empathy “invites us to care with and about people in the past, to be concerned with what happened to them and how they experienced their lives” (Barton & Levstik, 2004, pp. 207-208).

Kumashiro (2001) calls “underlying stories” by looking beyond the known. His example of the Second World War and the Holocaust posits that while everyone has a general knowledge of these events, and the murder of 6 million Jews, what remains unacknowledged are that women also contributed to the war efforts, and that queer people were also persecuted by the Nazi regime, among others, such as the Roma, Poles and other Slavic peoples, communists, Black people, people with disabilities, and everyone else who did not conform to ideal of the one pure *Volk* to come. What is missing, in other words, are the complex perspectives and voices that make history non-linear. Kumashiro states that learning multiple perspectives and the “juxtaposition of different or more voices into a curriculum does not get us closer to a truth, but it can give a different ‘story,’ a different framework for thinking, identifying, and acting in oppressive and/or anti-oppressive ways” (Kumashiro, 2001, p. 6). By adding multiple narratives to existing units, teachers can facilitate students’ capacity to challenge colonial and patriarchal mainstream history narratives, and allow students to truly engage with history rather than treat it as information to be deposited. History itself becomes complex and rich within this framework, with dissonant narratives and competing voices instead of remaining sterile, linear, and authoritatively monological. As mentioned in Chapter 3.3, history becomes (hi)story. Following this approach, students stand to gain a better understanding of contemporary issues through the skills gained from engaging with difficult and multiple knowledges. Doing so can empower them to become better ‘resistors’ against social justice issues and allies to marginalized communities, as well as enable their capacity to hold spaces for oppressed voices to emerge.

In pursuit of this kind of multidirectional, pluri-vocal orientation towards history, Indigenous anthropologist Audra Simpson (Simpson, 2021) builds on multiple knowledges through Jodi Byrd’s (2011) method of *cacophony* in history writing, which allows for the

“possibility of multiple, sometime competing and contesting, narratives of truth... [I]t privileges the lives of multiple narratives and invites us to listen closely...” (Simpson, 2021, p. 137). These potential ways of engaging with history in non-traditional ways may build towards a sense of futurity or an imagined future for our curriculum. Audra’s example of cacophony is how the Truth and Reconciliation commission invokes multiple voices and actions from everyone (Simpson, 2021, p. 138). On one hand, Indigenous people voice their experiences, while on the other, the government and other institutions continue to dispossess Indigenous communities from their land, languages, and cultures. This creates a cacophony of perspectives and voices. Similarly, Di Paolantonio’s (2018) collaborative project creates a sense of cacophony through by juxtaposing voices of Holocaust victims and survivors alongside those of the Nazi regime officials. My project mobilizes the sense of cacophony by having multiple perspectives from both the *Komagata Maru* passengers and government officials. By having students engage with cacophony, this kind of work invites them to question how history is typically composed and recorded in their textbooks in alignment with singular historical narratives and accounts. It allows them also to think deeper through their own historical inquiry research projects. What I am proposing for education additionally invokes a sense of *futurity* that brings to view not just the stories of domination and oppression, but how everyday actors (marginalized or allies) challenged and/or disrupted the established order of things and, accordingly, how individuals may do so in the present and future.

Futurity describes the potential quality of our future and is therefore generative for considering how current changes to our curriculum can allow students to make meaningful connections between past histories and possible futures. My proposed project is an imagined way that history education can be transformed beyond revising or updating the textbook. Unangâx

pedagogy scholar Eve Tuck and cultural studies scholar Rubén A. Gaztambide-Fernández (2013) call on educators to reject settler-colonial curriculum projects that ensure a *settler futurity* (defined as settler’s reliance on stolen land) and thwart such projects through decolonization, CRT, browning, and rematriation and refusal of colonial-settler notions (Tuck & Gaztambide-Fernández, 2013, p. 80). Through cacophony, futurity creates a potential for students to think about how the past can affect our present and futures. Both futurity and cacophony allow me to think about what multiple perspectives in Canadian history can do to help students think critically about the land in which they are situated on.

Human geography scholar Andrew Baldwin (2012) argues that “the future is rendered knowable through specific practices (i.e., calculation, imagination, and performance) and, in turn, intervenes upon the present through three anticipatory logics (i.e., pre-caution, pre-emption and preparedness)” (Baldwin, 2012, p. 173). While multiculturalism is the most widespread, state-sponsored response to systemic racism in Canada thus far, it is not the most useful in curriculum development and revisions. Multiculturalism’s primary focus (as an anticipatory regime) is to be aesthetically diverse and inclusive through diversity hiring, marketing materials, new programming, and resources for racialized and marginalized communities. This may sound like a utopic dream, but our “multicultural” nation lacks awareness of the struggles of racialized and marginalized solidarity throughout history and is still premised on the occupation of stolen Indigenous territory, by white, Black and racialized subjects alike (Tuck & Gaztambide-Fernández, 2013, p. 81; Thobani, 2005). Bajan poet Edward Kamau Brathwaite (1981) brings his readers back from this utopic dream through the theme of “arrivant”—tracing the historical, cultural, spiritual, and political development of enslaved people from Africa to the Caribbean (Brathwaite, 1981). On the other hand, CRT helps facilitate an understanding that systemic

racism is not contained to singular instances of racism, but rather examines “how white supremacy produces an exalted category of whiteness, how certain groups vie for whiteness and gain ascendancy in the racial hierarchy on which colonization is premised” (Tuck & Gaztambide-Fernández, 2013, p. 82). “Browning” interrupts the colonial narrative and gaze by highlighting “the myriad of complicated ways in which white supremacy and colonization constantly manifest themselves in curriculum scholarship” (Tuck & Gaztambide-Fernández, 2013, p. 83). It is rude, crude, and refuses to have curriculum and history romanticize (i.e., Canada being viewed as a multicultural utopia) the achievements and adversities of racialized communities. Finally, rematriation “refers to the work of community members and scholars in curriculum studies who directly address the complicity of curricula in the maintenance of settler colonialism” (Tuck & Gaztambide-Fernández, 2013, p. 84). Tuck and Gaztambide-Fernández (2013) offer a framework through which we might build upon alternative orientation towards history, in pursuit of radically different futures; an approach that is central to this project.

An example of futurism and AR in practice can be seen in Joely BigEagle-Kequahtoway, Rene Dufour-Contreras, Taylor McArthur, and Evie Johnny Ruddy’s geo-location AR app *Buffalo Futurism*, launched in 2024. In 2022, Joely and Lorne BigEagle-Kequahtoway created a buffalo effigy using boulders that would, from an aerial view, mimic the shape of a buffalo (Common Weal Community Arts, 2024). *Buffalo Futurism* transports users to a future where the buffalo return to māmowimīwēyitamōwin Park (Common Weal Community Arts, 2024). The app features audio stories of the buffalo and interactive 3D elements of crocuses, tipis, buffalos, zombies and more as users are guided through the park’s future reimaginings and hope for the return of the buffalo. The artists’ layering of 3D

components with audio and sounds challenges Western concepts of linear histories: an inspiration for my own work with AR technology.

Under certain conditions (i.e., interventionist methods like artmaking), multimodality and speculative futures can put memory, haunting, and racialized and marginalized epistemologies at the forefront of the mainstream narrative through community or participatory practices by educators and artists. My project combines these intersecting ideas about memory, the archive, and CRT to create a series of tangible multimodal objects that aim to have the viewer—in this case, students—interact with, explore, and come to their own understandings of the multiple perspectives within Canadian history.

3.6 The Null Curriculum

Since this project is interested in how history education shapes student subjectivity by recognizing some identities and obscuring others, the concept of the null curriculum, introduced by Elliot W. Eisner (1985), is important to my research. This concept allows me to engage with the possibilities of how the null curriculum can be provoked for teachers, urging them to include multi-perspectival and anti-racist approaches to the mainstream history curriculum.

There are two types of curricula being delivered in Ontario history classes—the mainstream curriculum shaped by neoliberalism that does the bare minimum in employing anti-racist pedagogies and teaching civic responsibility under the banner of multiculturalism; and the null curriculum—the untold story of resistance, refusal, and rematriation that Thobani (2005; 2007) and Tuck & Gaztambide-Fernández (2013) argue for; untold stories that, if engaged, would teach students about their civic responsibilities and engage them in considering other historical perspectives. The null curriculum of the Ontario history classroom is that which is not being taught (in this case, a history that is complex and discusses social justice issues such as

racism, gender, and class); it is this curriculum that my project hopes to activate in the classroom via an engagement with archival objects. The null curriculum is an unseen, unheard curriculum that lays underneath the manifest curriculum of the lesson plans laid out by teachers; a dormant set of norms and values that go unseen until they no longer can be. The null curriculum can be provoked when there are ruptures formed in the current curriculum. This can be caused by external events like the toppling of Egerton Ryerson's statue (CBC News, 2021), which calls to reform education to include a comprehensive curriculum on Indigenous histories. Other forms can be the educator's personal experiences in understanding and trying to implement multi-perspective pedagogies. This section focuses on Elliot W. Eisner's key concept of the null curriculum, asking what it does to the mainstream history curriculum, what it looks like, and how aesthetic experiences might activate the null curriculum.

Art and education scholar Elliot W. Eisner (1985) coined the term *null curriculum* to describe and call attention to what is *not* taught in mainstream curricula (Eisner, 1985, p. 97). Eisner calls for educators to question who and what is missing in this narrative, and questions what it means to acknowledge a curriculum that does not exist or has been rejected by mainstream policymakers. Educators who can address the null curriculum—not always an easy project, as I go on to discuss—usually navigate it by adding multiple perspectives onto the existing curriculum or subverting the dominant state narrative through intervention-based approaches. Students may be able to introduce it, if they are enabled to activate the null curriculum explicitly through their archival and research work. The *Finding Voices* project provides an example of how to activate the null curriculum through the a/r/tography method outlined in this dissertation.

For example, interactive games and media scholar Owen Gottlieb’s (2017) use of the null curriculum came in the form of a mobile, place-based AR history game called “Jewish Time Jump: New York.” Using the Academic and Registration Information System (ARIS) platform for Apple’s mobile operation system (iOS), the app allowed forty-five fifth and sixth grade students (accompanied by parents/guardians) to travel back in time and take on the role of a reporter and retrieve a “story ‘lost to time’” during the 1909 Uprising of 20,000—the largest woman-led strike in US history—and the Triangle Shirtwaist Factory fire of 1911—a factory fire after the strike which had 146 casualties—both in New York (Gottlieb, 2017, p. 292). The app was introduced to students by Gottlieb in supplementary Hebrew schools, and the students either downloaded the app on their devices, or a parent’s device. Gottlieb’s study included a pre-survey questionnaire for students, a tutorial on using the app, observational research via play recording (user logs in the form of audio and video), and post-game interviews with students. In addition to the game, a website dedicated to online curriculum resources on the topics of disenfranchisement in history accompanied the launch of the app (Gottlieb, 2017, pg. 296). Gottlieb argues that “embedding the game experience in a wider curriculum provides many more opportunities to delve deeply into the subject matter [American Jewish history], to reflect, to engage in continued discussions, activities, and questions” (Gottlieb, 2017, p. 297). Much like Gottlieb’s project, *Finding Voices* aims to have students hear from multiple perspectives (currently part of the null curriculum) within the historical event of the SS Komagata Maru incident (included as a “bullet point” historical event to be referenced in the explicit curriculum of secondary school history classes), instead of only engaging with mainstream colonial curricula. By using augmented reality as a portal, my hope is that students can navigate the difficult knowledge presented by a history of social violence in Canada.

3.7 History Education and Difficult Knowledge

Education scholars Alice Pitt and Deborah Britzman (2003) describe the concept of difficult knowledge as not only the representation of social traumas in curriculum, but also how individuals (mainly students) encounter these representations in pedagogy (Pitt & Britzman, 2003, p. 755). Difficult knowledge allows for engagement with shocking and shameful parts of our history—often relegated to the status of null curriculum since it is so emotionally and psychically difficult to engage—and creates opportunities for students to challenge existing historical narratives while also contending with their feelings regarding the truth/knowledge being ‘kept’ from them in the historical narratives they have culturally received. Pitt and Britzman argue that difficult knowledge causes a cacophony (negative and positive) in the learner’s identity and disrupts their perspective of the world they are living in. In some cases, the refusal to engage with difficult knowledge creates a resistance against and refusal for knowledge itself. Exploring with difficult knowledge through tactile means can allow for a slower mode of engagement with traumatic history. This echoes back to Huyssen’s notions of realizations as, when viewers interact with memory sculptures, they are also engaging with multiple perspectives of an historical event while also contending with their own emotions as they come to these realizations. Expanding on Pitt and Britzman’s use of difficult knowledge, education scholars Sara Matthews and H. James Garrett (2016) posit that when “students encounter representations of difficult social histories as part of the classroom curriculum, they meet something potentially unbearable about the larger world that touches on their own archive of conflict” (Matthews & Garrett, 2016, p. 30). This state of comfortability leaves traces of internal anxieties from “not knowing” (null curriculum), whereas the mainstream curriculum has been “sanitized” to protect the learner from being uncomfortable and internally anxious with not knowing (Farley, 2009).

However, guilt is not a foundation for action and solidarity. Difficult knowledge can therefore be used to challenge normative curricula through an action-approach. Education scholar Lisa Farley (2009) rewrites Britzman's argument to argue that:

no matter how meticulous one's pedagogy and no matter how well-planned one's response, the adult cannot predict the child's question, nor the meanings that child will make from the knowledge one offers in response. (Farley, 2009, p. 543)

Farley posits that history education can be engaged as an encounter or something to be naturally curious about instead of as confrontation. To give teachers an incentive to learn and teach the null curriculum, education scholars Rachel Endo and Deb Sheffer (2022) posit that teacher education programs need to expand their "awareness of the politics of knowledge [which] is to situate the relationship between official versus null curricula, with an emphasis on the latter" (Endo & Sheffer, 2022, p. 5). In their interviews with teachers, they ask educators to reflect on how and why they decided to teach multiple perspectives within American history (Endo & Sheffer, 2022). Their findings conclude that due to local or global events, such as the September 11th, 2001 attacks (colloquially known as 9/11), or due to personal experiences in teacher education programs, in-service teachers feel it is their responsibility to create a multi-perspectival model for history education to ensure students can be "provided with a balanced curriculum that affirms their experiences while providing regular opportunities to learn about others" (Endo & Sheffer, p. 6; Style, 1996). The challenges for getting teachers to engage the null curriculum and navigate their emotions about difficult knowledge is in part about having them accept that their pedagogies for history curriculum will continually change as new narratives and perspectives are uncovered. For students, the challenge is getting them to discuss and compare the past with the present and contend with the idea that Canada is not a utopic land

but, rather, a land filled with complex and often difficult histories. To mitigate this situation, I call for the use of the arts as a way to engage teachers and students in navigating complex and difficult knowledge surrounding multiple perspectives within Canadian history.

Curriculum pedagogy scholar Penney Clark and social studies education scholar Allan Sears (2020) argue that studying the past is critical to contemporary life and that the arts are an essential part of this process. Engaging the arts in history classrooms, they contend, fosters in students:

more complex understandings of history and the nature of truth; cross-curricular/disciplinary connections; consideration of the relationship between history, historical consciousness and collective memory; the introduction of Indigenous perspectives; and the development of critical thinking (Clark & Sears, 2020, p. 20).

Clark and Sears make a distinction between “the past” and “history,” insisting that history looks at key moments or “selected parts,” while the past is “everything that has happened” (Clark & Sears, 2020, p. 250). The arts can navigate this tension by inserting multiple perspectives within history or creating interconnected webs where students question the wider socio-historical contexts that led to the production of historical events (Clark & Sears, 2020, p. 257). Similarly, Maxine Greene (2000) calls attention to the aesthetic as a way for students to explore webbed interconnections between the content taught in classrooms, connections that can be navigated through the arts, and engagements with their lived realities.

In the case of *Finding Voices*, students are asked in the survey about their overall experience after engaging with the archive box, app, and exhibition, and are given the opportunity to consider any lingering questions that they might have about history. By having students engage artistically with their historical inquiries, I hope to provide them with “clear

windows into the perspectives of other times and peoples” (Clark & Sears, 2020, p. 267)—in other words, what is currently the null curriculum in the history curriculum set by the state—and to insist that both the content and methods be part of the mainstream curriculum.

This is essential learning, even as we might consider possible difficulties associated with bringing the null curriculum to the fore; anticipated problems in bringing difficult knowledge to students and encouraging them to engage with it is, first and foremost, the refusal to confront their settler-colonial beliefs. There is a sense of comfort that many feel when thinking that Canada has no “problematic” history. Confronting their settler-colonial perspectives can cause a lot of discomfort (as seen through Student A’s experience in later chapters). This echoes back to Pitt and Britzman’s notions on difficult knowledge and the resistance that comes from it. In Student A’s experience, the teacher refusal to engage with difficult knowledge led to a resistance in knowledge itself, which later impacted the student’s understanding of the null curriculum and difficult histories.

Other ways to prevent further resistance is considering Saidiya Hartman’s (2021) method of critical fabulations, and how it allows her to confront her beliefs by “engaging with extant archival materials critically and creatively” through intimately coming to one’s own conclusion (Hartman, 2021, p. 129). Mario Di Paolantonio (2018) furthers this sentiment through the pedagogy of witnessing; allowing a “mode of attentiveness that asks us to be susceptible, vulnerable and open to the difficulty of welcoming the otherness of the other beyond any facile “cognitivation,” categorization or identification” (Di Paolantonio, 2018, p. 2). Echoing Métis artist David Garneau’s (2013) approach, my project negotiates aesthetics and pedagogy through “decolonial aesthetic activism” by changing the mainstream orientations of Canadian history (Garneau, 2013, p. 21). By having creative ways of expressing their knowledge, students can co-

construct new orientations towards knowing through the navigation of the multiple perspectives that they interpret. Through this work, students can also confront the settler-colonial mainstream narratives embedded within Canadian history education. The following section will further examine ways in which creation-based research can engage with history in critical and radical ways.

3.8 I Create as I Learn...

This section outlines research creation as a form of scholarly and artistic research, laying the groundwork for my project by framing the making of prototypes as a scholarly method. Particularly helpful to my project is Natalie Loveless's (2019; 2015) definition of research creation, which argues that art can be a valid form of research. I then provide a definition on maker pedagogy and how it can be implemented in classrooms. Lastly, I provide three examples of how augmented reality, art making, and history can fuse to inject the curriculum with artmaking in radical ways.

In 2020, I had an unfortunate encounter with a student in the Faculty of Education's doctoral program who did not understand, and even mocked, the need for research-creation frameworks and methods. "What is the value of arts in academia?" he would ask. This sparked a deep-seated rage in the pit of stomach. Before beginning my PhD, I spent six years weaving research with art making to create ways of mobilizing knowledge through museums and galleries. Artmaking allows me to weave what I have researched into different forms of representation. It has allowed me to create webs in the form of making and curating. In curation, I create narratives to allow viewers to be immersed in my work's process and be on a journey of learning through either seeing or through tactile means. Now, the setting for my work has changed to the classroom, which I believe is a generative space in which emergent and

transformative thinking happens. By having classrooms be open-minded to art-making methods as a form of knowledge, students can create interconnected webs between history and present experience through experiential learning, enabling them to become active in shaping “futures.”

Research-creation scholar Natalie Loveless (2019; 2015) describes research-creation as an “interdisciplinary theory-practice that mobilizes artistic methodologies but is not limited to the arts proper (visual or otherwise)” (Loveless, 2019, p. 224). She describes a shift in pedagogy where the ideas surrounding inter-pedagogical research can also manifest in creation and making (Loveless, 2015, p. 53). Loveless describes how research creation creates “alternate research worlds” (Loveless, 2015, p. 54), which I interpret as manifesting and interlacing various pedagogical and artistic methods to create narratives and experiences that are outside the neoliberal realm of post-secondary education. *Finding Voices* mobilizes Loveless’s definition of research creation by weaving artmaking in the form of an interactive installation with archival research to create “alternative worlds”. Juxtaposing creation and research into tangible forms allows viewers to look closely at the work, rather than passing through something which might otherwise feel abstract, purely conceptual, or distanced. It stops the viewer to think about what the work is about instead of immediately think about the ‘prettiness’ of it. While aesthetics does play a role in enticing the viewer, it is through that enticement that viewers can immerse themselves in the research aspect of the work.

Feminist theorist Cyd Cipolla also describes research creation as a form of maker pedagogy, which introduces making and creating in pedagogy to highlight “the importance of moving beyond critique” and into a realm of thinking through making and experimenting (Cipolla, 2019, p. 262). Cipolla implemented a maker lab focus for her humanities class, in which social justice issues relating to feminism are introduced alongside workshops on coding

and electronics. Cipolla posits that educators do not need to be experts in the field of technology to enlist maker pedagogy strategies: rather, she states that the goal of her maker lab is to teach students the basics of these technologies so that they can “navigate available resources for project building” (Cipolla, 2019, p. 273). Her findings conclude that, through maker pedagogy, her students were better able to question and discuss social justice issues regarding gender and race. Students were able to combine their emergent interests with making and creating (Cipolla, 2019, p. 275). If given the chance by their teachers, I posit that students can make deeper connections to social justice issues in history classrooms by engaging with the archive and creating works that are meaningful to their research.

3.8.1 Examples of Augmented Reality as Pedagogy

There are three artists/collectives that I have turned to help situate the augmented reality component of my project. Kinfolk Tech is an ed-tech non-profit organization who “bring attention to underrepresented historical contexts and grow awareness of inequity and injustice” (Kinfolk Tech, 2022). Their apps, *kinfolk* and *UNSUNG* use a site-based and interactive augmented reality platform to bring Black history to life through counter-monuments. They “aim to educate the next generation by writing Black and Brown narratives into American curricula, enhanced through the power of augmented reality...[and] challenge inequitable distribution of historical attention, while empowering communities to collaborate” (Kinfolk Tech, 2022). This project inspires my work with the archival box by thinking about how curiosity can play a role in learning and engagement with history.

Another way in which we see artists, makers, and thinkers intervene in the colonial narrative through augmented reality is through a project created by former U.S. Treasurer Rosie Rios. In her project *Notable Women* (2018), she examines ways in which we can imagine

powerful women on symbolic objects such as money. Viewers can download an app where when using the interface's camera function to hover over any paper bill and replace the so-called "founding fathers" on their face with 100 notable women throughout history, such as Harriet Tubman and Queen Lili'uokalani. When you tap on the screen, information about the notable woman and their achievements are displayed as an added layer. *What happens if we see notable women on the Canadian \$5 bill that replaces the Prime Ministers or the colonizing Queen?* This project inspires me to subvert the official narrative of the Komagata Maru by inserting the perspective of the Other (the passengers), thus focusing on a voice that would otherwise be silenced. While the archive box will have objects pertaining to the perspective of the Inspector and those in power, most of the box and app will include the voice and perspective of the passengers involved, especially thinking about how those in power affect the lives of the disenfranchised. The point of this project is not to confront students with traumatic histories; rather, the aim of this project is to enable students to navigate and weave through histories via through social justice lenses, allowing students to come to their own realizations of historical events.

Lastly, in terms of raising awareness through localized history, interdisciplinary research group Narratives in Space+Time Society (NiS+TS) construct ways in which knowledge can be mobilized through digital media such as Global Positioning Systems (GPS), digital storytelling, mobility tracking and guided walks (Narratives in Space+Time Society [NiS+TS], 2022). One of their projects, *Walking the Debris Field* (2014-2017), "demonstrates how the past [the Halifax Explosion] and present haunt the future, and asks what is learned through a contemporary practice of exploring interdisciplinary methods for creating historical knowledge and understanding" (NiS+TS, 2022). An example of their multi-faceted program includes a GPS-

based storytelling app called *Drifts*, which has users utilize their devices to prompt them to walk to the various sites of the Halifax Explosion and immerse themselves in “stories about the past and present, and share images and artifacts from [the day]” (NiS+TS, 2023). I am inspired by this project’s use of prompts—such as “This is a historic place. Do we always need to be reminded of this?” and “Are you walking in the city today? Can you feel the authority of streets and buildings around you? Tell us how.”—which has inspired me to utilize prompts while engaging in my own AR design. By having prompts, students can start linking what they are learning to bigger social issues, while helping teachers create bigger discussions with their students in classrooms.

These examples demonstrate how augmented reality can provide an intervention into public pedagogy, critical engagement, and state-controlled knowledge. By mobilizing knowledge into sites of learning, students can critically engage with multiple perspectives within Canadian history. The next section will conclude by tying together these frameworks, and how this constellation may present in history classrooms.

3.9 Concluding Thoughts

The interconnected theoretical frameworks explored in this chapter—critical race theory, intersectionality, hauntology, anti-colonial archival research, research creation, and the concept of the null curriculum—make evident that engaging the archive in history education is not merely an act of curricular enrichment, but a necessary intervention into the epistemological foundations of how we teach, remember, and understand the past. These frameworks, taken together, allow us to reimagine the history classroom as a critical site of encounter where students do not passively consume dominant national narratives but are instead invited into a

dialogical relationship with the past—one that foregrounds the voices, knowledges, and lived experiences of those historically marginalized or erased.

The archive, traditionally conceived as a neutral space of historical record, is activated as a contested and affective space in which power circulates, and meaning is made. Through a/r/tographical inquiry and a multimodal, creation-driven approach, the archive is transformed into a pedagogical tool that can materialize memory, provoke curiosity, and create the conditions for difficult knowledge to be held and worked through in a supportive and critically engaged classroom context. Such an approach makes space for spectral figures—those minoritized or omitted from official historiography, or ones with power—to be engaged with inquiry, creative intervention, and critical reflection. The theoretical orientation toward hauntology and postmemory reframes archival objects and photographs not as static artefacts, but as relational and affective carriers of unresolved historical tensions, enabling students and educators to confront the afterlives of colonial violence and systemic oppression as they persist in the present.

Critical race theory and intersectionality further equip educators and students with analytical tools to deconstruct the racialized, gendered, and class-based power structures embedded in traditional historical narratives and textbook content. When paired with the pedagogical commitments of critical and anti-oppressive education, these frameworks enable a reframing of history as a field not only of facts but of competing narratives, ideological struggles, and contested memories. This reorientation toward "multidirectional memory" (Rothberg, 2009), underscores the importance of creating constellations of knowledge that reflect the diverse subjectivities and positionalities of students.

The integration of multimodal practices and speculative pedagogies grounded in Black and Indigenous futurities encourages students to move beyond just the recognition of past harms

and toward imagining alternative social and political realities. In doing so, history classrooms become a site not only of remembrance and reckoning, but also of radical possibility. Through tactile engagements with archival materials, augmented reality technologies, and narrative-making dialogues, students are empowered to enact what Audra Simpson and Jodi Byrd have called a "cacophonous curriculum"—one that refuses closure, embraces contradiction, and invites collective re-imaginings of national identity and belonging (Simpson, 2021; Byrd, 2011). The archive, then, is not simply a source of evidence, but a generative space where history education can be transformed into a practice of ethical listening, critical witnessing, and social transformation.

Ultimately, the frameworks assembled in this chapter offer a theoretical and methodological foundation for rethinking history education as a reparative, relational, and future-oriented practice. By engaging students with the ghosts of the past, by activating the null curriculum through aesthetic and inquiry-based interventions, and by foregrounding the voices that have long been relegated to the margins, this project demonstrates the pedagogical urgency of archival engagement in creating classrooms that are not only more inclusive, but also more just. In an era marked by political polarization, historical amnesia, and ongoing settler-colonial violence, the task of teaching history demands not only critical rigor but also experimentation and critical reimaginings through a/r/tography.

Chapter 4: Methods & Methodology

This section outlines the methods and methodologies that I utilize for conducting my research: the visual research method of a/r/tography, that frames not only how I conduct research but also how I put my research into practice through creation; archival research methods in the form of anti-colonial practices; participatory action research methods through co-creation/collaboration with pre-service teacher candidates (BEd students); observational research (Appendix N); curatorial practice as a form of knowledge mobilization; and qualitative data collection in the form of surveys given to the participants (interchangeably called Students) . My collaborative research with students is accordingly broken into four stages of production, self-reflection, iterative re-making, and knowledge mobilization:

1. The AR archive box provides an example of how historical inquiry research can intersect with creation. Student interactions with the box are observed and reflected upon. In this stage, methods used are surveys and observational research.
2. Participants are invited to create their own historical inquiries (adding to the box). The overarching methodology is participatory action research, with observations as the structuring method of data collection.
3. Participants' works is shown in a collaborative exhibition (showing scholars and teachers that students can be experts). Methods used are observational research and surveys.
4. Building iteratively from findings, I then constructed a toolkit for teachers to help them integrate this approach into their own classrooms.

4.1 Visual Research Methods

This section outlines the visual research method called a/r/tography to lay the groundwork for my project by framing what is means to combine making, researching, and

teaching in non-traditional ways. I begin with a background of how I was introduced to a/r/tography to further situate myself in the research and then provide a description of what a/r/tography is, and how it is utilized in the field of research and teaching. Lastly, I outline how I utilize a/r/tography in this project.

My background before beginning the doctoral program was in visual arts, which informs my use of methodological practices from the field of fine arts research. My background in this area allowed me to create new ways of producing meaning in my previous research projects. For example, my undergraduate BFA experience at McMaster University introduced me to the world of conceptual artmaking strategies and introduced me to artists who were active in their communities. It was not until my undergraduate experience that I was exposed to many activist artists such as Ai WeiWei and Shelley Niro, who were not afraid to call out systemic abuse and racism from their respective governments by unearthing difficult and suppressed histories of racial violence. My dissertation project stemmed from my MFA thesis at OCAD University, where I examined Ontario's need to reform its history education curriculum. In 2019, Nick Alexander—a peer from the Digital Futures program—introduced me to augmented reality, which prompted me to think about how multimodality, particularly multimodal aesthetic techniques, can invite audiences to witness a disruption of linear and normative narratives of historical events. Due to the COVID-19 pandemic in 2020, my exhibition was turned into an augmented reality catalogue which allowed anyone who downloaded it to experience the exhibition at home. It was through this experience that I learned about the concept of being an artographer.

A/r/tography, which stands for (a)rtmaking, (r)esearching, and (t)eaching, encompasses myriad fields and practices that are applicable to my research. Australian artist, art theorist, and

educator Graeme Sullivan (2021) states that, “Arts-informed researchers, [Artographers], and the like, have a similar interest in schools, community and culture, but their focus is on developing the practitioner-researcher who is capable of imaginative and insightful inquiry” (p. 20). Art is not confined to logic or a hypothesis, but rather interacts with reality in a way that cannot be described solely with words. Sometimes, visual representations can evoke deep nuances and complex feelings in viewers.

For (a)rtmaking, the first component of the acronym a/r/tography, I created an app prototype that combines archival research with augmented reality as a multimodal way for students to engage with multiple perspectives within Canadian history. Augmented reality (AR) uses digital software and platforms to manipulate our interactions within the physical space without replacing the real world (Kesim & Ozarslan, 2012, p. 297). Examples of AR platforms include social media platforms like Snapchat and Instagram, which allow users to alter the appearance of their images using a selection of filters. A popular example of a filter is the dog filter, which augments the user on the screen by virtually giving the user dog ears and a nose. If the user opens their mouth, the app’s filter responds by depicting a dog’s tongue sticking out (this is called a trigger). Education scholar Mehmet Kesim and new media scholar Yasin Ozarslan (2012) state that “Displaying information by using virtual things that the user cannot directly detect with [their] own senses can enable a person to interact with the real world in ways never before possible” (p. 300). When applied to pedagogy, AR can create layers of information that can be engaged with and discussed in classrooms. AR and other multimodal methods can allow users (in this case students) to connect themselves to bigger societal issues through the juxtapositional tensions that AR affords, something the Ontario Ministry of Education aims to create for their history curricula. This echoes back to Clark and Sears’ (2020) argument on how

the arts invite students to “connect with people and events from the past in ways and at levels that are not available in historical accounts they read in textbooks and other sources or by simply consulting the historical record” (2020, pg. 15). In their 2022 exhibition titled “Piña, Why is the Sky Blue?”, artists Stephanie Comilang and Simon Speiser showed a series of works that combined Virtual Reality (VR) and video narratives as well as geometric drawings to capture “collapsing geographies and temporalities through virtual reality and enlivening ancestral epistemologies,” through a narrative mediated by their fictional artificial intelligence character, Piña (Largo and Pino, 2024). In their essay responding to this artwork, Marissa Largo and Fritz Pino cite Andy M. Connor and Stefan Marks’s (2016) work on creative technologies as a form of decolonizing futures, arguing that:

Through the expressive and imaginative use of digital tools, creative technologies become a mode of research-creation that can take up the causes of decolonization, sustainability, and social innovation. For contemporary artists, creative technologies offer imaginative platforms to imagine and enact ethical engagement to serve social justice goals. (Largo and Pino, 2024, p. 290-291)

While VR and AR are different, my AR project invites students to connect to history through creative means; invoking a sense of curiosity and empathy about events and historical actors that are otherwise stripped of their “human-ness” can allow for a critical palimpsest. (Largo and Pino, 2024; Haraway, 1988; Huyssen, 2003). AR enables users to explore history and historical narratives through the use of overlays, hovers, clicks, colours, symbolism, and more.

For (r)esearch, I conducted historic-archival research on the arrival of the SS Komagata Maru to the Port of Vancouver in 1914—which is commonly labelled the “Komagata Maru Incident” by colonial sites of knowledge production such as the Canadian Encyclopedia—to look

for representations of this event in photographs, objects, and videos. The (t)eaching component of my a/r/tography is presented in two ways:

1. The archive box filled with my augmented and analogue objects are presented to students in the BEd program, where students are free to be curious, explore, and engage with anything in the box. Afterwards, using a maker pedagogy methodology, students are invited to create something that will be put into the box for future engagement.
2. In addition to observation, the archive box is showcased in a public gallery exhibition. With the participants' permission, the exhibition features their artworks to showcase how they applied their research skills into creative forms (i.e., the AR works).

In organizing my collaborative working methods, I turn to the following propositions for research creation put forth by research creation scholar Stephanie Springgay and interdisciplinary scholar Sarah E. Truman (2016) to inform my work:

1. **Speculate:** Research-creation is future event oriented. As a speculative practice, it invents techniques of relation.
2. **Propose enabling constraints:** Enabling constraints are expansive and suggestive. They operate by delimiting process and possibility, although they always include more possibilities than any given event realizes.
3. **Create problems:** Research-creation is a practice that does not seek to describe, explain, or solve problems. Rather, it is an 'event' that creates concepts that problematize. Concepts are not pre-given or known in advance. As an event of problems research-creation brings something new into the world.

4. **Think-in-movement:** The aim of research-creation is not to reflect on something that has passed. Thinking-in-movement is to think in the act; it is a thinking saturated with rhythm and affect.
5. **Note emergences — rework emergences:** Concepts proliferate in research-creation, and with them ethico-political concerns emerge. Once an ethico-political concern emerges, re-work it to see what it can do.
6. **More-than-represent:** Rather than attempting to ‘represent’ or report on research creations, use them to propel further thought, and create something new: new concepts, new ethico-political concerns, new problems (Springgay & Truman, 2016)

This project mobilizes and models these procedures by combining artmaking and research to create an archive box and AR app that allows students to experience and be taught about history through multimodal approaches. However, the project also expands on these methods in many ways. For example, in thinking about #5 and #6, I think about what narratives have been most dominant in contemporary literature about the Komagata Maru. In doing so, the works I presented in the archive trunk included voices from multiple perspectives (government vs. civil servant vs. the passengers) and allowed viewers to critically come to their own realizations about the social issues involved in this event. For the participants, they note any emergences through their reflections and descriptions in the AR catalogue. In addition, the historical inquiry component of the project (the participants researching and creating their AR projects) speculates on how history can intertwine with creation to build tangible modes of knowledge creation.

The constraints I have invited for this project include:

- The historical event(s) must be connected to Canada/Canadian history; and
- The participants and I must use the website-based AR to create their historical inquiry projects.

While it may seem that I did not make artworks in this research, but rather prototypes (preliminary models of an idea), these prototypes create engagement through augmented reality as a form of art and design praxis. In addition, the installation of my work and how it is presented is a form of artmaking as it combines and intertwines installation with tactility to create experiential ways of encountering the past, invoking broader discussions about history education for both students and educators. My work is presented in the form of a travelling art box, in the same vein as artist Michèle Karch-Ackerman's exhibit *Bluebird Dress Factory*, which was exhibited in 2018 at the Campbell House in Toronto. Ackerman's exhibit featured an archive box filled with her textile works that represented the ghostly memories of her grandmother, her heritage, and the forgotten (Campbell House Museum, 2018). These "lessons-in-a-box" offered visitors opportunities to explore, navigate, and provoke further questioning with objects-to-think-with (Turkle, 2007). Tactile objects break down the barrier of intimidation that comes with being introduced to objects that seemingly belong to no one, as well as the limitations of traditional white-cube exhibitions that are solely for looking at, and which rarely engage the viewer's other senses; it is a stereotype that exhibitions are solely for looking. However, multidisciplinary scholar Fiona Candlin (2006) posits that the boundaries of the white cube (exhibition spaces) expand to outside the cube or to the artworks themselves. Referencing psychologist Howard Gardner (1993), Candlin writes that, "touch potentially opens up previously prohibited ways of understanding museum collections" (Candlin, 2006, p. 138). The recent commercial success and popularity of immersive exhibitions speak to a public desire for a

more experiential engagement with artworks that challenge institutional, aesthetic, and physical boundaries.

This section has outlined the role of a/r/tography in framing my research project as a multimodal, anti-colonial intervention in history education. By combining (a)rtmaking, (r)esearching, and (t)eaching, I demonstrate how this method creates space for alternative ways of knowing and engaging with the past (i.e., augmented reality and tactile encounters). Rooted in my own background in visual arts, this approach not only situates me within the research, but also models how students can become active participants in historical inquiry through creative practice. Building on the propositions of Springgay and Truman (2016), the project mobilizes speculative thinking, emergent inquiry, and critical engagement with archival materials to challenge dominant narratives and produce new forms of historical understanding. In the following section, I extend this work by exploring how archival research methods invite reimaginings on whose stories are told, and how those stories are shared.

4.2 Archival Research Methods

This section introduces the ethical, methodological, and conceptual underpinnings of my approach to archival research, particularly as it relates to disrupting colonial narratives embedded in historical documentation and visual culture. Grounded in the work of scholars such as Ariella Aïsha Azoulay and Ann Laura Stoler, I explore how to engage with archives without reproducing the colonial logics that structure them. I begin by outlining the limitations and dangers of conventional archival practices. I then introduce the practice of "prowling" through archives, allowing for pauses and haunted encounters with marginalized histories. I also share how this methodology is extended to my participants, inviting them to engage with archival objects through open-ended inquiry, multimodal storytelling, and augmented reality. In doing so,

this chapter lays the foundation for understanding how archival research, when approached critically and ethically, can support the unlearning of imperialism and foster deeper pedagogical engagements with history.

As an emerging scholar, an important question that guides my research is how I can ensure that I am not perpetuating the same cycles of violence in my archival research and research creation project as the editors of the textbook that I am analyzing. Philosopher Ariella Aïsha Azoulay (2019) in her book, *Potential History: Un-learning Imperialism*, calls on the reader to refuse the stories that the shutter tells (Azoulay, 2019, p. 7). The colonial shutter, Azoulay argues, produces a staged story that normalizes colonial violence and cycles of oppression. Colonial shutters ensure that violent events (and colonialism) remain in the past as “finished.” Going against the shutter’s story means that I reject these cycles, reject what the captions tell me to see in historical photographs, and ensures that these events are not regarded as in the past but rather ongoing legacies of oppression and violence that reverberate in the present. Photographs that appear in the history textbooks I study are usually accompanied by captions that contextualize the image for the reader. These captions are short and therefore do not frame the entirety of the event depicted. Captions remove what the spectre of the past wants to invoke in the present, and at the same time, tells the viewer how to think about the visual text before them. To challenge this phenomenon, I removed these captions from my work and instead direct the viewer to analyze the photograph unencumbered by written text and encourage them to ask questions about the photograph.

Expanding upon alternative orientations of engagement such as this, I also draw from anthropologist Ann Laura Stoler (2016) who cites Michel De Certeau’s (1974) use of the term *prowl* to describe a way of working in the colonial archive (p. 268), and I similarly extend this

practice to students of culture to reimagine new ways of receiving situated knowledge. Prowling acknowledges that history and archived documents are a constant cycle in the present; that they do not remain in the past as a stagnant piece of paper or artefact. Prowling acknowledges that even the most bureaucratic-looking piece paper may tell a story of some kind.

Building from *prowling* as a reorientation towards situated knowledges, this project also aims to have students pause and analyze what is in front of them as opposed to spoon-feeding them information, only for the abstracted, fragmented, and text-bound representational content to be regurgitated for the purposes of assessment before eventually being forgotten. Stoler suggests that students should “pause at, rather than bypass, [the archives’] conventions, those practices that make up its unspoken order of rubric and reference” (p. 273). By pausing, students can take in the overall essence of the photograph and listen to what the ghosts of the past want to convey. The earlier example of the photograph of the all-Black Canadian battalion from the First World War is not just a composite of all the soldiers; rather, it voices the experiences of many racialized and marginalized groups that fought for equality and the right to enlist to the military. The presence of the photograph conveys feelings of triumph as Black subjects in Canada won recognition from the nation state while nullifying the continued forms of legal, political, and social inequality lying beyond the caption and the wider narrative frame. By removing captions (and creating new ones), history classrooms and curricula can encourage students to imagine Azoulay’s “potential history” by imagining how they might “achieve different goals linked to confronting and countering the ongoing legacies of colonial violence” (Pedri-Spade, 2016, p. 47).

My method for conducting archival research included pausing at and analyzing the collections in January 2023; combing through national and provincial archives such as the

Library and Archives Canada, Ontario Archives, the Canadian War Museum, and the Canadian Sikh Heritage archives. What I look for are the ghosts (Tuck, 2013; Gordon, 2008) who have shown acts of resistance, resiliency, anger, fear, sadness, hate, and hope (Hirsch, 2019). I look for ghosts, because they tell stories of what happened in those historical events; things that we (students, historians, researchers) generally do not know. These are not photographs or objects that are most featured in canonical history texts. They are objects that are usually lost in the shuffle of the state archive (often in boxes lumped with other miscellaneous objects or mislabelled as a different fond or collection);¹³ not always shown but sometimes made visible. They may be objects that have ulterior meanings or insights, such as suffragette posters that advocated for women's rights; however, the flip side to this narrative is that these rights were solely for white women. As the researcher, I asked the archival ghosts questions such as: *Who are you? Where are you? What is this object about? What did you witness? Would you like to make known to the public?* Then, if permitted by the archive, I made reproductions of the object—photocopy, photograph the object, drawing, tracing (Azoulay, 2020)—that would be put into the archive box. A detailed codex was made that would tell students what this object is about based on what the ghost told me and my own investigations. The augmented reality component provides an added layer of (hi)story that students can engage with.

This section details archival methodologies rooted in refusal, critical engagement, and ethical listening. By drawing on Azoulay's concept of the *colonial shutter* and Stoler's invitation to "prowl" the archive, I challenge the sanitized narratives perpetuated by colonial institutions and instead foreground the spectres and silences that haunt official histories. This sub-chapter

¹³ In *Mass Capture* by Lily Cho (2021), her research into the personal lives of Chinese migrants to Canada started with an accidental archival encounter: finding microfilms of the migrants in the shuffle of the Minister of Public Works collection, labelled as CI-9s and CI-5s.

demonstrates how archival photographs and objects can serve as entry points for deeper inquiry when removed from prescriptive captions and recontextualized through multimodal and creative engagements like a/r/tography. As I move forward in this project, these archival encounters—both my own and those facilitated alongside the participants—become integral to rethinking how knowledge is produced, circulated, and remembered. This work not only disrupts dominant historical narratives, but also offers a pedagogical model that foregrounds curiosity, relational ethics, and historical accountability. The following section will outline observational methods that were used when conducting the study.

4.3 Observational Documentation Methods for the Exhibition and Study

As part of the study, I also used observation in the form of field notes and photography to document participants' reactions, conversations, and interactions, as well as document the reactions from the public exhibition. The exhibition is comprised of my works featured in the archive box, alongside works made by the participants in response to what they have learned from engaging with the box, as well as speculative proposals for what they would like to contribute to the box in the future. The exhibition at Eleanor Winters Art Gallery invited students to assess what they had learned, gathered, and questioned, and to apply their archival research in creative ways (including, but not limited to, poetry, art, writing, and AR). Students were invited to create through the method of prowling the archive for alternative histories. Philosopher Maxine Greene (1995) describes these explorations as a form of “recapturing,” positioning students as:

questioners, as meaning makers, as persons engaged in constructing and reconstructing realities with those around us...[This method] may communicate to students the notion

that reality is multiple perspectives and that the construction of it is never complete, that there is always more (Cho, 2021, pp. 130-131).

The exhibition part of the project aimed to engage the public with this learning. In 2019, I collaborated on an exhibition titled *COR3* with my fellow MFA colleagues, Andrew Kostjuk and Laurel McLeod, which questioned what *being* means to each of our practices. During the opening reception, I walked around the exhibition space, observing as people navigated the augmented reality components of my work, and looked at the installation works of my faux archive (*The Missing Fonds* series, 2018-2019). Some visitors asked questions about the augmentation of my work, while others looked distraught at not knowing about certain historical events. Some voiced their lived experiences in schools and commented on how much national propaganda was present in their history education. I find value in observing visitors to the exhibition; the act of strolling and observing and *then* teaching, rather than intervening and teaching immediately before visitors have had a chance to engage with the installations independently.

For the study, I use field notes as a form of observation. While voice recording may be a more efficient choice for this study, I decided on written field notes for the purpose of anonymity and comfortability for my participants. My participants agreed to this study knowing that there would be no virtual recording of their voices. For photographic documentation, only one participant wanted their face blurred or blocked out. Others were comfortable with their faces shown. As part of the Research Ethics application, I included a guideline on the scope of my observations:

- How are students engaging with the trunk? Do they seem curious?
- Do they ask questions? What questions are they asking?

- Do they make connections to current social justice issues?
- Do the students seem to understand and navigate the app easily? If not, why?

As part of my a/r/tography practice, I utilized dialogue to engage with both the participants and gallery visitors about what they were seeing or experiencing with the works. In later chapters, I describe and analyze the dialogues and observations made throughout the study. In the exhibition space, I perform a different role other than that of a researcher, such as gallery monitor or docent. For documentation, I used a camera to document moments of curiosity and engagement with the works. A small, discreet notebook and pencil allowed me to do this without interfering with the participants' and gallery visitors' experience of the works.

This section has outlined the role of observation, documentation, and exhibition within my a/r/tographic research, emphasizing how field notes, photography, and public engagement serve as critical components of the study. By detailing how participants interact with the archive box and exhibition space (through curiosity, questioning, and creative response), I highlight the pedagogical significance of embodied, multimodal encounters with history. Drawing on Maxine Greene's concept of "recapturing," I frame these moments not as fixed outcomes, but as ongoing, dynamic acts of meaning and making. The exhibition functions not only as a site of learning, but as a site for encounters where both participants and visitors navigate histories in new, affective, and often unsettling ways. In the next section, I turn to co-creation and participatory action research (PAR) as an additional element of the project.

4.4 Co-Creating an Archive and Exhibition through Participatory Action Research

In this section, I explore participatory action research (PAR) as a methodological framework that supports collaborative, ethical, and justice-oriented inquiry with students. I utilize scholars such as Gubrium and Harper's (2013) understanding of PAR as a practice that

values co-creation and resists extractive research methods. Throughout the chapter, I reflect on how I sought to operationalize transparency, shared authority, and community engagement in my own research practices. I also engage with the tensions and complexities of co-research, referencing works by Brushwood Rose (2019), Luka (2018), and the Making Sense of Movements project (Nixon et al., 2022) to situate my approach within a broader landscape of arts-based, participatory, and decolonial research. Ultimately, this chapter argues that PAR, in conjunction with a/r/tography, not only invites students to act as co-researchers and media makers but also challenges dominant narratives through silenced, difficult, and traumatic histories.

Participatory action research is a methodology that prioritizes collaboration and co-constructive discussion. Since my research orientation with students in the context of history education resists the banking method of education and knowledge transfer (Freire, 1968), I use PAR as a framework to invite students to engage authentically with what they learn or researched, co-constructing what might emerge through our individual and collective exploration. I first became acquainted with this method through medical anthropology scholar Aline Gubrium and cultural anthropology scholar Krista Harper (2013), who state that “participatory action research consist[s] of research participants...positioned as producers of veritable social research data that, in turn, can be repurposed as material for community mobilization and advocacy” (Gubrium & Harper, 2013, p. 13). They are critical of the “extractive” tendencies (p. 31) that researchers have deployed in traditional anthropology and instead move to community-based participatory research as a proposed alternative, though community-based participatory research can also mask power imbalances and outputs that favor the academic research. As a researcher, I am mindful that I must refrain from perpetuating

colonial methods and cycles through extractive means (Springgay & Truman, 2019; Tuck & Wang, 2012). I aim to bring transparency about each step of the research process to students and educators while working with them. Transparency in my research included distributing consent forms, sharing detailed agendas about what I planned for each classroom visit, and encouraged collaborative decision-making for curating the exhibition.

To ensure that I support marginalized communities to lead and advance their own purposes, I refer to arts-based education scholar Chloë Brushwood Rose (2019), who uses resistance as a method “for negotiating the ambivalent experience of coming to know the self and the world, and of representing that experience with and for others” (2019, pg. 858). As a researcher, Brushwood Rose’s contributions allow me to understand that mixed reactions to my work will arise among visitors and students. Instead of overlooking the contradictions or negative responses to the research, I must be willing to engage in conversations with participants and reflect on my research practices throughout the process.

Taking a collaborative approach to a/r/tography, I conducted a co-constructed digital archiving and exhibition making process, which allows for open-ended engagement with history, storytelling, and digital literacy skills (Gubrium & Harper, 2016). Culture and media scholar and member of NiS+TS research group Mary Elizabeth Luka (2018) collaboratively worked on multiple projects in Nova Scotia surrounding the Halifax Explosion of 1917.¹⁴ Their work facilitates collaboration between users through digital app-based participation, and human facilitators lead performances, walks, and more. Luka fostered participation by offering user experiences and a chance to share stories from the past, that the research team met with care (p.

¹⁴ The SS Imo (carrying relief resources for Belgians) and the SS Mont-Blanc (carrying French munitions) collided in the city’s port, resulting in a massive and devastating explosion and tsunami from the shockwaves (Kernaghan & Foot, 2021)

43). By co-creating and co-collaborating with communities, researchers can “provide a counter-narrative to the dominant, often neoliberal, capitalist, and settler-colonialist storytelling structured into mapping histories” (p. 46).

A recent example of co-creation through PAR methods, advancing the aims of a/r/tography, can be seen with Jade Nixon, Eve Tuck, and Sefanit Habtom’s (2022) multi-year project, *Making Sense of Movements* (MSOM). Using the method of critical fabulation (Hartman, 2008, 2019) and PhotoVoice (Wang, 1999), MSOM invited youth in Toronto to become co-researchers and explore and respond to their concerns about how schools responded (or failed to respond) after a racist incident in school (Nixon et al., 2022, p. 135). By having students become researchers in creative ways, the agents of change (i.e., policymakers) can no longer ignore the ruptures within the infrastructures of the institution and instead must “attend to irreversible harm in order to imagine other kinds of responses that do not expect redress” (p. 157). Similarly, PAR allows this dissertation to have the voices of students who have participated in this study be heard, recognizing them as co-researchers. Since the research is centred on students becoming researchers and media producers themselves when given the chance, it is integral to include the students’ voices as they share their insights, opinions, and research through research creation.

This section has established participatory action research (PAR) as a central methodology in the project, highlighting its potential to disrupt extractive research practices and foster authentic collaboration with students. Drawing on scholars such as Gubrium, Harper, and Tuck, I have outlined the ethical imperatives and methodological commitments required to avoid replicating colonial or hierarchical frameworks within education and research. Through a/r/tography and co-creative practices, students are positioned not as passive recipients of

knowledge, but as active participants and co-researchers, whose insights and critiques inform the direction of the work. This section sets the stage for the following sections, where I discuss my data collection through surveys and what they serve for the overall dissertation.

4.5 Data Collection through Surveys

In thinking about how best to collect “data”, I think about what method is the least intimidating for participants. This section will provide an outline to the surveys that the participants filled out. This section also provides context for how I disseminated the qualitative data.

Surveys have become a common instrument in our everyday lives as consumers (through company surveys, experience surveys, etc.). I did not want to record my participants in this way, as I believe they would not be comfortable having their voices recorded and stored, which is why I chose surveys to remove that element of intimidation often associated with a “study,” and use prompting questions to invite an unfiltered way of stating opinions and describing experiences during the co-construction process. Surveys were distributed in both the classroom and exhibition settings to collect qualitative data about how learners and viewers engage with the pedagogical material. The aim for this survey was to collect opinions, comments, and data on user experience with the app prototype as well as how users interacted with objects more generally. The surveys were anonymous and in two parts, to allow students to freely express how they felt about the experience. The first set of questions before students’ engagement with the archive box included:

Survey 1: Before students’ engagement with the exhibition/prototype:

- How confident do you feel about your knowledge of Canadian history?
- How confident do you feel about your knowledge in artmaking?

- Which parts of history would you be interested to learn more about? Why?
- How would you describe your past experiences of using technology for learning?
- What was your history education experience like?
- Why did you choose history as your teachable? (if applicable)

Survey 2: Reflection questions after students have engaged with the exhibition/prototype:

- What parts of the app did you find easy to navigate? What parts of the app were difficult to navigate and why?
- How did you feel overall about your experience with the pseudo-archive box?
- What is one new thing you learned from your engagement with the app?
- If you did not like the app, why?
- If you liked the app, why?
- How did you feel about engaging history through a creative way?

Survey 3: After the workshop showing participants how to search in the online archives and how to use the AR software:

- How did you feel about the workshop?

Survey 4: After collaborating on the art book (catalogue)

- How did you feel overall about contributing to an art book (catalogue)?
- How has the overall experience shaped your understanding on social justice issues/Canadian history?
- What questions do you still have about history?
- How do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?

An additional method I used was to facilitate discussion-based conversations with the participants. I facilitated dialogue that will engage students to analyze the archival artefact. To not put pressure on the participants, I then take notes about the conversation. In my experience as a Teaching Assistant, I have found that students are not willing to engage if being recorded, thus anonymized notetaking was used as an alternative. Discussions allow for free flowing of ideas and opinions. These discussions centre around a discursive approach to teaching and learning that allow students to create relationships that will “engage in open critical dialogue with one another ... [allow them to] debate and discuss without fear of emotional collapse, [and] hear and know one another in the differences and complexities of our experience[s]” (hooks, 2014, p. 110). In addition, strategies in how they position themselves in Canada help racialized and marginalized students feel a greater sense of agency.

While this section has provided context to my data instruments, the next section will conclude on how all the methods and methodological frameworks informs the study.

4.6 Concluding Thoughts

The methods presented in this chapter provide context to how the study was conducted in this dissertation. Central to this methodological framework is a commitment to ethically engaging with the archive and the classroom as dynamic, contested spaces, where history is not merely delivered but reimagined, questioned, and co-constructed.

A/r/tography, as a visual and embodied research methodology, enables a fluid entanglement between (a)rtmaking, (t)eaching, and (r)esearching that resists the fixity and authority of traditional educational research. Rather than separating the researcher from participant, or process from product, a/r/tography situates knowledge as emergent through doing, making, and reflecting. This multimodal approach also accommodates diverse epistemologies

and ways of knowing, allowing students and participants to articulate historical understandings through tactile engagement, digital augmentation, and creative expression. In this way, these methods become part of a reflective and critical outcome.

Archival research within this project is grounded in anti-colonial refusal. Informed by scholars like Ariella Aïsha Azoulay and Ann Laura Stoler, the project engages in archival praxis that resists the closure and containment often enacted by official narratives. The archival method is not about retrieving a static past but about inhabiting its hauntings and silences—what Gordon (1997) and Tuck & Ree (2013) identify as ghostly presences. Pausing, prowling, and listening become methodological moves that make space for spectral voices and occluded knowledges, particularly those of racialized and marginalized communities. This refusal of the colonial shutter is extended to the student participants, who are invited to engage with archival objects not as passive consumers, but as interpreters and meaning-makers.

Participatory Action Research (PAR) supports the co-creative dimension of this project, emphasizing transparency, collaboration, and experimental research practices. The methodology privileges the voices of the BEd students and positions them as co-researchers. Their participation in the design of historical inquiries, the augmentation of archival material, and the curation of a public exhibition reflects a methodological commitment to shared authority and knowledge mobilization beyond academic spaces. In this sense, method becomes a pedagogical and political act.

Observation and survey methods are employed not to evaluate success in the traditional sense but to trace the affective, intellectual, and social resonances of the project. Field notes and qualitative surveys capture how students and viewers interact with the archive box and AR

components, what questions they ask, and how they articulate their understanding of history, memory, and justice.

Together, these methods enact the project's broader commitment to a reparative and critical history education. They are designed not simply to transmit content, but to activate critical inquiry, ethical engagement, and creative responses to the archive. By foregrounding curiosity, relationality, and creation, this methodological constellation offers a generative framework for teaching and learning history that centres voices from the margins, unsettles dominant narratives, and invites students to see themselves as critical agents of historical interpretation and social change.

In the next chapter, I explore how these methodological choices shaped the project's outcomes and how participants engaged with these tools to develop critical, creative, and multimodal responses to historical narratives and archival artefacts.

Chapter 5: Creating the Archive Box and Web AR App

In mid-January 2023, I journeyed to Ottawa to look at historical objects (photographs, correspondences, and text) that were not digitized and available through the Library and Archives Canada (LAC)'s website. These were objects I identified that could be used for the app prototype I hope to develop as the outcome of this research, and in the creation of the archive box to be used with students. The aim of this archival and research creation phase was to allow students to engage with tangible and digital (hi)stories that would raise further discussions on social justice issues. In my archival research, I employ the methodology of *prowling* (De Certeau, 1974; Stoler, 2002) which includes pausing and analyzing objects and asking myself: *who is being represented in this object? What is the person(s) trying to say? Who is missing? Why? What happened in this object?* Like the auto-ethnographic work of photography theorist Tina Campt, this chapter is written in first-person perspective as I take the reader on a journey of combining research and creation. By using first person narration, the reader can experience my visit to the archives, my inner thoughts, feelings, and inquiry while going through the boxes and microfilms. By describing my experience doing research in the archives, I demystify the idea that the archives are this unattainable place that only anthropologists and historians can access. Pedagogically, using the first-person narrative subverts the idea that writing about the archive needs to be in "academic language." In other words, it rejects "ivory-tower" expectations of writing in the academy in which there is an unspoken rule that we (scholars and thinkers) must use third-person perspective devoid of any sense of personality, identity, a voice.

5.1 Visiting the Archive: A/r/tography and Research

The LAC is a national archive that houses and preserves objects of (hi)story relevant to the dominant narrative about the Canadian past, including rare books and artworks, letters, photographs, and diaries. Situated in Ottawa, the LAC is a combination of its predecessors—The National Library of Canada and The National Archives of Canada—and was initiated by National Librarian Roch Carrier and National Archivist Ian E. Wilson: Wilson later assumed the position of first Librarian and Archivist of Canada in July 2004 after the merge of the two institutions in May of 2004 (Snyder, 2015). Currently, the LAC has four locations in Ottawa, Halifax, Winnipeg, and Vancouver.

Before the visit, I perused the website's repository to gather a list of photographs, texts, and correspondence related to the so-called Komagata Maru incident of 1914. I was looking for faces and voices of the spectres of the SS Komagata Maru and hoped to piece together narratives from, and perspectives on, this immigration case and why it was handled the way it was, and what decisions were made by those in power. I requested three microfilms: a private record on Baba Gurdit Singh's book on his point of view of the Komagata Maru (MG55/30-No159, microfilm K-79); PM Robert Borden's collection of correspondences (MG26-H, Volume number: 40, microfilm C-4232); and Immigration Central Headquarters telegrams (R11476-545-7-E, Volume number: 62, microfilm C-10669). In addition, I requested textual materials such as The Commission to Investigate Hindu Claims Following Refusal of Immigration Officials to Allow over 300 Hindus Aboard the S.S. Komagata Maru to Land at Vancouver (OLC-1007527571) and Correspondences from R.J Corby to Allan Hughes to request photographs of

the Komagata Maru (R11476-545-7-E, Volume number: 62).¹⁵ Lastly, I requested photographs such as the David Millar 1970-007 fonds (3531258, box 5755), and two boxes of the HH Stevens 1974-004 fonds (R4681-1-X-E, boxes PF 0023 and SC 0529). I requested these items as for the majority, they are items that are not often seen in mainstream media's representation of the Komagata Maru (the usual depiction of the ship's profile or the photograph of the passengers); these are the items typically not in view (i.e., textual documents). To be able to view history rather than just 'see' it through other sources allows me to feel the presence of the passengers, the Immigration Officers, and any other characters who may or may not make themselves known. I employ Camp's (2012) view of the treatment of historical objects as not just objects, rather as "statements that express how ordinary individuals envisioned their sense of self, their subjectivity, and their social status" (Camp, 2012, p. 7). In other words, the archive is alive, and I am having a conversation with the spectres attached to the objects, feeling their emotions, and hearing their voices. In choosing archival objects as my teaching tools, I ask students to engage in a multi-sensory and multimodal encounter with the past. Usually, textbooks rely on textual narratives with some visual aides to create a linear history, whereas archival artefacts, such as photographs, ask students to rely on visual analysis alongside research or lecture to come to their inquiries about history. In turn, students gain critical research skills outlined through the historical thinking frameworks in curriculum documents.

5.1.1 Day 1 – Getting Acquainted with the Archive

On my first visit to the archive, I immediately noticed the sterile-looking building juxtaposed with a sculpture installed outside the building on concrete slabs by Lea Vivot called

¹⁵ This material was not available for view as the LAC was moving parts of its archive to their new preservation facility and my request for this item would not be available until March 13-17. While it would have been interesting to see this object, I was under a timeline that I was adhering to.

The Secret Bench of Knowledge (1994) featuring a bronze statue of a couple, sitting on a bench, with one of the figures is holding a bright red apple.



Figure 2 Library and Archives building front (left), Lea Vivot sculpture (right)

The bench features hundreds of messages on the importance of reading from school children and writers (Vivot, 2020). Funnily, the artist decided to place this sculpture without gaining permission from the LAC. According to the LAC, the artist removed the piece, but its disappearance was met with public outcry by residents who already loved the artwork. Philanthropist Eugene Boccia donated a copy of the sculpture to the LAC where it is now permanently on display (Library and Archives Canada, 2017). Once inside the building, however, a visitor is squarely interpellated as a subject of state authority by the LAC's rituals of access. After registering for a reader card each time I visited the archives, I was asked to sign in with the lobby's security with my full name, access card number, and my driver's license, and then put my belongings into a clear bag or in a locker before starting my archival journey in the Special Collections room on the third floor. The LAC had clearly indicated their power dynamics

and need for control in these short interactions and established rituals. Visitors cannot have their personal belongings nor bags with them, which means I would need to bring only what was absolutely necessary. In the frosted bag I carried my laptop, charger, glasses, phone, access card, tripod, notebook and pencil, while in the locker, I left behind my laptop bag which had things like my wallet, a set of keys, and a container of Gravol/Tylenol/Midol mix (knowing archives can cause headaches), and my jacket, gloves, hat, and mittens. Each time, I began my visit with the archives knowing my identity was being recorded and monitored. My name was recorded again when going into the different rooms on the floor, as though the archive's sensors were monitoring my movements. Though the records the LAC contains are public, I cannot retrieve these materials myself; rather, someone retrieves them for me, almost as if I am stuck in the area I am situated in.

After greeting the security person and heading down to the room, I was greeted again by another front desk person, where I promptly signed in and was told to pick a table. The same front desk person then left the room through the large double doors and after a few minutes wheeled in a cart with the boxes and a folder I had requested. I started going through the boxes that the research librarians had pulled in advance of my visit, searching for photographs of the so-called Komagata Maru event. I started with Box #SC529 which was labelled *Gordon, Robert S., 1974-005*, which contained multiple photographs of different events. Robert S. Gordon was a senior advisor to Assistant Dominion Archivist at the Public Archives of Canada. After his retirement, he opened The Autograph Gallery which specialized in selling and appraising historical documents and objects. Gordon created and implemented the Systematic National Acquisition Program (SNAP) at the National Archives of Canada, which aided in the documentation and control of private textual records. SNAP is still used to this day at the Library

and Archives Canada (Library and Archives Canada, 2023b). While most of the box's contents were unusable for my project due to the time frame (my historical scope is from April-September 1914) or who was in the photograph, there was one photograph that made itself known to me. The photograph is of BC Members of the Canadian House of Commons taken in 1913; roughly a year before the SS Komagata Maru docked in Vancouver.



Figure 3 The British Columbia Members for the Canadian House of Commons/ Henry Herbert Stevens fonds/ LAC/200496

The photograph (tightly protected by a clear plastic sleeve) features a black and white group portrait of the politicians (part of the HH Stevens fond). Starting from the top left was Herbert Sylvester Clements, who was the Conservative MP for the Comox-Atlin constituency (Library of Parliament, 2023a). Next to him and looking away from the camera is Henry Herbert

Stevens, who was the Conservative MP for the Vancouver City constituency.¹⁶ He was also one of the main contributors to growing anti-Asian immigration sentiments amongst white settler publics during the historical event. He—in present day discourse—is a white supremacist who envisioned a Canada of white-only immigrants mainly from Britain (Boyko, 2013). Next to him and looking away is James Davis Taylor who was the MP for the New Westminster constituency (Library of Parliament, 2023b). Next to him is MP Francis Henry Shepherd for the Nanaimo constituency (Library of Parliament, 2023c). In the front row starting on the left is Robert Francis Green who was acclaimed to the Kootenay constituency (Library of Parliament, 2023d). Next to him is Martin Burrell who was MP for the Yale-Cariboo constituency as well as appointed Minister of Agriculture and Colonization (Library of Parliament, 2023e). Lastly, next to him is George Henry Barnard who was MP for the Victoria City constituency (Library of Parliament, 2023f). I thought that this photograph could be used in the development of the augmented reality app used by students, as it gave a face to some of the people who aided in the deportation of the Komagata Maru passengers and made their stay at the port unbearable.

To be able to see dominant white colonizers in the archive and have this opportunity to critically analyze them and their words in the contemporary moment holds them accountable to their white supremacist ideologies. Here I invoke the work of bell hooks (1986), using the method of “talking back” as way to confront colonialism, oppression, and exploitation (p. 128). By naming and shaming, I am talking back as a “gesture of defiance that heals, that makes new life, and new growth possible...[it is an] expressions of moving from object to subject, that is the liberated voice” (hooks 1986, p. 128). By pairing archival photographs with visual cues, I rewrite

¹⁶ I refuse to label him as The Hon. Henry Herbert Stevens, as he and the rest of the MPs in this photograph (some with the title of Honourable) contributed to growing anti-immigration rhetoric and violence in B.C in the early 1900s. There is nothing “honourable” in provoking discrimination and violence.

history to not be told from the perspective of the powerful white Anglo-Saxon men but, rather, from the perspective of the voiceless and marginalized.

After looking through this box, I went through another box labelled *Millar, David, 1970-007*, which contained many photographs sectioned and labelled by their subjects such as “Ukrainian family album,” “Asiatic Immigrants”, etc.



Figure 4 David Millar fonds / Library and Archives Canada / R11968-0-0-E

David F. Millar was a film and video maker for the National Film Board, employed between 1960-1969. His main interest was in oral history (Library and Archives Canada, 2023a). I found a collection of photographs relating to the Komagata Maru in the box's sub-section labelled "Komagata Maru-Rainbow", which refers to the two ships chartered by Singh which arrived in the Vancouver Harbour on May 23, 1914. Removing that section from its box, I started by setting my intentions. I believe that the archive and the objects that the archives house are alive, and since I am a guest, I must properly introduce myself to the passengers of the SS Komagata Maru. In my Indo-Fijian culture, we call this *sammaan deo* which translates to "give respect." Usually this is followed with a greeting while having my palms together almost in prayer. Since I am a guest, I must ensure that I am speaking with the proper greeting. By doing this gesture, I am regarding the historical objects as human; thus, when I learn from these objects, I am hearing the people and their stories, instead of viewing them as data. In my broken Fijian-Hindi, I said:

Ram Ram!

Greetings!

Mere nam hai Sheetal Prasad. Hum university student hai par York University.

My name is Sheetal Prasad. I am a university student at York University.

Aaj hai January 11, 2023, aur yahn zindagi, hum sakai school ajaad chalaye aur ke high honours daine hai.

Today is January 11, 2023, and in this lifetime, I can go to school freely and receive high honours.¹⁷

Mera palwaar Fiji people hai, lekin mera pitar hai Hindustani, aur me Canada borne se.

¹⁷ It is a common phrase in Fiji-Hindi to say "high honours" when referring to higher education or education that is considered prestigious.

My family is Fijian, but my ancestors are Indian, and I was born in Canada.

Hum mantha sunnai aap lone story. Batao hum kaunchi bhais ke yeh ship.

I am here to hear your story. Tell me what happened on this ship.

Agar se ape darar hai ghuumao aur fir larreh kar ajaadi.

It must have been frightening to travel and then fight for freedom.

Khaiski appan koshishein, Canada immigration policy change karay hai, jisme kaise mera pawal rahaa sake aae hai.

Because of your efforts, Canada later changed their immigration policies, which is how my family was able to come here.

Lage asaan nahi hai ki hum batao kuch. Aap zaorat nahin batao mein ki dekhao mein sab kuch.

It is no pressure to tell me anything. You do not need to tell me or show me everything.

Humar chahatein hai ki parro aur ke future students tumlone sikhley. So, Aap lone story batao. Hum parrho suru hai.

My intention is to learn and have future students learn from you. So, tell me your story.

I am starting my studies.¹⁸

After setting my intentions and asking for consent, I touched the objects and brought my hands to my heart. We do this as a sign of not only respect and thanks, but also to receive blessings. Since the passengers are older than me, they are considered my elders (with the honorific of “uncle”). Since they allowed me to learn from them for this project, I have received blessings for this project to continue.

¹⁸ Another common phrase is to say “I am starting my studies” to refer to starting a school task or in this case, starting my research.

Having completed this greeting, I sifted through the 40-something photographs, one-by-one, getting a feel for the passengers' presence and the other figures shown. I had two piles—"not to use" and "to be used"—and sifted through the photographs again and organized them based on two factors: *Do the people in the photograph want to be seen? And will this photograph aid students in conducting historical inquiry analysis?* Photographs that I decided not to use were photographs that were either blurry or duplicates. Out of the 40-something photographs, I narrowed it down to 21 photographs. These included:

WS424—Immigration Officers-Komagata Maru

WS431—Komagata Maru

WS434—Komagata Maru

WS422—Komagata Maru

WS427—Komagata Maru

WS423—Immigration Officers (Insp. Reid), HH Stevens and reporters "Komagata Maru"

WS437—Komagata Maru and HMCS Rainbow in bg Vancouver City, 1914

WS441—Sikhs in turbans abroad Komagata Maru

WS450—Komagata Maru

WS435—Komagata Maru

WS447—Speaking to Sikhs

WS433—untitled (newspaper clipping)

WS432—Komagata Maru

WS430—Vancouver Harbour, "Komagata Maru"

WS444—"Komagata Maru"

WS426—Insp. Reid, HH Stevens "Komagata Maru"

WS436—Troops

WS425—Immigration Officers + Troops abroad HMCS Rainbow

WS451—sightseers, Vancouver Harbour

WS439—Komagata Maru seen from tug “Sea Lion”. Unsuccessful attempt was made to tow “Komagata Maru” to sea

WS448—Army men and signallers in civies abroad “Sea Lion”

The selection process showed me how often illegible photographs—such as blurry images, or duplicates—become part of the archive’s collections. Like Stoler (2008), I am subverting the “colonial common sense” logic of the imperial archive by focusing on the unwritten aspects, revealing the archive as an account of “uncertainty and doubt in how people imagined they could and might make the rubrics of rule correspond to a changing imperial world” (Stoler, 2008, p. 4). It is important to pay attention to what is unwritten in the colonial archive as it is the unwritten stories that end up telling us a lot. It is the unwritten that we see and hear pockets of resistance against the colonial-settler narratives.

5.1.2 Day 2 – Narrowing Down the Photographs

Day two of the archive visit consisted of the same routine of signing in and bagging up my personal items in the LAC’s branded frosted bag. On this day, I headed back to the Special Collections room and went through the David Millar fonds again. On this day, I sifted through the photographs again to narrow down a set of objects that would generate analysis (looking for key figures and themes) by the students as well as set a narrative for the archive box. Again, I removed duplicates and condensed the collection to 5 photographs:

WS424—Immigration Officers-Komagata Maru *featured Inspector Reid who oversaw overseeing the Komagata Maru case*

WS423—Immigration Officers (Insp. Reid), HH Stevens and reporters “Komagata Maru”

would be used to discuss with students about media source bias

WS441—Sikhs in turbans abroad Komagata Maru *would be used for additional information with the ship manifest*

WS436—Troops *would be used for discussion on militaristic force against immigrations*

(NO CODE)—Portrait of BC MPs *would be used to discuss language and power*

I chose these photographs because within them, there is a kinship between photography and violence (Cole, 2019). I align with David L. Eng’s use of the word kinship as moving “beyond identity-based frameworks in order to emphasize the epistemological coordinates of how we are thought— in order to focus on the politics and problems of racial knowledge” (Eng, 2010, p. 58). The passengers also built a sense of kinship through collective activism, which was fractured by the Immigration Officers offering a false sense of hope in turn for intelligence relevant to the Canadian settler state. These photographs evoke feelings of hatred, fear, and hope. And having students analyze these photographs would allow them to piece together a critical narrative about the Komagata Maru as well as make connections with their current experiences.

After narrowing down which photographs I wanted to respond to, I made my way to the other side of the floor to the microform consultation room.



Figure 5 Microfilm Room / Library and Archives Canada / January 12, 2023

The first microfilm I looked at was from the *Sir Robert Borden* fonds which consist of 1177 images of his correspondence throughout the years (Library and Archives Canada, 2023d). Robert Borden was the former Prime Minister of Canada and leader of the Conservative Party from 1911-1920 (Brown, 2015). His fond consisted of all correspondences (personal and professional) from when he was Prime Minister. While he was not physically present during my archival research, he was responsible for upholding former PM Wilfred Laurier's continuous journey law (est. 1908) which excluded South Asian immigration after the Anti-Asian Riots in

Vancouver, B.C. As I was sifting through the correspondence, a record labelled *Images 21-43* was of interest to me. It is titled “Minutes of a Public Meeting Held in Dominion Hall, Vancouver, British Columbia, on Tuesday Evening, June 23, 1914”. In images 22-24, MP Henry H. (HH) Stevens spoke out against the immigration of Asiatics to Canada unless they are “capable of being assimilated and absorbed by the people of the country” (Library and Archives Canada, 2023d, pg. 22-24). Henry H. Stevens was an MP for R.B. Bennett’s Conservative Cabinet. He believed that the “Hindoos” [sic] would be a detriment to not only British Columbia, but also to the rest of Canada. He rallied his constituency by citing laws that would prevent the passengers from immigrating and ended his very lengthy speech with this hypocrisy:

It is not a case of racial pride. It is a case of actual social and economic conditions which it is impossible to maintain with two systems of living in our country which cannot be successfully assimilated, and as far as I am concerned, I intend to stand absolutely on all occasions on this one great principle of a white country and a white British Columbia. (Library and Archives Canada, 2023d, p. 15)

It would be interesting to add this speech in the archive box to show students how decisions are made and how different voices are heard—or silenced—in government meetings in Canadian history. In addition, it may provoke wider discussions about the spread of, and contestation against, white supremacist thinking and ideologies in different institutional systems. This would be important for students to understand and identify how white supremacy is not all about the KKK or other nameable expressions of racism, but rather a set of ideological systems and norms, as well as interwoven social/institutional practices that can be overt and covert within our society. Education scholars Leslie Ekpe and Whitney N. Roach (2023) believe it is important to have these discussions to help students:

recognize their intrinsic worth while simultaneously acknowledging and understanding how societal notions of their worth manifest throughout their lives. Inclusive educators should acknowledge and appreciate learners' many identities, experiences, and backgrounds and endeavor to establish an environment where students are both challenged and heard. (Ekpe & Roach, 2023, p. 7)

By having students discuss systemic oppressions and ideologies, teachers and artists working in the classroom can encourage them to become civically aware about their understanding of civic belonging and how the politics of belonging and citizenship are created, spread, imposed, and, later, re-evaluated.

I also found it interesting to see telegrams from the passengers of the Komagata Maru.

One letter reads:

Copy from Passengers Komagata Maru to Governor General. Telegram.

Vancouver BC, June 25, 1914

Many requests to Immigration department for water but useless. Better order to shoot than this miserable death.

Passengers

Komagata Maru

On July 8, 1914, the passengers made their intentions known. Being that the passengers were British subjects (India being controlled by the British monarchy and the British East India Company at this time), they came to the country wanting to cultivate land to boost economic resources for the Empire and the Dominion (Image 61). In image 69, Prime Minister Robert Borden explained to Charles Hibbert Tupper (the lawyer representing the passengers) that Acting Minister Interior CJ Doherty believed that if they complied with the passengers and allowed

them to receive provisions, it would “encourage other charterers to engage in similar expedition[s]” (Library and Archives Canada, 2023d). The majority of the correspondence in the Borden fonds consists of a reoccurring pattern: the passengers and lawyers negotiating to receive provisions; immigration/Inspector Reid refusing this request; HH Stevens escalating this situation by making the passengers sound like a danger to society. This back and forth continued for weeks until correspondence was sent to inform the Prime Minister of their departure to the Port of Budge Budge India, as the Passengers lost the court case and were ordered to be deported¹⁹, inciting celebrations from the citizens of B.C. What is missing is any indication of whether PM Borden received news about the Budge Budge Riot which claimed many lives. The rest of the fonds are correspondence that date beyond the Komagata Maru Incident and thus cannot be used as the subject matter of the correspondences related to other events like WWI, after which, the Passengers were never mentioned at all.

5.1.3 Day 3 - Microfilms

On my third and final day in the archive, I focused on the second microfilm I had requested. This was Baba Gurdit Singh’s account of what happened; from the ship’s journey to Canada, to being stuck at the port, to the moment of deportation, to the riot and execution against the passengers by the British Indian authorities, and this time as a fugitive for multiple years before turning himself in to British Raj police. Baba Gurdit Singh was the figure who organized the passage to Canada aboard the SS Komagata Maru and became an advocate for the passengers. His account of what happened is important because his account will provide insights and perspectives which can then be compared and contrasted with other perspectives.

¹⁹ The back and forth was on where the ship will be deported to. Because the Passengers arrived in B.C. via Hong Kong, but the ship was owned by a Japanese merchant, BUT the ship was made in Europe, deportation was difficult to arrange. Eventually, Hong Kong initially agreed to take them, but during the Passengers’ journey, they were not informed that Hong Kong rescinded that offer, but India ended up agreeing to let the passengers disembark.

This microfilm came with restrictions and thus no reproductions of it can be made (only notes). In addition, this microfilm went missing briefly before being found after half an hour by the front desk worker for the microfilms room. I wonder if it was the ghosts of the Canadian government not wanting me to see his perspective of this event. After feeding the reel into the machine, I realized quickly that this artefact is a book that Gurdit Singh wrote and had translated by the publishing company to bring his perspective to the events that unfolded to the English-speaking British colonies and Dominions (i.e., English-speaking Canada). Titled *Voyage of the Komagata Maru or India's Slavery Abroad* and published by the Compiler in Calcutta in 1928 (14 years after the voyage), the book is 252 pages long and is broken into two parts. In the foreword, Singh writes that he felt that it was his “duty to point out how subordinate officers misinterpret the orders of the superior authorities, and how in their zeal for doing DUTY they become instruments of oppression” (Singh, 1928, pg. B). In Part I, he describes his role as a contractor from the “Malaya States” (present day Malaysia) and his realization of the mistreatment of indentured labourers by their masters. Singh had heard about the exclusionary laws in Canada, but felt that because Indians were considered British subjects, Canada (being a Dominion) would have to let British subjects into the country according to the law of continuous journey. He decided to challenge this law by arranging for the steamer ship to carry the Indians who were blocked by this law and separated from their families, who now resided in Canada. Part 1 ends with this quote which calls our attention to the myth of Canadian history as a multicultural-ideal nationhood: “The Komagata Maru will forever blacken the History of Canada and to a certain extent will show the blackguardy rule of Great Britain” (pg. 108).

In Part 2, Singh talks about the trial's result, the death of Immigration Officer William C. Hopkinson by Vancouverite Bhai Mewa (Sewa) Singh Ji as well as the many deaths of Indo-

Canadians led by Hopkinson's raid in the gurdwara (Sikh temple).²⁰ According to Singh, the steamer ship left and journeyed to Hong Kong where they were denied entry. They then sailed to Budge Budge (Indian port) where they were met with British-Indian soldiers who declared that they will be sent to Punjab and not Calcutta. In part two, Singh claims that the killings were unprovoked, but he managed to escape the firing squad and went into hiding for many years, leaving his very young son (Part II, pg. 50). He later surrendered and was imprisoned for many years. The book ends there as he described that part 3 of the book will detail his life after arrest. It was detailed later that he was sentenced to house arrest in Amritsar where he was then reunited with his son, who survived the firing squad. His son grew up, got married, and immigrated to Canada with his family, where they continued to advocate for a comprehensive education on the Komagata Maru.

These archival records are important to the overall project, because the book is a first-person perspective of what happened. Like a portal into another time, readers are transported to Gurdit Singh's journey of challenging the oppressive immigration laws in Canada and the aftermath of this challenge. Accordingly, the archive box includes snippets directly from his book in the augmented reality digital components. While students navigate official documents, key quotes from Singh that frame his perspective and lived experiences prompt them to ask questions of who to believe, or if they should side with the government or the passengers. In her book-length study of SS Komagata Maru, Renisa Mawani discusses the theme of the homogenization of the ocean and standardized time (GST), essentially the oppressor's

²⁰ Immigration Officer Hopkinson ordered a raid (by hiring Bela to be a "mole") against the Sikhs at the local Gurdwara which resulted in casualties. Vancouverite Mewa Singh was threatened by Hopkinson to falsify his testimony in favour of the gunman. Singh decided to testify the truth and expose Hopkinson in court. Hopkinson was to appear in court to testify, but Singh decided to carry out justice in his own way. He realized that the court would most likely believe Hopkinson and most likely set a precedent to judicial bias. Singh was tried and sentenced to hang in 1915 in New Westminster.

justification to homogenize spatial, temporal, and global reordering (Mawani, 2018, p. 28).

Historical objects can disrupt this homogeneity through individual memorialization of broader events and can allow viewers to come to their own understanding of the past by exploring these objects (Huysen, 2003). The archive tells us different perspectives of the same event, something textbooks do not do. There is no homogenization; rather, different voices are seen and heard when one rifles through the boxes and microfilms.

At the end of this visit, I give my thanks and goodbyes to the archive. In my culture, when we move away, we give thanks to the structure and land that housed us and kept us warm. It ends our emotional ties to a space, and we move on in our life's journey. I leave the archive feeling heavy, having to have learned from the complexities and multiple perspectives within this event. The spectres and ghosts have presented themselves in different ways. They have shown kinship as they face oppressive forces in a ship and form their own understandings and resiliency as they face the authorities. I have a kinship with the passengers, as I am well aware of my positionality within the heteropatriarchal colonial systems in colonial and state institutions. I have an archival kinship with Gurdit Singh as we both understand the importance of storytelling and translation. Inspector Reid presented himself to be a powerful man who is not afraid to look into the camera, while MP HH Stevens presents himself to be arrogant in his ways of thinking. I have sympathy for the passengers as their case (presented through Borden's telegrams and Singh's book) was handled very poorly and inhumanely. In the photographs I have seen, I can feel the hope and excitement that transforms into defeat and fear. Prime Minister Robert Borden was completely missing from the archive. He was not in any photographs or telegrams (his fonds are telegrams he received); his perspective was completely missing. *Why is he not shown? Is he afraid of how I will view him? Who knows why he decided to not present himself. Is he even*

relevant to this situation and to what the spectres presented to me? I leave the archive knowing that the archive box will be complex with experiences and voices; it is up to the students with the guidance of the teacher to navigate complex topics such as immigration, identity politics, solidarity, and police brutality.

For this section, I reflect on the archive not merely as a static repository of documents, but as a living, affective site of encounter—one that invites a dialogue between the past and present, the seen and unseen, the dominant and the silenced. The Library and Archives Canada became a space where I navigated both the material traces of history and the ghostly presences of those often left out of national memory. My approach to the archive, grounded in critical inquiry, allowed me to experience these historical artefacts as more than just records of the past; they are portals to complex narratives that challenge dominant and singular narratives and, in so doing, call forth marginalized voices. Through the process of carefully selecting photographs, microfilm, and textual materials related to the Komagata Maru, I curated a constellation of perspectives (the passengers, the media, and the government officials) that form the basis of the archive box and AR works. The next section explores how these archival objects are mobilized through augmented reality and creative inquiry.

5.2 Trial and Error, Trial and Error, Trial and Success: Creating the Web-AR Site

After the archive visit and narrowing down the objects for the archive box, I decided that all the photographs I had selected would be used as the AR image trigger. Image triggers are images that, when scanned by a photographic device, can reveal digital components. Additional components, such as some of the correspondence and newspaper clippings, will be used as the digital components for the AR image trigger. This section will outline the experimental process of creating the AR app.

Early in the research process, I decided to use Unity with Vuforia to create the app. Unfortunately, this did not work given challenges uploading the app. I also worried about the feasibility of this project if replicated into a toolkit for classroom educators. Thus, UnityxVuforia did not work within the scope of this project.

I then decided to investigate user-friendly AR resource sites that would allow students and teachers to learn and experiment with AR. Originally, I thought about using EyeJack (the program I used for my MFA research), but decided against this because of some of the limitations when creating the works. For example, for video-based digital components, the video can only be 30 seconds. In my exploration of alternatives, I discovered WebAR Studio, which is not only user-friendly but requires no coding and the finished work can be accessed through a QR code (website-based platform). Even though I initially used this site, I ended up switching to Pictarize after the first round of the study because WebAR Studio self-deletes AR projects without warning. Pictarize Studio is also an open-source website software that allows users to make AR works with little to no coding. It is not as fancy as WebAR Studio, but it has the basic components needed to make AR works.

I view archival objects as portals filled with stories and narratives that can be re-animated through the research I have done in the archives. Given this relationship between the archive and augmented reality within my work, I centered the idea that AR can be used to enter these portals of reality and experience/learn from (hi)stories in the design of this art making experience. With the five photographs and a bronze plaque as AR triggers, I created the following work which can also be experienced through the AR catalogue (Appendix J):

WS424—Immigration Officers-Komagata Maru *featured Inspector Reid who oversaw overseeing the Komagata Maru case*

- AR component includes a message from the passengers via the Robert Borden fonds and a prompt asking the viewer to think about the effects of power dynamics on various communities.

WS423—Immigration Officers (Insp. Reid), HH Stevens and reporters “Komagata Maru”

would be used to discuss with students about media source bias

- AR components include a side-by-side comparison of two news articles (one from a BC newspaper and one from a Toronto newspaper). The prompt asks viewers to compare the new articles and think about how media has depicted the passengers and the government officials.

WS441—Sikhs in turbans abroad Komagata Maru *would be used for additional information with the ship manifest*

- AR components include snippets from Gurdit Singh’s book, detailing his intentions to fight systemic barriers in the immigration process. The prompt asks viewers to think about the role of activism in wider issues such as immigration.

WS436—Troops *would be used for discussion on militaristic force against immigrations*

- AR component includes a side-by-side comparison on two telegrams depicting the perspectives on a shooting that happened on board the ship between the passengers and the military personnels. The prompt asks viewers to think about who was right in this situation.

(No code)—Portrait of BC MPs

- AR components include snippets from a speech made by HH Stevens during a Town Hall that discussed the MPs opinions on the immigration attempt from the passengers on the ship.

Bronze Plaque of the Komagata Maru ship

- AR component has a video overlay that give an overview on the events unfolded with the SS Komagata Maru and all involved (passengers, government, lawyer, BC community, etc.).

In the next section, I discuss the process of putting together the archive box, which becomes the example of how archives and AR can be combined for my participants in later chapters.

5.3 Creating the Archive Box

In the previous section, I describe the process of making the AR components. In this section, I delve into the creation of the archive box and the inspirations surrounding this format. By doing so, I additionally articulate how I create and intertwine research with art-making practices as an artist through sharing a previous example of my work which served as a jumping-off point for this project design.

The creation of this archive box is reminiscent of one of my MFA projects titled *The Missing Fonds*, which featured a banker box filled with photographic images of the ten Sikh-Canadian soldiers who fought in WWI's Canadian Battalions. The box also featured a codex that provided additional information about the objects. When I first installed this piece, it was for the exhibition *Living With Things* at Open Space Gallery (Toronto from April 3-7, 2019). The installation featured the banker box of archival images and the codex, a table and chair for sitting, magnifying glasses, gloves, and the short catalogue.



Figure 6 Missing Fonds (ten Sikh Soldiers), installation, Living With Things opening reception, April 4, 2019, Open Space Gallery, Toronto

During the exhibition, visitors were curious about what was inside. Many took the time to go through each image, matching the serial number with the codex. Some asked questions about the soldiers (e.g., why only ten were uncovered, why some changed their names, etc.). Later in my MFA journey, I started incorporating augmented reality as an added layer to uncovering South Asian perspectives in Canadian history. *The Missing Fonds* series and the later-added AR works became a focal point in the creative process, in that what I learned from this series is that people are curious and are willing to explore the archives when the experience is facilitated (for example, many were afraid to touch the pieces until they were encouraged to do so). People have

questions about history and are surprised by what they do not know. This project confronted the viewers' own notions of what they were taught in schools.

This project leveraged the trope of the banker box – a stereotypical vessel for archival artefacts – to embed participants within a familiar experience that then disrupts their own preconceived notions of history. It is seen a lot in media—particularly fictional crime and mystery TV shows. I was also inspired by the idea of being able to just pack up the installation into a small box for easy transport. Ackerman's work is similar in that all her works can be transported into the travelling trunk (Campbell House Museum, 2018).

For *Finding Voices*, I used the a/r/tography framework to house both the analog objects and the objects that can be activated through digital means. This box is more like a kit that contains the tools needed to help participants critically analyze archival objects and generate discussion about social justice issues surrounding citizenship, race, media, and policy. For this project, the banker box included a binder with instructions, the QR Code, the codex, and some newspaper clippings, alongside all of the image triggers, white gloves, pencils, paper, magnifying glasses, and “authorization cards.” This previous experience creating archive-engaged, curated artistic experiences heavily influenced how I approached the archive box within this research. In the next section, I discuss my concluding thoughts on this chapter and provide linkages to the theoretical frameworks outlined in Chapter 3.

5.4 Concluding Thoughts

This chapter provides readers with an account of how archival research can be transformed into a meaningful and participatory pedagogical practice. By sharing the process of conducting anti-colonial, multimodal archival research—from preparing for my visit to Library and Archives Canada, to engaging ethically with historical objects, to selecting materials that

speak across time and silence—I offer what it means to research in the archive and “touch history.” Rather than reinforcing dominant, state-sanctioned narratives that often sanitize or erase structural violence, this chapter models a research-creation methodology grounded in refusal, relationality, and ethical listening. Drawing on a/r/tography and the practice of prowling (Stoler, 2002; De Certeau, 1974), I present the archive not as a passive site of storage, but as a living space shaped and haunted by voices that persist in the present.

The creation of the archive box emerges from this research as a portable pedagogical tool that invites students to engage with history through tactile, visual, and augmented reality encounters. It challenges traditional classroom boundaries by making the past feel present, material, and contested. The banker box filled with curated historical photographs, interpretive prompts, QR codes linking to augmented content, and supporting materials becomes both a container and catalyst: a kit for inquiry, conversation, and critical reflection. It offers teachers and students not simply content, but a method for engaging with difficult histories, amplifying marginalized voices, and fostering nuanced understandings of citizenship, race, power, and national memory. By modelling this process and offering the archive box as an educational tool for exploration, this chapter demonstrates how archival engagement can be an act of pedagogical resistance and possibility. It invites educators to co-create with students, to make space for spectres in the curriculum, and to treat archival research as a reparative practice of historical inquiry and making.

Chapter 6: Curiosity, Question-Asking and Engaging with the Past through Interactive Workshops with Teacher Candidates

Curiosity plays a vital role in my a/r/tographic research: both in driving student/participants' (BEd Teacher candidates) engagement with the archive box that I had fabricated as a researcher, and in inspiring their contributions to the augmented reality catalogue and exhibition. This chapter narrates the data collection process from my perspective as a researcher, and interprets the responses, questions, and feedback from participants, gleaned through the data instruments (observation notes and surveys). My study with participants was conducted in two distinct phases working with one group of participants, followed by a second. The data I collected has been grouped into themes and dialogues. This chapter mobilizes the theoretical approaches outlined in Chapter 3 and puts them into practice. This includes dialogue and conversations while observing and facilitating the work of my participants. Throughout these interactions and reading the participants' survey answers, I discuss how their experiences echo sentiments outlined by theorists in Chapter 3. In doing so, I consider some potential answers to my wider research questions.

6.1 Recruiting, Failing, Recruiting, Onboarding...An Iterative Process

Though my project originally proposed to work with secondary school students in the classroom to question the conditions in which history curriculum is delivered, those same conditions prevented me from realizing the project as planned. This section therefore reflects on some of the challenges I encountered in project design and recruitment as a researcher, because it shows that even schools may feel the need to protect students from potential harms perpetuated by outsiders, including academic researchers. Rethinking and reconfiguring my project impacted my research question, as I was pushed to consider the ways educational institutions safeguard

against having creative or possible ‘outside’ influences that are not provincially regulated. While reasons are unclear behind the difficulties I faced gaining access to classroom spaces, I have also considered the power dynamics involved wherein educators might also feel vulnerable participating in this work; even educators who teach slightly outside the curriculum guidelines could be met with pushback from their respective district school board and/or parent/guardian communities (Bass, 2022).

My proposed project had focused on secondary school history classrooms as the site of my research, which required ethics approval not only from my home university, but from the ethics boards of the public schoolboards I hoped to work in, as well. Unfortunately, when I began to undertake my data collection process at the beginning of September 2023, the COVID-19 pandemic had (and still has) wreaked havoc on the well-being of underfunded public-school educators as they were then shifting back to in-person learning. As such, the schoolboards’ focus was on protecting the time and workload of the teacher (as stated in the letter rejecting my application for ethics approval from one of the school boards).

Once public schoolboards were no longer viable sites for my in-classroom research, I shifted to reaching out to private schools as potential research partners in the hopes that their processes would be more open and flexible, and that their classrooms might better resourced such that we might work together. Some had not responded back, or others were interested but then later retracted an invitation for me to undertake my research on-site. For example, a private school who expressed interest in the work was later informed by their Human Resources department that they were no longer allowing researchers on their premises after an incident a few years ago (hence safeguarding measures for the teachers and students). This experience led me to shift my research to young adults who have graduated in the last few years.

In discussion with my supervisor, I decided to shift my focus and draw from a participant pool from York University's Bachelor of Education (BEd) students, inviting them to respond to archival materials and use the augmented reality (AR) software to experiment with alternate modes of a/r/tography-grounded pedagogy within the university setting, with the aim of providing models, resources, and tools that they might use to enrich and transform their own practices. The BEd program (known colloquially as Teacher's College) is a two-year consecutive undergraduate program where teacher candidates learn what makes teaching and educators effective in their field. This program is a full-time professional degree that prepares prospective teachers to be able to teach in Ontario school districts. The program offers three streams: Primary/Junior (P/J) for grades Kindergarten to 6; Junior/Intermediate (J/I) for grades 4 to 10; and Intermediate/Senior (I/S) for grades 7 to 12. A prospective teacher in the P/J stream engages in courses that broadly speak to various subjects (i.e., arts, science, math, literacy, etc.), whereas J/I and I/S candidates take courses related to their 'teachables' (specializations). This is on top of courses that will prepare them for teaching (e.g., lesson planning and design, classroom management, etc.). In the span of two years, students take courses and partake in practicum placements to garner experience. 6 months before applying for their OCT license, they put together a teaching portfolio that comprises course work, documentation, and letters of support from their practicum mentor teachers. I decided to work with pre-service teachers (PSTs) because they are at an interesting intersection on their educational journey. Not only are they students who have graduated from secondary school and could speak to their secondary school experiences, but they are also educators trying to navigate their pedagogies and could give opinions on the affordances of this project in school settings.

As part of my recruitment materials, I created a “Call for Participants” form asking for prospective participants to provide their contact information, their teaching streams/teachable areas and some short writing about why they were interested in the study (Appendix B). This call was sent out through the program’s undergraduate listservs twice (December 2023 and January 2024) as well as through the BEd program’s core courses (EDFE 2100 Foundations of Education and EDFE 1101 Adolescent and Development courses) via the eClass course management platform. I also asked fellow teaching assistants (TAs) to send out the call on my behalf in January, and I presented my research in the EDFE 4200 Research into Practice course, where I told students that the study is ongoing, and they could come see the exhibition portion of the research done by the first set of participants. The entire recruitment period was undertaken during the Winter semester (December-April).

6.1.1 Student Profiles

In the first round of recruitment, three students responded, but only two were able to complete the study. I later changed some of the language in my participant call email to be concise and to the point, but also showcase the flexibility of the project via the timeline. What I should have done differently was start the recruitment much earlier before the Winter Break to possibly get more engagement. I briefly describe the backgrounds of the two participants below, anonymizing them to maintain confidentiality:

- Student A is a first year Concurrent Education student in the Intermediate/Senior stream. Her teachable areas are Social Sciences and English. When asked what piqued her interest in the study, she answered:

I have a passion for social justice and am constantly exploring ways to modify and mould my teaching pedagogies around decolonial practices. Growing up, I did not have

an interest in Canadian History because every narrative was told from a Euro-Western colonial perspective. What inspired to go into education and pursue teaching was my desire to instill curiosity and passion into my students so they could enjoy learning. As I go through teacher's college, my perspectives on why I am in education have shifted significantly. I see education as a space where students can effect positive change in society and take the knowledge/theories they have learned, and put them into practice. Education is so much more than what we learn in textbooks and the mandate[d] curriculum; it is about what we learn through the hidden curriculum (the unspoken social norms, cultural values, belief systems, etc.) and emotional curriculum that we translate into the real world. I also love art galleries, museums, and looking into cultural artifacts, so I think this would be a good opportunity to tap into the creative side of me that I don't often get to show.

- Student B is a second year Consecutive Education student in the Primary/Junior stream.

What piqued her interest in the study is:

I love the ideas [sic] of using both hands-on and online experiences to enhance the learning outcomes for children in history.

In the second round of recruitment, three more students became interested in the study while the exhibition was running.²¹ In a way, the exhibition became a part of the recruitment as initially I intended to only have one round of the study. However, I believe that the exhibition showed a tangible result to the next round of participants—a physical example of what will happen in the study—which helped form their decision to sign up for the study. One student

²¹ Both participation rounds did the same phases: engagement with the box and app, workshop, creating their historical inquiry project (AR) and exhibitions.

emailed me directly to express their interest; one student came to the exhibition and later filled out the form, and the third student filled out the form directly. Below are their profiles:

- Student C is a first year Consecutive Education student in the Intermediate/Senior stream.

His teachable areas are French and Math. When asked what piqued his interest in the study, he responded:

This may be worryingly uninspiring, but I saw the email, and I was like, "Sure, why not."

- Student D is a first year Concurrent Education student in the Primary/Junior stream. In her initial email, she wrote:

I'm completing a Specialized Honours in History at York and I'm always looking for new ways to improve/transform history education in the primary/junior grades. I've heard too many times from young students that history is their least favourite subject in school, and I'm hoping to change that in the future.

- Student E is a second year Concurrent Education student in the Intermediate/Senior stream. Her teachable areas are History and English. What piqued her interest in the study is:

My overall love and interest for history and more specifically my interest in archival photographs and videos that depict the histories and lived experiences of marginalized communities.

As part of the onboarding process (before starting the participant surveys and me writing fieldnotes), I met with the participants virtually (via Zoom) to ensure that they understood what was being asked of them for the research. I held two info-sessions in December 2023 (after which a third participant in the first round changed their mind about participating due to them

feeling that the project will be no use for them pedagogically) and February 2024 (Appendix D). At the info-sessions, I shared the background context and inspiration for the research project, went over the consent forms with participants, reviewed the timelines, and our respective responsibilities as co-researchers and principal investigator. I emailed the Google Slides from my presentation, and copies of the consent forms (Appendix A), to them to review more carefully at home before our first workshop. I did not ask them to sign the consent forms until our first session, to ensure that, if there were any more lingering questions, we could discuss them, and so that I could indicate on the form whether they wanted to consent to include images of their faces in the photographic documentations I created for the project (or whether they would prefer these be blurred).

This section has outlined the challenges and necessary adaptations involved in conducting research during a period marked by ongoing pandemic disruptions and institutional safeguarding toward external inquiry. The shift from secondary classrooms to working with pre-service teachers at York University not only reflects pragmatic responses to these barriers but also opened new avenues for exploring how emerging educators engage with creative, alternative pedagogical tools grounded in a/r/tography and augmented reality. By situating the research within a university context, the project remains focused on impacting history education while navigating ethical, institutional, and practical constraints. The following section will delve into the analysis of Survey 1 (before engagement of the archive box).

6.2 Before Engaging with the Archive Box (Survey 1)

This section analyzes participant responses to Survey 1, which asked students about their comfort levels with history and technology (Appendix E). These questions allow me to understand their comfortability with history and technology, but also gain a better insight into

what their history education was like. I conducted this portion of the research at the Sensorium Loft on campus (except for Student E who was in the Graduate Student Lounge Meeting Room in Winters College on campus). Survey 1 was done on January 9 and 12, and February 13, 15 and 16, 2024. Some of the key themes that emerged from this survey included feelings of a knowledge gap, continual curiosities, and confidence.

Starting with question 1, the participants were asked: *How confident do you feel about your knowledge of Canadian history?*

Out of the 5 participants, 3 of them felt confident in their Canadian history knowledge. Student C, for example, makes a comment where even though he feels very confident with his knowledge of history, his knowledge is “limited to what the curriculum and various historical games have taught me, so [he] understand[s] [that he] hardly scratch[es] the surface”, whereas Student D feels her knowledge of history is “above average” as she “took several courses centered around Canadian history in my undergrad at York, and wrote longer papers addressing various issues related to historical issues (e.g. The 1960s in Canada – wrote about the Mohawk Institute Residential School, Canadian History, Global Indigenous Histories).” Similarly, Student E feels “fairly confident” as she is a history major in the BEd program with a specific focus in Canadian/African Canadian history which later becomes a focus in her AR series. Students A and B did not feel confident in their knowledge of history either because they felt like a beginner (Student) or they “did not [have] the opportunity to engage in learning more about Canada history” (Student B).

Based on these answers, most of the participants felt comfortable or confident with their existing knowledge of Canadian history. In the BEd program, all first-year students take a course called EDFE 2100 Foundations of Education, Theory into Practice where a portion of the 8-

month course is dedicated to the history of education. Students learn the basics of the history of so-called Indian Residential Schools in Canada and about segregated schooling systems in Halifax. Some of the participants have taken additional history courses based on their past interests, as seen through the responses submitted by Students A, D, and E. Participants who were not as confident or felt they knew just surface level knowledge nonetheless expressed enthusiasm about the prospect of learning how to intertwine history with augmented reality, as seen with the answers provided by Students B and C. Overall, my interpretation is that despite their confidence levels in history, the participants overall were keen to know more. Their answers suggest an understanding that there is always something to learn in history. This is especially seen through their engagement with the archive box, which I detail in Chapter 7.3.

Question 2 asked: *How confident do you feel about your knowledge in artmaking?*

All the participants except Student B felt less confident about their knowledge in artmaking. Again, a major theme that emerged from the pre-workshop survey is a willingness to learn. While some of the participants were not as confident, they have a willingness to learn more about intertwining history with artmaking skills via the digital components of the augmented reality works. In addition, their answers were outside the context of secondary schools. As in, the experiences that some have mentioned is through their post-secondary/undergraduate experience. For example, Student B mentions her experience with artmaking through the BEd. program and work for the City of Toronto's children's arts program, while Student C mentions enjoying "writing essays, short stories, sometimes screenplays, and...began a journey with digital art." This may speak to a common school culture in secondary schools where the courses that students take are purposeful in that, depending on what they would like to pursue in the future, the courses must meet those demands. Arts, most of the time,

do not fit the prerequisites for most university and college programs. In addition, budget cuts to the arts since 2019 have left many arts programming to suffer in terms of quality (Boisvert, 2020). Again, despite their lack of confidence with artmaking, they are “open” (Student E) and “willing” (Student A) in learning artmaking skills. In keeping in mind their lack of confidence, I reassured them that their historical inquiry projects can be experimental, and the goal is to showcase their research in multimodal ways and not always about what is most aesthetically and visually pleasing or dynamic.

Question 3 inquired: *Which parts of history would you be interested to learn more about?*

Why?

The answers are all varied, however, all participants indicated that they wanted to learn about histories that are not in the mainstream history curriculum. For example, Student A stated they were interested in learning about underrepresented histories from marginalized and racialized communities. Student B was interested in learning about Indigenous histories not typically talked about in classrooms., and Student C in tying in their mathematics teachable (i.e., mathematics and astronomy history in 500 BC). Student D expressed interest in delving deeper into social histories and analyzing “historical social trends that continue to have an impact today.” Lastly, Student E was very specific in that she wanted to delve deeper into the “lived experiences of immigrants in Canada such as Caribbean and African immigrants in the 20th and 21st centuries.” These varied responses touches on Britzman’s and Eisner’s words on students’ feelings of being kept away from important aspects of history (the null curriculum). Through Britzman and Pitt’s (1998) lens, this “loss” of these “kept” histories have turned to an “affective turn” in engaging with these histories. These sentiments are also echoed in Maxine Greene’s

(1988) notions on “rootlessness” wherein the turning away from shaping “authentic expressions of hopes and ideals” creates a sense of loss or being kept from something (Greene, 1988, pg. 3).

Question 4 asked: *How would you describe your past experiences of using technology for learning?*

Again, the participants’ experiences varied widely. All of the students’ experience with technology was through schooling, where they reported having to use technology in one form or another for “writing essays, doing research online, and browsing through readings for class” (Student A) as well as for their practicum experience with “creating digital lesson/activities for primary students during [online schooling during the pandemic lockdowns]” (Student D), or using “technology [to] increase student engagement and discussion in classrooms” (Student E). Out of the 5 participants, 2 of the participants indicated negative emotions towards technology stating that, outside of Office tools, “technology has always added a little bit more difficult[y]” (Student C) or, due to the pandemic lockdowns, technology has become “less enjoyable—develop[ing] considerable anxiety over [sic] time” (Student D). Meanwhile, one participant indicated that they “find it easy to navigate and learn new programming” due to growing up with and around technology (Student B). Some of the participants positioned themselves as learners, while other positioned themselves as prospective teachers, indicating towards a future-oriented lens regarding what can technology offer to not only themselves, but to their future classrooms. These initial conversations around technology contribute to the “in-between-ness” of the participants, being both students but also teachers. This in-between-ness allowed for richer dialogues to occur, as we navigated the needs of both students and teachers in history classrooms, informing the toolkit that I would subsequently create. In my initial conversations with the participants, they were excited to learn how to combine history with augmented reality.

Student D remarked that she loved the interactive elements in her Literature and Culture course in the BEd program. Particularly pertinent findings also included hopefulness via technology in some of the participants' answers. For example, while Student D felt anxious over navigating online learning, she enjoyed using technology through the lens of practice and would also like to use technology to create enjoyable interactions in one of her Teacher's College courses. When talking to Student A about creating the works, she was excited but nervous about learning to create AR works.

Question 5 asked: *What was your history education experience like?*

Most of the students (A, B, C, D) related that they have experienced a textbook-driven case of the banking model of education (Freire, 1968) through their descriptions of having a "rigid and disengaging" (Student A) history education in either elementary or secondary schools, where the teacher "focused more on memorization of dates and timelines of certain events began and ended" (Student A) or an "overview of Canadian history" (Student B). History education for most of my participants were "limited to the textbooks teachers chose to use" (Student D). These varied responses indicate a larger problem in history education where students in those spaces are not taught crucial skills like critical analysis of historical events or understanding nuanced histories that might not be mentioned in textbooks. This is further indicated by Student A during her engagement with the box, during which she stated that she did not learn about commonly taught historical events (i.e., the Holocaust) until she took courses in university. Speculatively, Student E's elementary and secondary school experiences created feelings of exclusion and unbelonging as she felt that the "histories and stories that are constantly valued and told exclude Black histories, Indigenous histories, histories of POCs [people of colour], LGBTQ histories, and the histories of disabled folks."

Students B, D and E described positive experiences in their history education, but primarily through post-secondary education where they have attained a “much more fuller [sic] picture of what history is” or through learning outside of the classroom such as learning through art exhibits (Student D). Student D is the only participant who indicated a shift in pedagogy from more conventional to critical approaches in his own K-12 educational experience as he described how—while his elementary history education was very much like the banking model—his teacher in a Grade 12 history elective employed comprehensive approaches to history education through preparing the class on “how to [research and write] historical papers and evaluate information.” Turning back to post-secondary as a time where students most report more dynamic approaches to history teaching and learning, Student E described (in conversation) the different courses she took during her post-secondary education, and how she always takes as many marginalized and racialized-based courses to create an “act of transgression and goes against the norms of what we view as holding historical significance.”

Overall, these answers suggest that secondary school history education lacks a focus on student engagement (as seen through Student A’s answer). This could be due to Ministry guidelines not outlining best practices for teachers to implement when asking students to engage with history, or due to a lack of culturally responsive pedagogical tools that attempt to relate historical events to student experiences and knowledge in the present.

The last question of Survey 1 asked: *Why did you choose history as your teachable? (if applicable)*. For this question, only Students B, D, and E answered.

Student B stated that “it is important for children to know and immerse themselves into programming that will [instill] their further knowledge and allow them to gain understanding of how, and who we are.” Student D always “loved history—reading and writing historical papers,

articles, books – and wanted to make a difference to primary history education,” while Student E personally felt a disconnect when learning history as “it [diverse representation in history] was never centred or given space in the classroom.” In turn all the participants expressed wanting to subvert the stereotype of history being students’ “least favourite subject” since it is “all memorization of dates” (Student D) and to instead create space for “ideas/perceptions of who’s [sic] history is valued and integral in the Canadian landscape” (Student E) and hopefully allow students to be “motivated to learn and interested to learn particular topics” (Student B).

Students B and E use key terms like “disconnected,” “alter,” and “immerse” to describe their reasonings for going into history teaching. The use of these connective and affective terms suggest that the students did not have an adequate secondary school history education (as seen in the previous questions) and feel a need to transform the subject for their future students. This is further seen in Student D’s answer, in wanting to change the mindset of students (that “history is boring”) to better align with their positive experiences with history in post-secondary education. Overall, these three students seem to have a willingness to reimagine ways to create engagement within history classrooms. The a/r/tography project is one of many examples through which history classrooms could be reimaged by focusing on outputs that allow for creation of knowledge. Teachers can integrate this method (the project’s structure) as an assignment that could be part of the “historical inquiry” unit of the course, or as a cumulative assignment that engages with history through the modalities of curiosity and practice-based inquiry.

The analysis of Survey 1 responses reveals the varied yet interconnected ways participants engage with history and technology, highlighting key themes of confidence, curiosity, and critical reflection on their educational experiences. Despite differences in comfort levels with history content and artmaking skills, all participants demonstrated a willingness to

learn and an eagerness to explore alternative, multimodal approaches to history education. Their reflections on past schooling signals the limitations of traditional, textbook-driven history curricula and the need for more inclusive, engaging pedagogies that address marginalized narratives and foster deeper connections to historical inquiry. These insights set the stage for the subsequent chapters, which will explore how participants interacted with archival materials and engaged in creative meaning-making using augmented reality, further illuminating the potential for transformative history teaching and learning.

6.3 Engaging with the archive box (Survey 2 & Observation/Documentation)

After completing and submitting Survey 1, participants were guided to engage with the archive box I made as an example of the ways history education, artmaking, and augmented reality can intertwine to become a tangible form of engaging with the so-called Komagata Maru event. After engaging with the box filled with archival reproductions of photographs, passengers lists, and a bronze plaque, the participants filled out Survey 2 which asked them about their experience with the box and related AR app (Appendix F). This section describes the experiences of the participants engaging with the archive box and analyzes their answers to the survey questions. I then provide interpretations of how their engagement with these contents speaks to their level of curiosity regarding learning through tangible objects and guided facilitations, which offers insights into whether grade-level students might also be interested in this kind of work given that these engagements are contextualized by PSTs self-reported K-12 experiences with history. This part of the study was conducted in either the Sensorium Loft on Keele campus or in the Grad Lounge Meeting Room in Winters College.

On January 9, 2024, Student A and I met at York Lanes Mall and walked through the snowy campus to Sensorium Loft. After getting situated (signing the consent form and filling out

Survey 1), I invited her to engage with the box however she wished. After opening the lid, she pulled out the binder to read the instructions and used the Archive Index section to reference each of the items in the box for her understanding. She then pulled out the bronze plaque and asked about the Komagata Maru after reading the Archive Index. I provided information on the plaque (how I made it, the information about the ship, etc.). She then commented that “we don’t learn about Black and Brown histories,” remarking on the fact that she did not learn about the Komagata Maru ever and she would be learning about this for the first time through this project. She also mentioned sheepishly that she did not learn about the Holocaust until university, which surprised me. According to her, the high school teacher felt “uncomfortable” teaching traumatic histories. She then remarked that if she had learned about the Holocaust through the method I am employing, she would have had a more comprehensive understanding of the historical event.



Figure 7 Student A engaging with the archive box, January 6, 2024, Sensorium Loft, York University

Student A then tried out the app. Based on her facial expressions, she looked impressed by and curious about the content within each augmented reality work. Each augmented reality work features an array of digital components, such as text, images, or video overlays (depending on each image). She then asked follow-up questions about citizenship and immigration during 1914, and in response, I relayed more information about the racist immigration laws perpetuated by Canadian government officials throughout the 1910s. When she reached the AR work with the passengers aboard the ship, she was interested in who the passengers were, and what they did for work, and what happened after the riot. In response, I directed her to the book of passengers.

After flipping through the book, she remarked that “erasures of history start with the names of people.” After going through all the photographs and the book, she asked whether Canada reconciled with the passengers’ descendants after the event. I answered that the Canadian government created a series of apologies at the House of Commons and that different counties in British Columbia also apologized on behalf of their historical, racist Members of Parliament (MPs). She gave a very visible eye roll in response, indicating an annoyance about the Canadian state’s tendency to make apologies but no actionable deliverables.

Student A then reached for the binder again (which contained instructions about how to activate the QR codes and the newspaper clippings of the Komagata Maru, as I did not want them to get crumpled in the box). She flipped through and read each of the clippings and asked where they came from, to which I replied that I sourced them from the BC Daily and the Toronto Star newspapers (May-July 1914). “The headlines are really...something...” she answered, unsure about what to make of the editorial slant on events, such as “Another Batch of Hindus Are Coming,” “Hindus Sail for Home, Beer, Sheep, and Fowl,” and “Hindus Surrender And Will Go Home.” After engaging with the AR app and the box, Student A asked why I chose AR as a medium, to which I replied that I wanted to spark curiosity in history classrooms beyond watching historical fiction films or documentaries. Hence, I decided to create a toolkit for educators to use to reimagine their history classrooms through the a/r/tography method. Near the end of the engagement, Student A asked a series of questions about colonies (why we have colonies, why the United States is not a colony, and why we do not learn about US history in Canadian classrooms).

Student A was then asked to fill out Survey 2. Student A found the AR app “easy to navigate because [she] just had to scan the QR code through [her phone’s] camera and hover

[her] camera over the pieces in the archive box.” She liked the app as it did not require any third party downloading as it is website-based. Student A had no complaints about navigating the AR space which is an indication that the AR program is user-friendly. With the overall experience, Student A found working with the archive box “engaging” and felt that she learned a lot through the guided facilitations and discussions surrounding the objects. As a result, Student A learned that “history is more engaging when it is taught through technology.” This can refer to the gamification that educational technology so often mobilizes, while at the same time brokering relationships between students and dynamic archival artefacts. Interestingly, Student A thought about how engaging history through this creative way would have “benefitted [her] more in high school when history was taught [to her]” and “future history teachers should consider implementing augmented reality into their lessons.” Overall, the session with Student A invoked a sense of inspiration as she felt excited about learning how to make AR works. Similarly, all the participants felt excited about creating AR works. Student B felt nervous about creating something, but after much encouragement from Student A, Student B felt confident (especially after creating the works and receiving feedback).

On January 12, Student B and I met at the Winters College parking lot and walked over to the Sensorium Loft. After getting situated, signing the consent form, and filling out Survey 1, she started her engagement with the archive box with much excitement. After opening the lid, she took out the binder and read through it silently. Afterwards, she tried to launch the app, with success. She started with the bronze plaque which depicts a side-view of the Komagata Maru ship but could not get the trigger to load the video piece, and so I guided her to an image of the bronze plaque which worked better. I suspect that the bronze plaque was too shiny to be picked up by the AR and would probably be best as a tactile analogue object that students can just feel

rather than view through a device. I also noticed that she paused the video several times, which may indicate that my timing for the video piece is too fast.

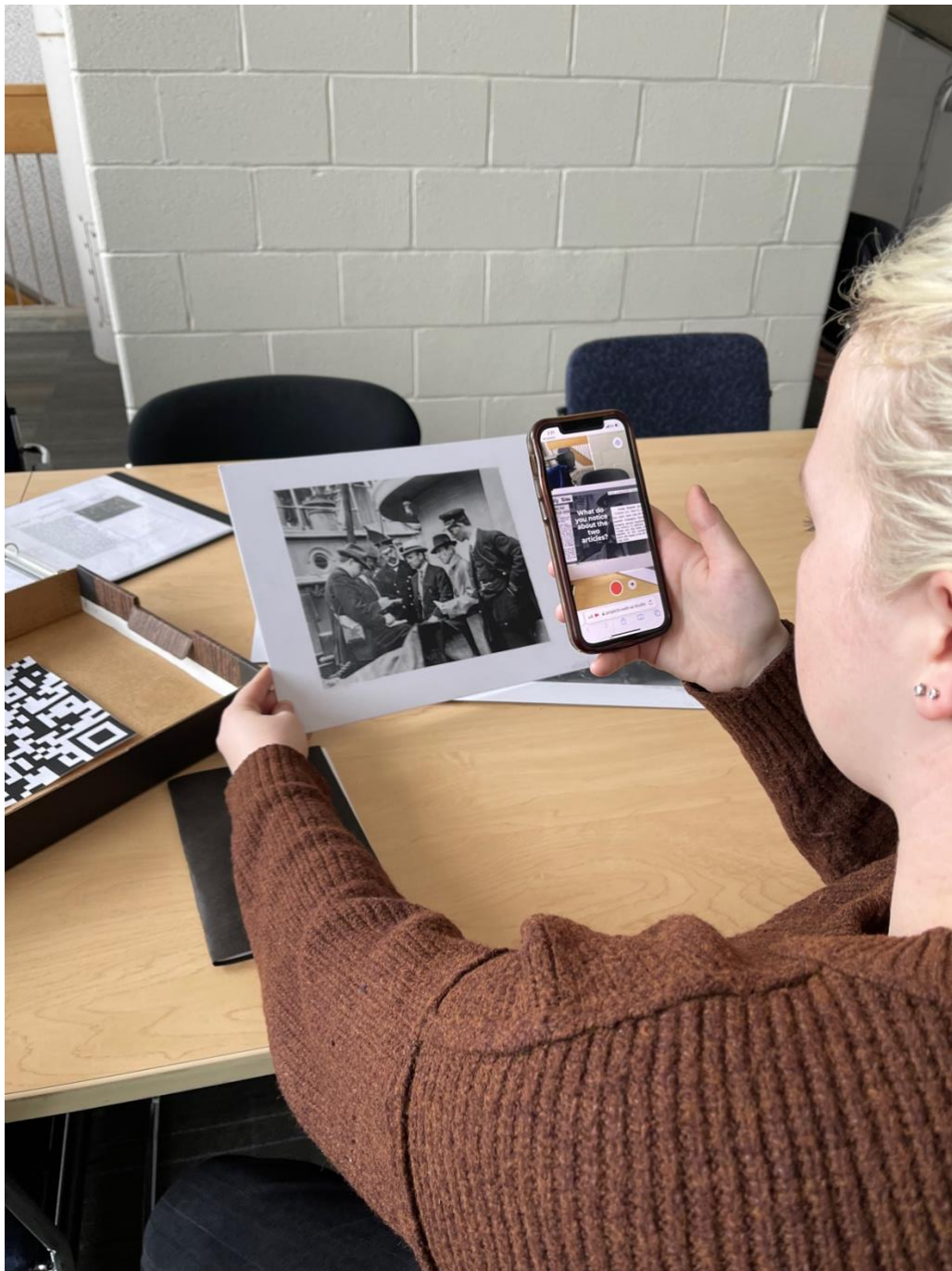


Figure 8 Student B engaging with the archive box, January 12, 2014, Sensorium Loft, York University

Student A joined us in the Loft to meet Student B and listen to the workshop that was scheduled the same day. After looking at the video, Student B commented that high school students would be interested in a project like this: “Students are not informed about history,” Student A remarked, “We mostly learn about history throughout TV,” Student B agreed. Student B also commented that, “The online stuff is cool” and “teens love technology.” Student B then informed me that primary school students are given Chromebooks at the beginning of the school year to learn about computer literacy skills. Student A contributed that technology could be used to get cultural artifacts, wherein through technology (i.e., AR) it might be easier to view cultural artifacts since the majority of the objects are housed in Ottawa and, for the most part, are out of reach for students unless requested through a formal electronic form or in-person visit to the archives. I then posed a question about whether they believe we are seeing historical trends repeating, re-cycled in present-day politics. They responded with “100%” and “Absolutely.” Student A then asked what multiculturalism is, and I responded with what I had researched about multiculturalism history and also showed them where to find the Act on the Government of Canada website.

After Student B’s engagement with the box, she completed Survey 2. Student B also found the app “easy to navigate and straight forward” and felt that the app was overall a “a great tool.” Unlike Student A, Student B found the “point and shoot” aspect tricky because, if the room was dim or dark, the camera might not pick up the image triggers. She found the archive box to be “interactive” and “immersive” due to being able to touch the objects and explore the historical event thoroughly. Student B found that she learned a lot through this experience and was able to understand critically about the Komagata Maru (which she had no prior knowledge of) and gained an “understanding of the event and its outcome/effects on society.” In the end,

Student B felt “more confident” about learning history through this creative approach and could also “imagine teaching history using a different outlook and technology tools.” Overall, the session with Student B was positive, with Student B stating that AR “can help students be engaged with history.” This sentiment is furthered by Student A who stated that AR and the archive box “can help navigate difficult knowledge through engagement.” These early workshops with the participants affirmed my hypothesis that providing tangible evocative objects (Turkle, 2007) for students of history can spark curiosity.

On February 13, Student C met me at the Dahdaleh Building and we walked over to the Sensorium Loft. After signing the consent form and filling out Survey 1, we got started on the study. His first response after taking out the bronze plaque was to question if the objects in the box were real, and I had to reassure him that they were reproductions as he was hesitant to touch the objects. This felt similar to my experiences as a gallery docent where visitors were afraid to touch or even go near the objects. There is a level of knowing that one cannot touch the artworks, so being able to suddenly touch essentially an art installation piece in the form of an archive box can make a person uneasy unless reassured it was acceptable, and even encouraged, to do so. He started the augmented reality experience with the images. With the picture of the passengers aboard the SS Komagata Maru, he asked who they were, and I directed him to the book of passengers - that I handbound after finding the list of passengers from Simon Fraser Valley’s digital archives in 2014 - while also providing him with a brief overview of Baba Gurdit Singh (the merchant who advocated and organized the resistance against the racist immigration policies). Student C also asked why the passengers wanted to go to Canada if they were eventually going to be mistreated. Much like the other two participants, the workshops became a prompt for a facilitated discussion via the items in the archive box, all of which have been

helpful for them to better understand the Komagata Maru event. He then switched to the binder to read the photocopied newspaper clippings within it silently. After that, he asked who Immigration Inspector Malcolm Reid was, as he saw his name appear in the video, and I directed him to a photograph of Reid and provided some background on his role in this incident, including how he created barriers both during the event spanning from when B.C. received their first telegram, and during the eventual court cases that followed. “He gives the ick factor,” Student C commented, responding to how his eyes looked directly into the camera. This comment was interesting as it echoes a similar feeling I had in the archive, where I almost felt Reid’s ghostly presence emanating through the photograph. Student C summed it up as the “ick factor.” This resembles Tuck and Ree’s understanding of hauntings and ruins, in the sense that spectres that render the “empire’s foundational past impossible to erase from the national present” create a sense of persistent unease (Tuck & Ree, 2013, p. 654). The “ick” factor is this unease that the spectral presence of Malcolm Reid exudes. This “ickiness” is a warning for the viewer to be aware of when creating further inquiries in these historical events.

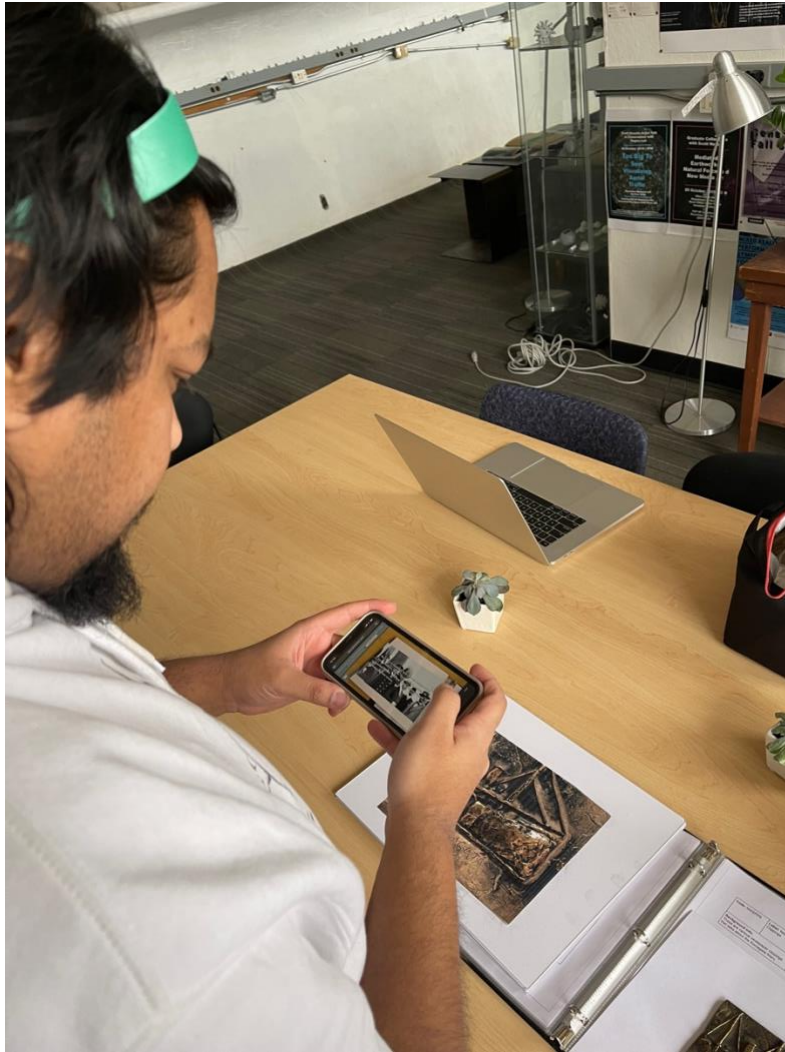


Figure 9 Student C engaging with the archive box, February 13, 2024, Sensorium Loft, York University

Student C then decided to try out the AR components in some of the objects, this time with Pictarize as the web-based AR application. He started with the Bronze Plaque. He visibly rolled his eyes during the apology part of the video where a list of dates showcases when the different constituents apologized for the behaviours of their predecessors that led to bloodshed, and commented that he hates official apologies. Official apologies are very common in Canada and, while it opens up a conversation on accountability, it also feels performative. Like Student A, he hates how apologies do not really do anything and are often repetitive. Student C then completed Survey 2 and found that the Pictarize app took a bit of time to get used to, to unlike

the previous AR app website, WebAR Studio. Otherwise, he liked how each digital component in the AR correlated to a specific image rather than a vague description of the image triggers. Student C liked how he learned about one historical event rather than multiple events crammed into one experience. He felt that in this format he was able to “follow along on that journey,” alluding to the immersive ways of engaging with the archival artifacts and digital tool. Like Students A and B, Student C did not learn about the Komagata Maru prior to the exhibit and felt that he learned a lot about the historical event and key figures like Gurdit Singh. Student C believes that “creativity should always have a role in history...to convey a story, and specifically to convey history.” Overall, Student C’s experience with the archive box and AR works adds an interesting point regarding accessibility, since he felt he had to watch the video work twice. This also raises limits in terms of accessibility in general with this project, as the project relies on sight. In future iterations, attention to accessibility is greatly needed. Like the previous participants, Student C also liked the tangibility and exploration of engaging with history. Again, this echoes Turkle’s argument about the potential of object-based analysis and the a/r/tography practice to evoke questions, feelings, and unresolved tensions. In thinking about their future practice, Student C argued that creativity is necessary when conveying narratives of historical events, thus affirming the importance of utilizing creative methods in history education. Similarly, the other participants also mentioned the usefulness of implementing evocative ‘object-based experiences’ into classrooms (see Student B’s response as an example) to allow for a tangible engagement with history. Through this tactile way of learning, Student B was able to comfortably ask questions about what he was looking at how these figures are connected in the historical event. Student B and C’s responses similarly echo how a/r/tography offers a set of

practices that engages with objects (art) and evokes dialogue (teaching) about a particular historical event (research).

On February 15, I met Student D at the Dahdaleh Building and we walked over to the Sensorium Loft. After completing Survey 1, she started her engagement with the archive box. She commented that she has had experience researching in the archives. While touching the bronze plaque, she commented that “this would be great with primary school kids,” referring to how learning history can be made tangible for her specific P/J stream (Kindergarten to Grade 6). This may indicate that the project itself can translate to possibly younger audiences who may be fascinated with the tangible and sensory objects. She then started looking at the images and decided to go through the binder first. She silently read through the instructions and then went back to the images for a closer look. She started with the photograph of the passengers and asked why they are wearing English clothing; I responded, by describing the influence of colonialism on the East. I only responded when asked a question or if I needed to ask questions. In the first round of the study with Student A, I did not offer a guided facilitation, and two things happened: the atmosphere was awkward, and my participant looked nervous and asked if it was ok to even touch the pieces or even talk. I deduced very quickly that facilitation was needed to break the awkward, “don’t touch the artwork” barriers. Later, she looked at the newsprint clippings and made a comment about how language is used by oppressors to discriminate against marginalized communities. She talked about how she had completed archival research on a beach community in Manitoba who used specific language to covertly exclude the Jewish community (i.e., “we cannot accommodate for non-pork eaters,” etc.). She recognized and connected exclusionary language between the newspaper clippings, understanding that even newspapers needed to use

careful but noticeable language to covertly let marginalized communities know how the region subtly feels about them.



Figure 10 Student D engaging with the archive box, February 15, 2024, Sensorium Loft, York University

Given how I was guiding the participants with each object and providing additional context, I had asked the participant if this format was useful for her. She responded with, “I love learning through guided facilitation. I think it makes the history more interesting.” I believe this method was effective. I imagine that, in a classroom setting, students can break into groups and

analyze an AR-encoded object in the box. I imagine the teacher going to each group to guide and facilitate, and create pockets of discussions within the groups. I also imagine the teacher doing a consolidated debrief where they may ask the students what they have learned.

Afterwards, she read closely through the passengers list and was surprised by the ages of the passengers (most of the passengers were young men in their 20s). After reading through the book, she decided to try out the AR component which she needed assistance in starting up. In the video component for the Bronze Plaque, the participant was surprised that there is a day of remembrance for the passengers of the Komagata Maru: “Kids can engage better with history [through tangible objects],” she remarked. “Kids will be active participants if technology is incorporated more rather than bore them with textbooks. Kids love technology.” These were two comments that stood out to me because they demonstrated a sense of futurity where teachers might implement this project as an opportunity for students to explore and be curious about history, rather than engaging in the traditional rote memorization, and perhaps do a/r/tography as a practice that connects historical inquiry, authentic (archival) records, communicating with the past (through evocative objects), artistic media, and collaborative knowledge making.

After engaging with the box, Student D completed Survey 2. She “really enjoyed” the app experience and “learned quite a lot about the history of the ship, important players and its aftermath in the years following.” Through the app, she learned that by overlaying images with text and sound, it can create a “sensory experience while interacting with historical content.” Like Student A and B, Student D wrote about the possibilities of this project in her future classrooms, citing that this format of learning can be a “powerful tool in primary/junior classrooms to foster student creativity with technology, as they develop analytical historical skills – could be a more engaging method for students to present/share their work than simply

creating a PowerPoint or a poster.” Overall, the experience seems hopeful, in the sense that my goals for the project seemed to indicate a sense of change for history classrooms. Student D was excited learn about how to use the AR technology to create artworks. Thinking about how Students C and D were struggling to use the Pictarize software has made me think that the toolkit should include a very detailed instruction manual on how to use Pictarize. This is further affirmed by Student D as she believes that “a toolkit will help [the] teacher be interactive with kids.”

On February 16, Student E met me at the Graduate Students in Education Lounge in Winter College (Sensorium was booked for that day). After signing the consent form and filling out Survey 1 (see previous subchapter), I guided her on how to approach the box, as she was hesitant at first. After she opened the box, she pulled out a photo of the portrait of the British Columbia Members of Parliament who had encouraged the hatred against Indian immigrants with their constituents while advocating for a whiter B.C. and Canada, and asked who they were. She scanned the QR code and then scanned the photograph and felt the need to answer the prompt question on whose voice was not being heard vs. heard. We had a discussion on how power affects the voices of advocates, the passengers, etc.

Student E then activated the photograph of the passengers and asked about the quotations in the digital components in the AR works, and I told her about Gurdit Singh’s book that detailed his perspective of the entire event. She found it interesting that the quotations from the passengers contradicted the quotations from the MPs in the group portrait, stating that “history classrooms are not given perspectives” (referring to how history classrooms refer to the mainstream narratives and not intertwine other perspectives). Our conversation switched to textbooks and how some schoolboards and schools are no longer using textbooks, since one of

her teachable areas is history. She shared that she is not opposed to removing textbooks in that she feels that history teachers need to interact more and have students engage with history in active ways (especially since there is little difference between the academic—understood colloquially as a class for ‘smart’ students or students planning to go to university—versus applied courses—understood colloquially as a class for ‘not so smart’ students or students who may take it just to fulfill the requirements for graduation).



Figure 11 Student E engaging with the archive box, February 16, 2024, Winters College room 113B, York University

Student E was interested in connecting the past with the present, stating that “nothing will change if we stay silent.” I had asked if she learned about the Komagata Maru in her high school or university experience, to which she responded no. Her high school history class did not teach

different perspectives within Canadian history, and she perceived that “there’s a dominate [sic] narrative in history and everyone else is in the background.” She then proceeded to talk about the video piece detailing the historiography of the Komagata Maru and was surprised by the politics of refusing entry to a ship. When she read the passengers list, she had asked why many of the passengers were young men in their 20s, and I provided more information about the passengers, where I found the passenger list, and why they decided to journey to Canada.

When Student E picked up the binder to read through it, and she used a magnifying glass to do a careful reading of the newspaper clippings. She observed that the newsprints indicate who is “Canadian” and who is not on the basis of skin colour and country of origin (people from the Mediterranean were not considered “white”). She comments that “there is a lot of othering, I would say” and “the headlines are screaming *bias*.” She then turned her attention to the photograph of Malcolm Reid with a group of reporters. Looking at the two images, Student E commented that the BC newspaper clipping seems “more skeptical” when compared with the *Toronto Star* newspaper clipping, which “seems to have more faith” in both the intentions of the passengers and the decision making from the government. She also commented that the voices of the passengers are not included in these news articles. Student E then turned to the photograph of the military and tried to answer the prompt question by stating “it is hard to know which is the truth since the officer has more power.” She felt that she could not trust the officer’s words because of this power and role.

After engaging with the box, Student E then completed Survey 2. Student E found that the app was “overall easy,” but found that it took “a while to load the app at first.” This could be because of the project’s overall file size being somewhat large, or network connectivity issues. Like the other participants, Student E also felt that the experience was very immersive but also

found the prompts to be “thought-provoking.” Since Student E is a history major in the concurrent stream, she found that this form of learning “sparked more thoughts, curiosity, and critical thinking...as opposed to simply reading historical narratives in a textbook.” Overall, Student E’s experience sparked further conversations in this dissertation about the need for creativity to thrive and be encouraged and experimented upon as a form of critical thinking. After filling out Survey 2, Student E felt that having a guided “tour” of the objects in history was “definitely better” and “useful,” and that having the AR and objects made history much more engaging. The exchange with Student E shows that the role of creative/interactive pedagogical tools can create a sense of curiosity as well as critical engagement and wonderings through interaction. Student E also picked up on other contexts within her interaction with the box and app. For example, she picked up on the concepts of power dynamic when looking at photographs of the Immigration Officer and MP H.H. Stevens with the media and we had a discussion on how event-specific narratives are portrayed through media based on who has access to those channels. She picked up these narratives through a combination of questioning and analyzing the photographs before using the AR to be prompted on power dynamics. Student E was also the only student to willingly discuss via the AR prompts, possibly because it gave her confidence to talk about the objects. In my experience trying to facilitate and partake in discussions for tutorials and coursework, it can be nerve-wracking to try and speak up regarding your thoughts. Prompts allow students to focus their opinions via a specific topic or question, allowing for a flow in discussions as well as a motivation to voice opinions.

The overall results of this phase of the study indicates an interest in having object-based and app-based experiences, echoing back to Turkle’s evocative objects that invoke “a sense of vocation to becoming attentive to the details of people’s narratives” (Turkle, 2007, p. 51). The

“object-to-think-with,” in Turkle’s words, allow educators and students to begin to question the sociological and historical implications of these objects. The attentiveness to details and putting objects together to create a bricolage narrative allows viewers to become curious about the narrative, its components, and its construction, often positioned in contrast with singular historical narratives. Applying this rhetoric to students in history classrooms, objects can facilitate an educational experience that evoke emotions and questions as possible points of departure for further critical inquiry. Through this type of exploration, students can “reflect on an object’s role in a significant life transition—an object serves as a marker of relationship and emotional connection” (pg. 5). Students can invoke these aspects by critically analyzing the object, and educators may also ask their students: *what is the object? Where is it from? What is the era? What does the object represent?* As a result of the participants analyzing and discussing the objects, we see a sense of *wide-awakeness* (Greene, 2000) as, through the “objects-to-think-with,” students are stirred “to imaginative action, and to renewed consciousness of possibility” (Greene, 2000, p. 43). This sentiment is further invoked after inviting the participants to create their own historical inquiry projects in the next few sections. The next section will examine survey 3 on the workshop that was designed to prepare the participants for contributing to the project.

6.4 The Workshop (Survey 3 & Observation)

This section discusses the workshop (Appendix G) and Survey 3 (Appendix H). The workshops occurred on campus not long after our initial meetings: Students A and B on January 12, Student C on February 13, Student D on February 15, and Student E on February 16.

As part of the a/r/tographic method, I showed the participants how to navigate the Library and Archives Canada website and how to make the AR works. The workshops were done after

the participants completed Survey 2 on the same day. The PowerPoint was done via Google Slides and included step-by-step information about how to find archival artefacts and a step-by-step guide on how to make AR work with Pictarize. Students A, B, and E followed along with their laptops (all throughout the workshop), while Students C and D observed as I provided step-by-step instructions. Student D has had experience researching using the Library and Archives Canada's collection search, and so my workshop for that portion was mainly a short overview for her. I had asked her what her experience was like researching into the archives. She responded that she knew how to perform a basic search of the archive, so for her workshop on archival research, I showed her how to use the advanced search tool in the LAC search engine (including the use of Boolean operators). After an overview of showing her how to search for archival images, I also showed her step-by-step how to make the AR works. Even though both Students C and D observed and did not follow along with their laptops, they did ask me to repeat certain aspects of the workshop multiple times as if they were going to commit this step-by-step to memory. I did reassure them that I will send them the PowerPoint and be available to help them, which seemed to give them a sort of relief. This makes me wonder about the lasting impacts of rote memorization of skills from secondary schooling assessments (i.e., exams, tests, presentation). For Students A and B, I showed them how to use WebAR Studio, demonstrating the features and inviting them to consider what they wanted to use for the digital components of the work.²² After finding out about WebAR Studio's self-delete policy, I shifted to Pictarize Studio for the second round of the study. Not only is Pictarize opensource, but it also uses a QR

²² I was later informed during the exhibition that the works would be deleted off their server unless we (myself and the participants) paid their subscription package. A big component of my own personal pedagogy is to ensure open-source access to students and educators. So, after the exhibition, I had to inform Students A and B about a different software and that they were more than welcome to use to recreate their work for the second exhibition or for the final defence.

code to access website-based AR (webAR), and minimal knowledge of coding is needed. There is a slight learning curve, but like WebAR Studio, the process to create a series of work is a repetitive process. The majority of the students followed along with their laptops while some observed and later asked questions. After the day's session, I emailed the PowerPoint presentation that provided a step-by-step walkthrough of everything I covered in the workshop.

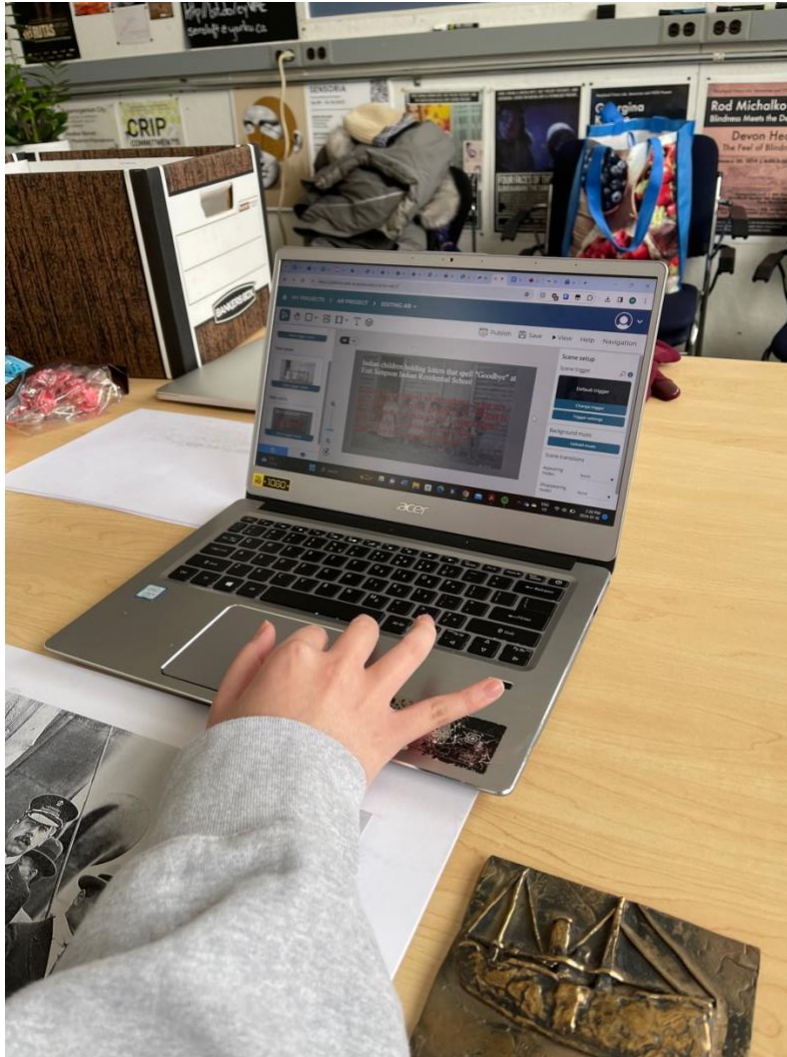


Figure 12 Example of workshop, January 16, 2024, Sensorium Loft, York University

After the workshop, I had them complete Survey 3, which only posed one question: How did you feel about the workshop?

The participants felt that “the workshop was very helpful” (Student A), “thought out well, and was displayed thoroughly with information to ensure that we [the participants] had what we needed to use it on our own time” and it “was a great way to learn how to engage in AR tools and navigate how to use them within a classroom” (Student B). Other participants have shared their excitement in getting to create their own AR works using descriptor words like “excited” (Students D & E) indicating a sense of determination in experimenting with the program. All five participants thought about the transferrable skills that this method of learning could introduce to their future classrooms. Student A brought up how she could implement AR to “get students to engage with history, social and political issues, and facilitate meaningful discussion within the classroom” while Student B thought about the potentials that AR can have in children’s history education as well as other subjects, thinking about her own teaching division in P/J where learning is often interdisciplinary. Student C declared in the survey that learning this program is “beneficial...for [his] thesis as well as for [his] future teaching career.” Student D also found the workshop to be very helpful and felt that this project could delve “deeper into less known chapters of Canadian history” and was “hoping to share this app with other teachers” interested in creative-based lessons. Lastly, Student E also expressed similar sentiments, reflecting on how the workshop and creating AR works can be oriented towards her future teaching career by introducing ways to “engage [her] future students in historical archives through AR” alongside hopes that she might make “history meaningful for my students through the use of archival documents and AR.”

Overall, this survey echoes back to Byrd’s (2011) concept of *cacophony* and Tuck and Gaztambide-Fernández’s (2013) future-oriented approach to curricula. Through the survey and the conversations I had with the participants, the majority of this experience has been oriented

towards PSTs' considerations regarding future pedagogies they may employ. The participants, while they were excited and interested to create their own AR works and researching the archives, were more interested in what this method could do for their own pedagogies as future teachers. This leads me to wonder what can be and how can this project offer a tangible way of intervening in regular classroom structures and pedagogies, while also creating meaningful approaches to class content and difficult knowledge.

Overall, this first phase of research produced a promising reimagining of how future history classrooms can be a site for critical inquiry. These pre-service teachers felt that the experience up to this point already offered practical insights and possibilities for both the teacher and the student. This applicability to practice was particularly important given the context at the time, with certain subjects undergoing the de-streaming process requiring a wider range of additional supports to aide in engaging students with diverse needs in history education.

6.5 Concluding Thoughts

This chapter offers a detailed account of how pre-service teacher participants engaged with the archive box and augmented reality toolkit, revealing the transformative potential of creative, inquiry-based history education. Their experiences and reflections make visible the layered pedagogical impacts of this research-creation project. The findings not only affirm the importance of multimodal and arts-based methods for engaging with traumatic histories but also demonstrate how the theoretical commitments of critical race theory, intersectionality, a/r/tography, hauntology, and the null curriculum outlined in Chapter 3 are mobilized in tangible, relational, and pedagogically generative ways.

The practice of a/r/tography, as a methodology that blurs the roles of artist, researcher, and teacher, is central to how participants moved through this project. The archive box (part

artwork, part research, and part pedagogical tool) functioned as an a/r/tographic site, inviting layered ways of knowing: touching, seeing, questioning, narrating, and imagining. Participants did not simply receive history as content, but enacted it through tangible and embodied inquiry, storytelling, and meaning making. Their engagements, facilitated by evocative objects and AR prompts is not merely done *about* people or the past, but *with* and *through* relationships, questions, and aesthetic experiences with records from the past.

The affective dimensions of this research—evident in the participants’ surprise, frustration, confusion, and curiosity—resonate strongly with the concept of hauntology (Tuck & Ree, 2013). Participants encountered spectres in the archive: absent presences, like the missing voice of Prime Minister Borden; persistent figures of power, like Immigration Officer Reid; and silenced stories, such as those of the Komagata Maru passengers. These hauntings disrupted linear, sanitized versions of Canadian history and invited participants to confront the ways historical violence continues to echo in the present. One participant’s reaction to Reid’s photo (describing the “ick factor” of his direct gaze) reveals how photographs can provoke a visceral reaction. These moments ask educators and students to linger in discomfort and engage critically with what remains unnamed in dominant historical narratives.

Critical race theory and intersectionality were also enacted through the participants’ reflections on power, voice, and systemic exclusion. Participants repeatedly identified whose stories were missing, whose voices were amplified, and how whiteness continues to structure historical memory and curriculum, as well as expressing a desire to challenge these dominant narratives in their future classrooms by integrating marginalized perspectives and centring lived experiences that have historically been silenced. Their responses to newspaper headlines, political speeches, and photographs of colonial figures reflect an emerging critical literacy rooted

in anti-racist and anti-colonial analysis, which aligns with Crenshaw's insistence on making visible the intersecting structures of power that shape whose histories are told and how.

The project also brings into focus the enduring presence of the null curriculum (Eisner, 1994)—what is not taught and why it matters. Participants' repeated surprise at learning about the Komagata Maru incident, or their realization that they never encountered these stories in their formal education, speaks directly to the consequences of curricular omission. The absence of diverse histories creates a sense of disconnection, even loss—what Maxine Greene (1988) describes as “rootlessness.” However, they also generate a pedagogical opening: a recognition that teaching is not only about delivering knowledge, but about curating possibilities for critical and imaginative engagement. This can also be seen through the participants' encounters with the archive box through which they were invited to engage critically with tangible and digital components drawn from state archives.

This phase of the research also foregrounds the pedagogical potential of multimodality. The AR components, paired with tangible archival reproductions, offered a sensory, layered, and interactive form of historical engagement. Participants often described the experience as “immersive,” “thought-provoking,” and “curiosity-inducing,” pointing to the ways in which non-linear, multimodal formats can activate critical thinking and emotional resonance in ways textbooks often cannot. This supports what Tuck and Gaztambide-Fernández (2013) describe as future-oriented pedagogies, that resist assimilation and instead imagine education as a space for transformation, relationality, and reparation. The participants' reflections were not limited to their own experience but consistently extended to their future pedagogical practice. They asked: *How can I use this in my classroom? How will my students respond to this kind of engagement? What tools will I need to replicate this experience?* This future-oriented lens affirms the

significance of engaging teacher candidates in experimental pedagogies, not only to enrich their understanding of content, but to expand their vision of what history education can be.

In sum, this chapter offers compelling evidence that the theoretical frameworks outlined in Chapter 3 are not abstract ideals, but living practices that can be enacted in classrooms, teacher education, and collaborative research. The archive box, augmented reality components, and guided facilitation created an encounter where students engaged critically, creatively, and ethically with the past. In doing so, they enacted a form of education that is responsive to historical injustice, attentive to silences, and open to multiple ways of knowing. These findings lay the groundwork for the next chapter, where the participants' works are mobilized into a public exhibition.

Chapter 7: The Exhibitions: A/r/tography and Pedagogy

The final phase of the study included an invitation to the participants to contribute their own historical inquiry projects using the a/r/tography methods I modelled in the previous chapter. This phase included a workshop to teach participants how to find archival artifacts and how to make their own AR works. By publicly sharing their works in a gallery space, I hoped to demonstrate to the public that, if given the opportunity, students can become thinkers and makers via the a/r/tographic method. This chapter builds on the workshop and discussions from the third survey that inquired into participants' experiences in the workshop detailed in the previous chapter, and describes their contributions to the exhibition and the process of prepping and installing the exhibition. In this chapter, I also analyze the opening receptions and discussions from data collected through the guest book, and debrief the final survey on the participants' overall experience. The data collected from Survey 4, my observation notes, and the comments in the guestbook from visitors will be analyzed thematically. By doing so, we get an overall understanding of the various tensions, themes, and reimaginings for this project and the pedagogical potentials for this work in future classrooms.

7.1 Contributions to the Exhibitions

This section is an invitation to glimpse into the participants' works which were compiled into an AR catalogue (Appendix J). Throughout their time doing remote work, my role in this phase of the research project was to provide ample feedback and assistance when asked.

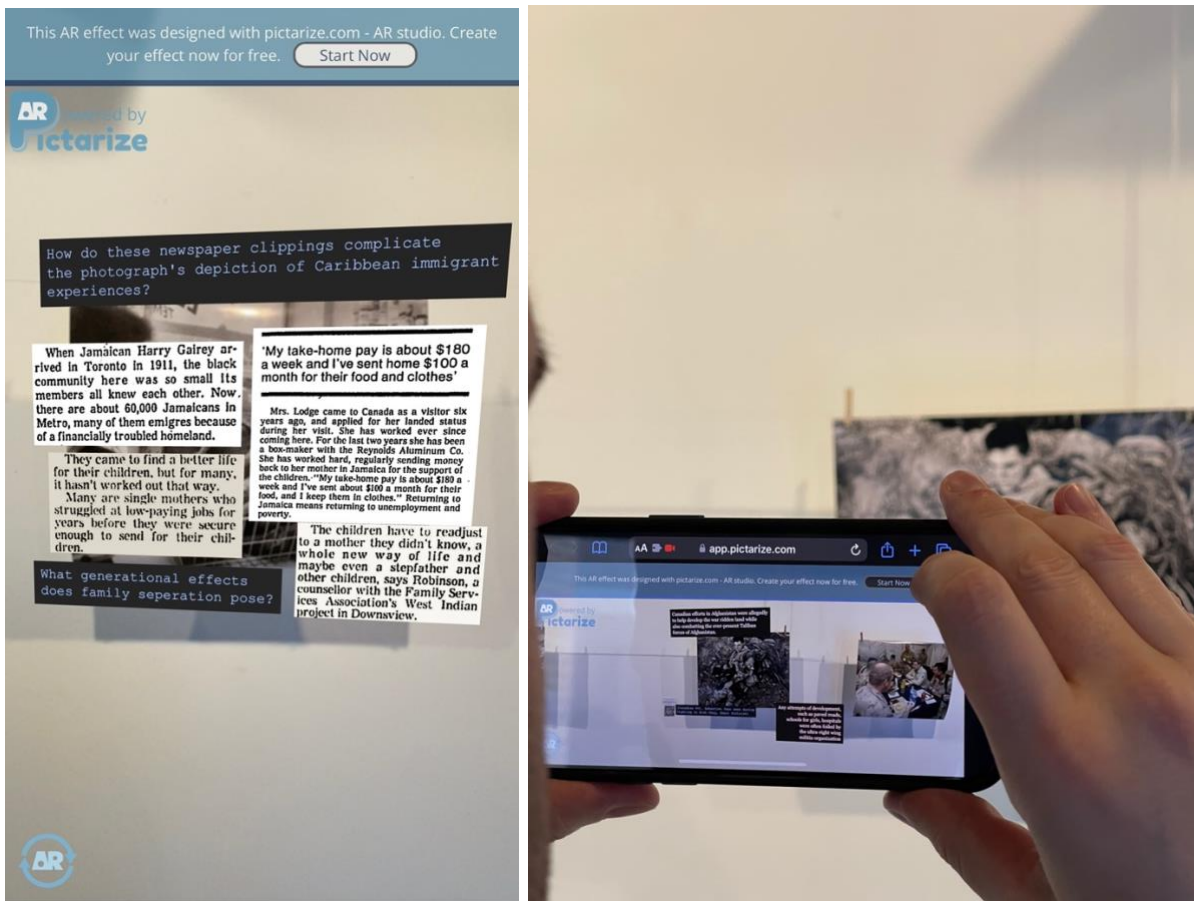


Figure 13 Examples of AR works

Student A researched two historical events: Canada’s involvement in Israel and Palestine (1 work) and the Residential Schooling System (3 works) (Library and Archives Canada, 2024a, b, c). As previously stated in Chapter 7, during initial conversations and observations, Student A did not have a comprehensive history education, and as such, many historical events like the Residential Schooling System were overlooked due to her former teacher being uncomfortable teaching about traumatic histories. Student A would receive feedback from me for each work she made, and I would test out the works either in-person with her or remotely. Our conversations ranged from thinking about language within her works to the use of colour as intentional symbolism (e.g., using orange to represent Every Child Matters movement). For the Palestinian work, the AR digital component highlighted the archive’s caption associated with the photograph

alongside a prompt asking viewers what can be said about media depictions of global crisis. For the Residential School series, all three works included excerpts from the catalogue. Student A also experimented with visual indicators by adding an orange background to one of her digital components.

Student B did her historical inquiry work on Hill 355 (4 works): Canada's military expedition during the Korean War which aided in South Korea's independence from North Korea following incursion from the North into the South during the 1950s (Library and Archives Canada, 2024d, e, f, g), and the ensuing proxy conflict among international cold war belligerents. *Hill 355* refers to the height from sea level near the peninsula where troops would be stationed (Veterans Affairs Canada, 2023a). Student B decided on this historical event after going into a "rabbit hole" of wars that Canada fought in and picked one that she never heard of, and then did deeper archival research from there. Student B would also ask for feedback, mainly to test out the QR code. Like Student A, Student B included excerpts from the catalogue. For one of the works, she included a link that can be tapped on one's device and will take the viewer to a video about Hill 355 and the soldier's experience fighting in the Korean War.

Student C initially wanted to do his historical inquiry on the Bangladeshi migration into Canada in the 60s, but the archival research in many databases did not yield results from that time-period. Instead, he decided to do his project on Canada's involvement in the Afghanistan War (3 works) (Library and Archives Canada, 2024h, i; Veterans Affairs Canada, 2023b). Student C would ask for feedback via email or Zoom as during the remote work time, the CUPE 3903 union strike had started which prompted many classes to go online, so no in-person feedback was given. He decided on this historical event as he mentioned his prior interest with Canada's involvement in other nations (especially in the Middle East and parts of South Asia).

Student C's AR components also included snippets from the AR catalogue as well as some prompting questions on whether hatred is something that is constructed through these war missions.

Student D's historical inquiry is on the murder of an abusive Newfoundland trader and the Inuit man wrongfully convicted of his murder (5 works) (Library and Archives Canada, 2024j, k, l, m; Gale, 2016). Student D has a background in history for her Social Science teachable and really wanted to do her research on an event that is atypical to mainstream history education. Feedback given to her was solely via email or text. I would test out the works and then message back with suggestions (e.g., thinking about text, or ways to navigate sensitive topics). Since Student D has had experience doing archival research, she was comfortable contacting archives for digital resources. Student D's AR components included newspaper clippings on the trial, photographs of the accused mugshots, and other archival photographs like dog tags and photographs of Inuit explorers.

Lastly, Student E's historical inquiry project was on the Caribbean diaspora in Toronto (4 works). She found most archival images from the Toronto Public Library (Toronto Public Library, 2024a, b; The Globe and Mail, 2024; Humphreys, 2021). Her feedback also came in the form of emails. Student E's AR components included a video link that takes viewers to an interview on the Caribbean diaspora in Toronto. Other AR components included newspaper clippings on media's point of view on Caribbean immigration into Canada and Caribbean events.

All the participants contributed to the AR catalogue. The excerpts within the catalogue ranged from historical backgrounds into their chosen event(s), to reflections on how they felt about learning about the historical events. Student A's excerpts included a reflective analysis on learning about Residential Schools and the Palestinian genocide. Student A brought up how it

was a “privilege to witness” the juxtapositions between how media portrays events like the Palestinian genocide (calling it a conflict) versus first-hand accounts and stories from Palestinians directly.

Student B’s excerpt was a historical account of Hill 355. She provided context to the event. This excerpt showcases her research into the event as she decided to talk about a specific aspect within the Korean War rather than an overview of the Korean War. This inquiry project portrays a sense of multiple perspectives within a broader event to show how even in well-known, bigger events, there are smaller narratives within history that often go overlooked.

Student C’s work into military efforts in Afghanistan also echoes Student B’s method of looking into a small theme within the bigger historical event. In Student C’s case, he decided to delve into the causes and effects of Canada’s presence in Afghanistan. He posed the question: *was it that the presence of the military group encouraged the hatred?* Through this question, he wrote about the Canadian military presence and its impact on Afghanistan’s infrastructural development (i.e., roads), albeit destroyed by the occupying, ultra-right-wing militia organization (the Taliban).

Student D’s historical inquiry project was inspired by the book, *Thou Shalt Do No Murder: Inuit, Injustice and the Canadian Arctic* by Ken Harper (2017). Student D’s excerpt provided information about the colonial invasion of Inuit communities via the legal justice systems. Student D’s excerpt provided context into a historical event not commonly taught in schools (according to her and the other participants).

Student E’s excerpt into the Black Caribbean diaspora examines ways in which images can “reframe and re-envision the stories and histories deemed integral, valuable, and important in our nation” [direct quotation from Student E]. The combination of images and augmented reality

reveals a digital storytelling project examining the creation of spaces of belonging in mid-late 19th century Toronto.

For all these excerpts in the AR catalogue, there is a sense of witnessing. The participants, as they research, became witnesses to histories that are lesser known in history education. The participants activated historical events often relegated to ‘just the past’ into contemporary understandings of historical events through their AR digital storytellings. In the next section, I discuss how the exhibition was prepped and installed, taking into consideration how curation can impact visitors’ experiences with the works.

7.2 Prepping and Installing the Works

Before the start of both studies, I had researched where I could possibly house this exhibition. As part of the ethics process, I had to also include what I would write for the initial inquiry email (Appendix C). My search started with the Gales Gallery and Special Projects Gallery that are run by the Faculty of Art, Media, Performance & Design. Unfortunately, both exhibitions were booked for upcoming student events. This led me to the Eleanor Winters Art Gallery (EWAG) which I thought was abandoned but turns out it technically was not abandoned...just not well advertised. Trying to get into contact for the gallery was challenging. On the EWAG website, it stated it is managed by the Winters College/AMPD department, but in reality, it is run by the Student Clubs and Leadership Department (SCLD). After contacting the manager, I then filled out a Temporary Use of University Space online form which included details for the opening and closing receptions and what the space was used for. Posters were also approved for distribution (Appendix I). For both exhibitions, the works were installed at the Eleanor Winters Art Gallery (EWAG) at Winters College. Not much is known about Eleanor McRobie Winters (whom the gallery is named after) other than that she is the wife of Robert

Henry Winters (founder of Winters College) (AMPD, 2024). Her story is primarily overshadowed by her husband's accomplishments, but was made an Honorary Fellow of Winters College. It is ironic that this exhibition is about finding voices from the past and examining silenced histories, yet there is no information about the person whose name is on the door other than who she is married to. EWAG was managed by the School of the Arts, Media, Performance & Design department but in recent years transferred management to the Student Clubs and Leadership Department [S. Tchang, personal communication, January 18, 2024].

Unfortunately, when I booked this space, I was informed that my exhibition would be the first event for the gallery since the COVID-19 lockdown. So, you can probably imagine my surprise (and later frustrations) to see the conditions of the walls (nail holes and adhesive residue), and some of the light bulbs for the lighting track were not useable.



Figure 14 Empty gallery space, Eleanor Winters Art Gallery, York University

On January 18, I picked up the keys from the manager and headed to the gallery to measure the walls and create a gallery floor plan. I had decided (for both exhibitions) that the students' archival objects/photographs would be printed at large scale and affixed on the larger wall, while smaller photographic prints of the process would be on the smaller wall on the left, since the right wall had wire covers which made the wall unusable. I would then add a couple of plinths to the centre of the room for the archive box I made. On January 19, I got to work on repairing the walls. After removing nails and adhesive residue, I then patched the holes on the walls with plaster and waited for it to completely dry. I then sanded the walls before painting it and the plinths during the early hours on January 20.

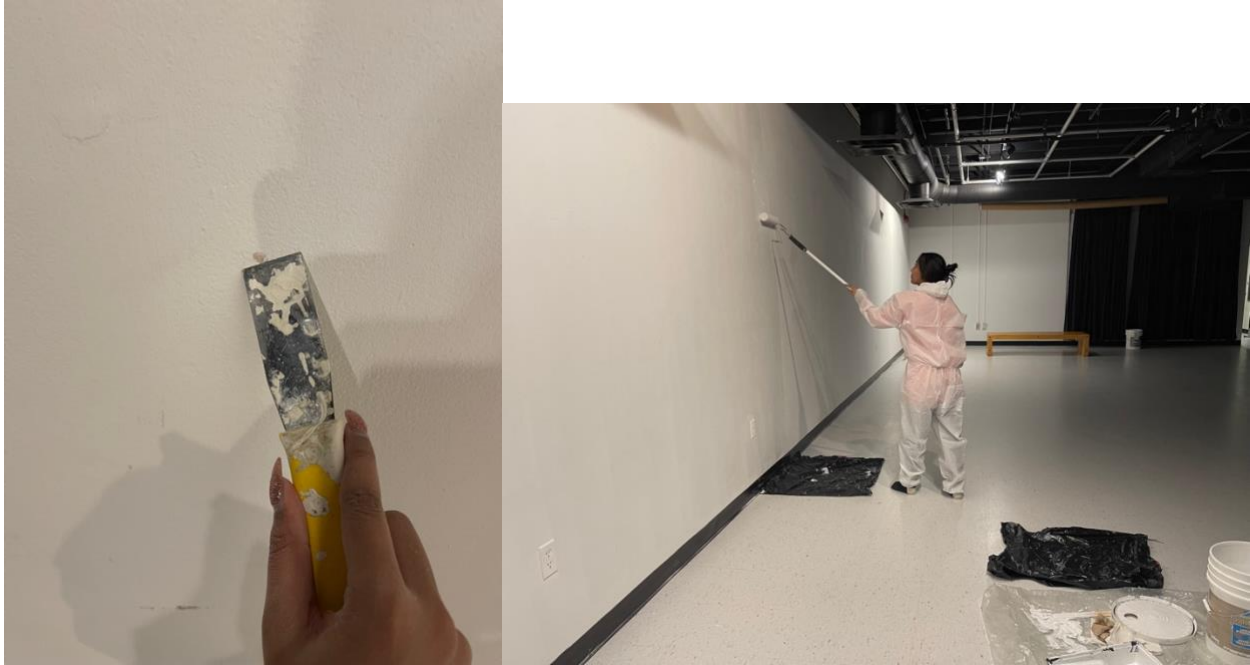


Figure 15 Prepping the gallery space, EWAG, January 19-20, 2024

After the paint dried, I spent the day of January 21 installing the works on the wall. Initially, I had thought to affix the works on the walls with low-tack adhesives or nails and magnets. However, after discussing it with Dr. Moser and thinking about ways to subvert the traditional white box, I took inspiration from film photographers who would hang their prints up to dry. This evokes Stoler’s notions of the darkroom as a place for archival photographs to reveal “the uneven presence of what was imagined as the possible, the tension between what was realizable and what was romance, between plausible plans and implausible worlds” (Stoler, 2008, p. 108). The “darkroom” becomes a space for exploration and narrative-building. For both exhibitions, I installed the works into three groupings to represent the three historical events that the participants researched.

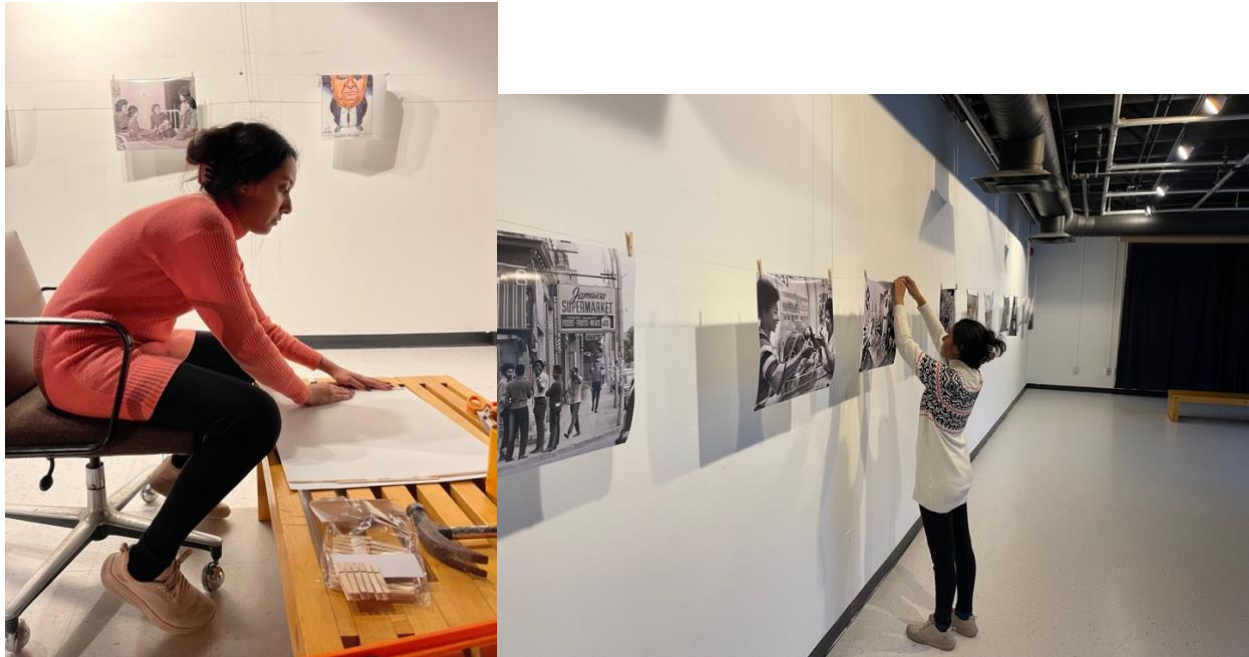


Figure 16 Affixing works on the walls, EWAG, January 21 (left) & April 3 (right)

For the hanging line structure, I (with the assistance of my partner) screwed one screw on each side of the walls (3 screws total) above the standard eye level and wrapped one end of synthetic white twine on each screw until taut. After installing each print with small wooden clothes pins, we re-tightened the twine to ensure the prints hung at roughly eye-level. For spacing, each piece was roughly 4 inches apart.

After installing the works, I had my partner swivel the lights to the correct position. Since there were not enough lights, to maximize lighting, I had him swivel the lights to be slightly in between each artwork to make an 'x' pattern. This not only maximizes the lights' radius, but also ensures that all the works were lit properly. I also had one light beam down on the archive box installation work



Figure 17 Lighting the gallery and works, EWAG, January 23

This section detailed the logistical and conceptual processes behind preparing the Eleanor Winters Art Gallery for the exhibition component of the study. From navigating bureaucratic confusion and physical limitations of the space, to making deliberate curatorial decisions that subvert traditional gallery aesthetics, this experience reflects the broader themes of adaptation and reclamation that run through the project. The process of restoring and reimagining the gallery space—as both a physical site and symbolic darkroom—echoes the project’s emphasis on bringing overlooked narratives to light. In the next section, I turn to the content of the exhibitions

themselves and the ways participants engaged with archival materials through their creative, augmented reality-based responses.

7.3 Exhibition and Receptions

This section will describe the events of the exhibition, and analyze and discuss the reactions and comments from the public. By doing so, we understand the potential for this project to be mobilized into a toolkit for history educators.

7.3.1 January 22 – Feb 1, Opening Reception on January 25

After installing the works, the exhibition was ready for the public. The first few days mostly students would come into the gallery, take a quick scan of the room, and then leave. I felt their timid engagement might be due to the intimidation of visiting a gallery space, with its implicit codes of civic behaviour, so I tried to greet visitors as they came in, but that did not work. Those who did interact with the space, mainly looked at the works and did not engage with the AR components unless prompted by me. However, the majority of visitor activity was mainly during the opening reception and the days after. This is typical for exhibitions as the hype for receptions is amplified.



Figure 18 Exhibition set up, EWAG, York University

The opening reception (held on January 25) had 25 people in attendance: mostly colleagues and students from the graduate program. It was at this moment where the technology decided to fail due to a slow server issue. It was also on this day that I received an email informing me that the works would ‘expire’ (as in self-delete) after a month (hence the switch to Pictarize Studio). Before and after the opening remarks, I quickly noticed the excitement when people tried out the augmented reality works. Again, this was possibly successful as I was there to facilitate and help troubleshoot/show how it works. Since the majority of the people in attendance were fellow colleagues, they mostly asked about the process and that of my participants (who unfortunately were not in attendance).

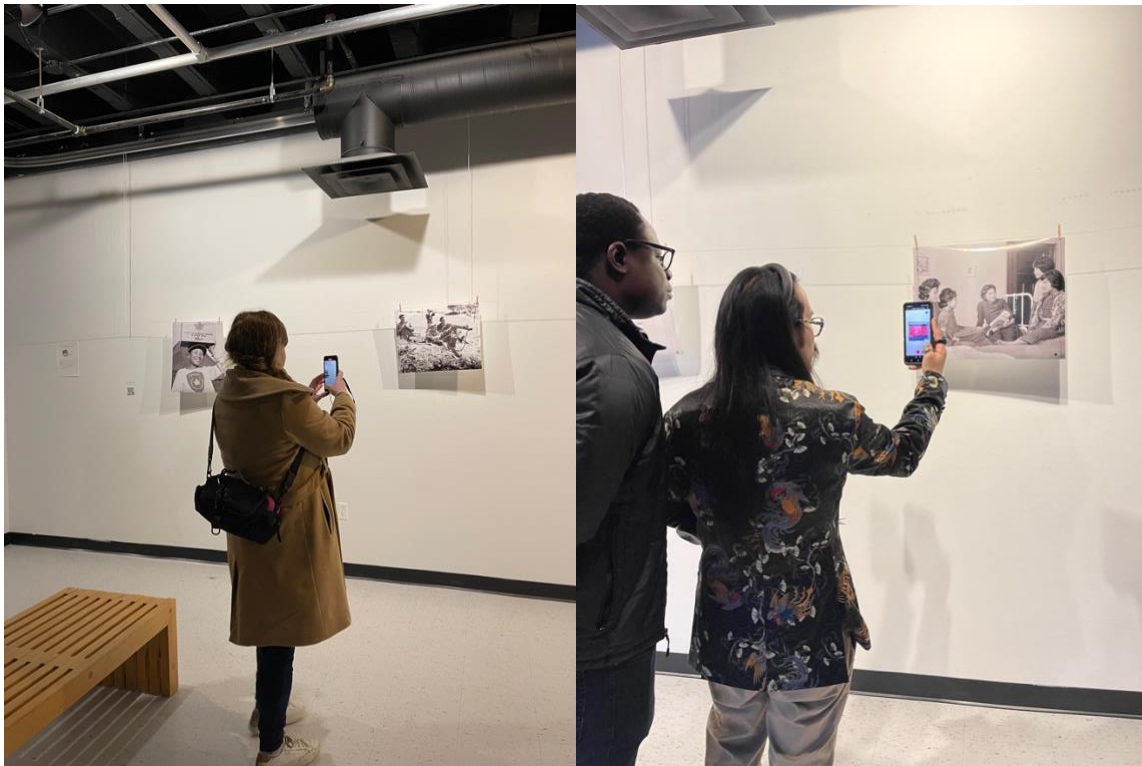


Figure 19 Opening Reception, EWAG, January 25, 2024

The guestbook prompted visitors to consider “what was something that surprised you?” (Appendix M). Some of the comments mentioned their surprise or intrigue on events they did not know. In particular, two visitors wrote about their surprise about or intrigue regarding the Korean War and the Komagata Maru, a historical event that is often not taught in history classrooms. One visitor was “struck by the overlaying of questions [in the AR components] that help interrogate the archive—and the weird moments that address us from the past...” while another visitor is “excited to brainstorm how I [the visitor] can apply this [augmented reality] in a math or business context.”

Two people visited the exhibit on January 26. One of the visitors then became my participant (Student E) after the visit. She was very interested in understanding possible ways to be multimodal in the classroom, especially since many teachers are already forgoing the textbooks in favour of articles.

On January 29, Dr. Kurt Thumlert’s EDUC 5860 Issues in Digital Technology & Education class visited the gallery to see ways in which one can explore AR tools and applications. The class walked through the gallery space, taking in each of the photographs. Many of the students decided to try activating the AR works with their phones. After talking about the research process, one of the students had asked about the experimentation side of my work (e.g., any setbacks, etc.) to which I responded by detailing the struggles of recruiting, failing, recruiting, failing again, as well as my frustrating experimentation with Unity x Vuforia.



Figure 20 Dr. Thumlert's class in the exhibition space, January 29, 2024

On January 30, Student A visited the gallery with three friends for a mini-private reception to make up for missing the opening reception. Her friends were intrigued about the research and asked Student A about the process. Student A would animatedly talk about the entire study and put emphasis on the usefulness of the augmented reality software on future creative-based assignments. After filling out the final survey, the group left, and shortly after, a visitor came to see the exhibit. The visitor started with the photographs on the behind-the-scenes process documentation. Then they moved onto the AR works and then asked questions about the research process and the participants.

Student B also visited the gallery and was happy with how her works were displayed. She visited for a short time and filled out the last survey. Later into the evening, a professor and two of her students visited the gallery. They were from the Media & Communications Studies

program. The group asked about the process and how the participants felt being part of the exhibition. They tried out the AR and commented on its potential in classrooms, especially navigating difficult knowledge surrounding the Palestinian genocide. The professor asked me how people reacted to the supposed “controversial piece,” to which I replied that that particular piece was the most successful in terms of its reception from the public. The supposed controversial piece is a caricature of Israeli Prime Minister Ariel Sharon with two black eyes (one black eye features the Star of David while the other features a Palestinian flag). On the bottom, the piece is labelled “Sharon Shiners” and the artist’s signature (Andy Donato) (Library and Archives Canada, 2023c). The AR questioned viewers about what they are seeing and asks them to critically analyze visual media. This caricature was created in 2005 for the Toronto Sun in response to Palestinian resistance against Israeli forces. This piece was considered controversial because of current discourse on the Palestinian genocide. One attendee complained that the participant should have also made work on the Jewish experience in Canada to “make things equal.” Others have praised the participant’s bravery in spotlighting a historical event that has been ongoing. In either case, this designation proves that history—and by extension the archive—is not just rooted in the past; rather, history is ongoing and continues to feed into the archive. Collections in the archive, like the ones created and presented in the exhibition, resonate with ongoing issues in the present.

On February 2, two people visited the gallery. They immediately went to the exhibition label to read what the project was about and slowly went around the gallery to look at each of the works. They then tried the AR works with success. Lastly, they glanced over the stuff in the archive box and then left. Later into the afternoon, a course director came to visit the gallery. She

was excited to see the possibilities that this project can have for teachers. She was excited to show her colleagues in the PDSB the AR catalogues.

7.3.2 April 2 – 5, Closing Reception on April 5

April 2 and 3 had no visitors (possibly due to the ongoing labour disruptions on campus). However, April 4 had four visitors: one colleague in the program, one colleague outside the program, one admin personnel, and one possible undergraduate student. The first three roamed through the gallery and asked questions about the exhibition: the process, who made the works, and how it was made. One of the visitors tried out the AR works and was surprised about the thought process behind each one. The last visitor on this day was hesitant to roam around and instead asked questions about the exhibition and provided thoughts on the project, such as the importance of technological skills in classrooms.

The closing reception had roughly 15 people in attendance and many from a mix between the participants' friends and family, people from the education graduate studies program and people who were not from the education program at all. For this reception, the three participants attended with their friends and family. They were excited to see the participants' works. One of the participant's mothers came up to me to ask about the project and comment that this type of work is needed in schools, especially connecting to current-day events like the Palestinian genocide and the Ukrainian-Russian war.



Figure 21 Set up for Part 2 of the exhibition, EWAG, April 4





Figure 22 Closing Reception, EWAG, April 5, 2024

Some of the comments in the guestbook includes comments on the visitors' AR experiences (Appendix M). One commented that "The AR experience allowed me to uncover this rich history in real-time; a beautiful way to teach history that I hope more educators adopt." Another visitor wrote about her "bright hope" for the future of history education, commenting that the exhibition on "Forgotten histories that [sic] were so beautifully presented...the face of historical [sic] education is shifting with the birth of new educators." Visitors who were also TAs wrote about how a project like this can be used as a "pedagogical intervention, as curricular attunement, [and] as a provocation."

This section offers a detailed account of both the public and pedagogical reception of the exhibitions, highlighting how attendees engaged with the artworks, augmented reality components, and broader themes of history, memory, and representation. From casual visitors to colleagues, educators, and artist friends, responses emphasized the transformative potential of multimodal, inquiry-driven approaches to history education. The exhibition sparked conversations around difficult knowledge, curricular gaps, and the possibilities of integrating AR into diverse subject areas. These reactions not only validate the project's relevance but also underscore its promise as a foundation for developing a practical toolkit for teachers. In the next chapter, I delve into how participants reflected on their experiences in the debrief (survey 4).

7.4 Debrief (Survey 4)

The final debriefs for the project took place in person at the exhibition site. The participants filled out Survey 4 which asked about their overall experience (Appendix K). After filling Survey 4, the participants were given a debrief letter (Appendix L) that thanked them for their time and next steps for this research. This section will examine the final survey and concluding thoughts on what the study means now that it is over.

Survey 4 asked the following questions: *How did you feel overall about contributing to an art book (catalogue)? How has the overall experience shaped your understanding on social justice issues/Canadian history? What questions do you still have about history? And how do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?*

For the first question, all the participants have expressed accomplishment, happiness, and pride over contributing to the art catalogue. They shared that conducting a project like this allowed them to strengthen their “digital literacy skills and learned what augmented realities are”

(Student A). Student B reiterated that her confidence contributing to the catalogue was due to the “clear direction and support from Sheetal [myself].” Again, this echoes to previous surveys and field notes on being facilitated; an experience which seems critical to both exploring the archive and collaboratively co-creating historically-grounded artworks.

The second question yielded similar comments on “the importance of centering stories and histories that are often overlooked and erased in the Canadian nation” and how creating experiences like AR “allows people to challenge social justice issues and amplify the voices of marginalized peoples” (Student E). On the flipside, even though Student D felt like the others, he felt that by limiting to the Canadian archives, it still stifled the work he wanted to create.

The third question raised interesting points from the participants. Student A asked: “How can we broaden our knowledge about Canadian history and connect it to global politics? (e.g., Middle Eastern politics),” which I feel embraces a similar sentiment to Student C in the previous question. Student B asked: “how can we become further aware of these events and how do we find out about them?” Student C pointed out that there should always be questions as, “if someone does not have questions about history, then they are the pinnacle of ignorance and arrogance. Delving further and further into history should always incite more questions, as this project has incited for me” (Student C). Student D, in thinking about the purpose of the project, questioned “what engaging with history can look like, and who can be a historian, especially when using digital technology. Using a similar project in primary-junior classrooms can help make younger students into historians engaging with history with unique mediums” (Student D). Similarly, Student E asked: “where do we go from here? I am wondering if invaluable histories we have shared today and continue to learn about will influence us to make changes and not repeat history.”

The last question on the possibilities for this project to translate into the classroom experience yielded similar results from all participants. Some of the participants cited AR as a “valuable tool that many teachers can use for history classes,” especially in thinking about the “digital age of technology that dominates the learning space” (Student A). In thinking about art-based methods, Student B, C and D “found it engaging and intriguing to participate; thus, I feel students will feel the same” (thinking about motivations to learn) (Student B). Student C also stated a belief that there is a space for art-based methods to be used in math classrooms, commenting that “It would be a better way to engage a wider range of students for sure. I think with the progression of AR and AI tools, it is very necessary to use such tools in the classroom, so they don’t fall behind and become relics themselves.” Student D felt that expanding use of multimodal approaches can “reach younger students with historical research and transform traditional history lessons into a creative process” as well as allow learning to be “enjoyable” instead of tedious or dull (Student D). As a history major, Student E “would love to allow students to create their own AR pieces to bring forth their own histories or histories they find of interest to them. This project is a tool to make history meaningful and responsive for all of our students” (Student E).

In analyzing these responses, I am reminded of Tuck and Gaztambide-Fernández’s (2013) theoretical concept of futurity. The language used by the participants when they were commenting on the use of AR and arts as a tool for classrooms signals a sense of hope for and curiosity about future teaching pedagogies. This also echoes back to Giroux’s (2003) words on the importance for schools to be a site of transformation, especially since national and global movements are forcing us (scholars, educators, artists, etc.) to reimagine classrooms.

This section explored the participants' final reflections as recorded in Survey 4, offering insight into how the project shaped their thinking around history, pedagogy, and the possibilities of creative technologies in education. Across all responses, a shared sense of curiosity and forward-thinking pedagogical intentions emerged. Participants expressed hope for more inclusive, multimodal approaches to teaching history that not only recover marginalized narratives but also engage students in critical, imaginative ways. Their reflections suggest that this project was not simply an academic exercise, but a catalyst for reimagining what history education can be. In the following chapter, I turn to the implications of these findings to propose how this study can inform the development of a teacher-focused toolkit grounded in inquiry, creativity, and critical engagement.

7.5 Concluding Thoughts

Two notes have emerged after the study concluded: 1) curiosities; and 2) futurities. Throughout the study (both the surveys and observations), each participant was curious about interacting with the objects and activating them through augmented reality. Through curiosity, the participants were able to engage with history through discussions and questions, which led them to connect to social issues surrounding race, gender, identity politics, immigration in 1914 in comparison to now, and much more. Through curiosity, the participants experimented with their historical inquiry works, taking risks on symbolism, content, or even choosing the historical event itself as a catalyst for imaginative exploration. In turn, the participants inquired about histories, historical narratives, and historical events that were either not typical in history textbooks, or missing from their previous experiences in history education (as seen with Student A who was never taught about the Holocaust or Residential School Systems). This element – embedded within curiosity – showcases their “learner” side; a side that allows for creative

experimentation to thrive as they work on a new skill (e.g., augmented reality, visual literacy, etc.).

On the flipside, as future teachers, their experience also revolved around and through their sense of futurities. Overall, these concluding notes echoes back to the a/r/tography method as outlined below:

- (a)rtmaking: **Students** can use artmaking (augmented reality) to engage their curiosity for a historical event. **Educators** can intertwine artmaking as an alternative form of assessment; an output into the other two forms in a/r/tography.
- (r)esearching: **Students** researching into the archive allows them to understand how archives can shape national narratives. **Educators** are then encouraged to teach students how the archive works in creating and establishing narratives. This would then satisfy the Historical Thinking policies outline by the OME.
- (t)eaching: Through a showcase/exhibition, **students** will informally teach their class on what they have learned. In the end, **educators** can use this method as an opportunity to teach transferrable skillsets to their students. Students will be taught how to do archival research, fact-checking, digital skills, and artmaking principles.

Each participant in this study mentioned how this may be useful in *a* history classroom or in *their* classroom (i.e., English and Math classrooms). This centres the possibilities of this research into the future, disrupting the mainstream narrative of traditional teaching and learning. For history education, utilizing a/r/tography methods can decentre the colonial-gazed curricula, moving learning into relation with a curriculum that centres historical inquiry, creative outputs, and multiple perspectives, and allows marginalized and silenced voices to thrive. In the last

chapter of the dissertation, I discuss and examine my response to the study, addressing barriers, and conclude with the future direction of the project and this work.

Chapter 8: Reimagining History Education using A/r/tography

After the study was completed, I was left alone with my thoughts to reflect on what is next for this project. This chapter: responds and reflects on the study; detailing the process of developing the a/r/tography model as a toolkit for educators interested in mobilizing open, student-directed historical inquiry in the archives; addressing barriers and limitations; and concluding with projections on the future direction of this research. Essentially, I will consider what the next steps for this research might be, and if there are any questions arising from this research project. By doing so, I create next steps in exploring how this project can be expanded into school boards and districts, and meet the needs of educators and students, particularly when history is fully de-streamed in the future.

8.1 Reimagining History Education—A Toolkit

After the completion of the study, I reflected on what reimagining history education would mean in both near and distant future contexts. My participants have expressed to me on multiple occasions that the project would be a great opportunity to engage students in classrooms. In thinking about mobilizing this project beyond just this dissertation, I created an online toolkit (Appendix O) to help educators navigate silenced histories and multiple perspectives through AR and archive-engaged work. The toolkit contains the following:

- A unit plan detailing how best to integrate the a/r/tography method (using this project as an example)
- Copies of the photographs used in the study with QR codes to the project
- Introduction to the Komagata Maru historical event (as an example)
- Assignment plan (could be an Independent Study Unit, or ISU assignment)

For now, this toolkit will live within this dissertation, but I aim to mobilize this project either through various organizations or through schoolboards—almost like a travelling archive.

Looking at similar possibilities, Stephanie Springgay’s *The Pedagogical Impulse* project invites artists in “residencies” to develop the intersections of pedagogy and artmaking in the form of pop-up exhibitions and kits. One of the projects, *The Instant Class Kit*, is a counter-archiving project that invited artists to radicalize the archive through artist multiples (zines, scores for a song of performance, board games, card decks, etc.) (Springgay et al., 2020, p. 898). Inspired by the Fluxus movement,²³ the *Instant Class Kit* is comprised of works by 14 artists who contributed to the “lessons, syllabi, and classroom activities...[to] address topics and methodologies including queer subjectivities and Indigenous epistemologies, social movements and collective protest, immigration, technology, and ecology” (p. 902). Three of the class kits were planned to be distributed to local schools via mail and the fourth kit became part of an archive repository.

While the toolkit I created as well as the exhibitions currently reside within this dissertation, the next steps for this project in terms of mobilization is to consider ways to distribute the toolkit (taking note from Springgay and the Fluxus movements’ methods), as well as to invite educators to see this toolkit in practice (perhaps through a travelling exhibition like Ackerman’s *Blue Dress Factory* trunk). In doing so, this project becomes more than just a doctoral project; rather, it activates its pedagogical potential for engaging with history through complex, creative, and anti-colonial/radical methods.

²³ The Fluxus movement, which started in the early 1960s, became an international movement of artists who were anti-establishment and worked to make the arts accessible to the everyday public (Higgins, 2002). The name Fluxus was coined by Lithuanian American artist George Maciunas to describe the importance of flow in the artistic process through performances, multiples, etc. (Higgins, 2002, p. 90).

8.2 Addressing Barriers

While this project provides an effective model to aide in discussing broader issues within and beyond history, I must also address an obvious barrier that may arise. While 95.4% of Ontarians have access to the internet, this leaves 4.6% without internet access (Statistics Canada, 2023). In addition, roughly 87% of Canadians between the ages of 12-17 own/use a smartphone (Ceci, 2022). This leaves 13% of youths without access to a smartphone. While this project has been mainly smartphone-based, the creation of digital works is done through a computer; thus, if a student does not have access to smartphone, the work can be created and tested through a computer and webcam setup. Since the start of the pandemic, school districts (e.g., Toronto District School Board) have expanded their laptop programming to ensure students are able to access education without barriers (Toronto District School Board, 2024). Regardless of technology access, this project is to serve as an example of how creativity (digital or otherwise) can be a form of knowledge/understanding (Greene, 2000).

8.3 Conclusion and Future Direction

Engaging with history via artefacts has allowed for open conversations, inquiries, and curiosities on social justice issues within a historical event. Through the multiphase study, my participants pinpointed linkages between historical events (i.e., Komagata Maru or their own historical inquiry project topics) to current events such as immigration, global conflicts, media representation, and more. The use of augmented reality combined with pedagogy can provide a transforming and reimagining of Canadian history learning in secondary schools by allowing creative outputs as inquiry-driven project work that may yield better and deeper engagements with history and archival research skills. Through the method of a/r/tography and other creative research methods, it has reoriented ways to support the Ontario Ministry of Education's learning

expectation and outcome while introducing difficult knowledge (Pitt & Britzman, 2003) through linking historical inquiry projects (archival research skills) with technology and other transferrable skills via augmented reality and visual and media literacy skills. In turn, future students can mobilize their knowledge and understanding on Canadian history in multimodal and creative ways. Overall, *Finding Voices* is an example of the pedagogical and creative approaches that teachers and curriculum developers can use to help students learn about, and learn from (Pitt & Britzman, 2003) silenced histories within the classroom. Through the potential toolkit, educators can reimagine ways to engage students with history in tangible and creative ways, especially since textbooks are constantly becoming outdated and often do not include multiple perspectives.

I imagine that in the distant future: 1) the curriculum guidelines will update to reflect not only the de-streaming of history courses in the secondary level, but also to reflect the supposed multicultural mosaic that Canada continuously claims as a reputation through multiple perspectives in Canadian history for all levels; and 2) history classrooms will become a site for inquiry instead of rote memorization of dates. I imagine students will learn through the archives and draw out narratives through tangible or digital objects. Educators will implement pedagogically digital-based learning either through AR or other forms (e.g., VR). Exploration of historical inquiries will be accepted as a form of knowledge and understanding. And difficult topics such as the Holocaust and the Komagata Maru will be thoughtfully taught, discussed, and navigated, in environments where students will not be afraid to ask questions. The null curriculum will then become part of the mainstream narrative.

As this chapter of my research journey is coming to an end, I am left with potential directions for the future of this research and ways the project can expand. One of those directions

is to propose the toolkit to school districts, educators, or organizations like the Ontario History and Social Science Teachers' Association education programming, which have a larger outreach program for projects and toolkits. My goal is to mobilize the toolkit through an open-source platform where educators can freely download the toolkit and customize it to fit their needs and lesson plans. Other goals for the next chapter in my research journey are to expand on the pedagogical potentials of implementing the toolkit into the classroom via a future study with secondary and/or elementary school students. By creating these opportunities for creative ways of engaging with history, students can enter discussions about broader social issues.

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Appendices

Appendix A: Consent Form



Office of Research Ethics
York University

Kaneff Tower, Fifth Floor -- 4700 Keele Street,
Toronto, Ontario, Canada, M3J 1P3

ore@yorku.ca
research.info.yorku.ca

Informed Consent Form for Students Over 16

Date: December 19, 2023

Study Name: Finding Voices: Bringing the Archive into History Classrooms

Researcher name: Sheetal Prasad, Education, PhD Candidate, York University (Principal Investigator), sp96@yorku.ca.

Supervisor: Gabrielle Moser, Assistant Professor, Faculty of Education, York University, gamoser@edu.yorku.ca

Purpose of the Research:

The purpose of this study is to better understand how students' engagement with tangible materials (three dimensional archival objects) may aid in their understanding of gender, race, and class relations within Canadian history. As an educational researcher and visual artist, I am interested in learning more about how students can more meaningfully engage with Canadian history in ways that feel culturally relevant to their family background and personal experiences. By presenting students with a prototype app and an archive box in the form of an exhibition, and undertaking observational research of their engagement with it, I hope to gain important insights into how archival material can augment and improve student engagement with secondary school history curriculum. Student surveys will ask students to reflect on their experience in history classroom, experiences with the app and their interactions with history. Students will be invited to contribute to the app's archival trunk by conducting their own archival research into the so-called SS Komagata Maru Incident, or any other historical event of their choice. Their contributions to the trunk will be showcased in an augmented reality catalogue (to be added to the exhibition) if they desire. Students are free to create written or creative works or learn how to create augmented reality works that showcases their historical inquiry skills. The final research will be presented in a dissertation.

What You Will Be Asked to Do in the Research:

The research project involves three stages of participation: completing short surveys; interacting with a prototype app in the exhibition space (location TBD); and a participatory archival research and art-making workshop, facilitated by the researcher.

In the first stage of the project, you will be asked to fill out a short survey about your comfortability with technology and your experience with Canadian history and classrooms. The survey will take approximately 10 minutes to complete.

In the second stage, you will be invited to engage with an archive trunk created by the researcher in the exhibition space. The trunk will have reproductions of archival objects that discuss the Komagata Maru Incident. The objects in the trunk can be used with the augmented reality app for further information about the object and its connection to the historical event. You will be asked a series of short questions to help you reflect on the experience of interacting with the trunk and augmented reality software and how it could be improved in the future (ex. Did you encounter difficulty navigating the app? Did your engagement with the trunk produce discussion with your peers?). The survey will take approximately 10 minutes each to complete, and the data collected will be anonymous. In total, this second stage of the project will take approximately 45 to 60 minutes.

In the third stage of the project, the researcher will conduct an introductory workshop on augmented reality and making digital art. Prior to the workshop you will be asked to conduct your own small historical inquiry. With the support of the researcher, you will be encouraged to undertake research, and to add to the art by making your own augmented reality works. The look and design of the digital piece is up to you. You will be given approximately 2 weeks to work on your projects (remotely). The researcher will be available to give advice on historical research skills and digital art making basics.

Students' digital works will then be featured in an art book (catalogue) for the public to see in the original exhibition space. Students' have the option of how they would like to be featured in the book (i.e., full name, initials, just their first name, or just their last name) or they have the decision to remain anonymous. It is important to not only give credit to the works that students have made, but to also represent the students in the ways they want to be presented. Students are not expected to be in the final catalogue if they do not wish to. The researcher's role in this stage will be facilitating the design, curation, printing, and launch of the book. The researcher will also be observing how visitors interact with the book.

The researcher's role in this study is to observe students' interaction with the archival trunk/exhibition, answer questions, provide mini workshops on basic artmaking skills, and printing the art books.

This research is not attached to any grade. This research is completely voluntary and regarded as extracurricular.

Risks and Discomforts:

We do not foresee any risks or discomfort from your participation in the research.

Benefits of the Research and Benefits to You:

You may not directly benefit from participating in this study, but the experience of engaging with the app, and reflecting on your experiences, may provide you with increased knowledge about your learning process, and may provide you with useful knowledge about the so-called SS Komagata Maru Incident and how it relates to present social justice issues. Participants will also gain an understanding of archival research methods, historical inquiry, creative skills (such as augmented reality), and curatorial work. In addition, it may help in creating future teaching and learning tools for their future classrooms.

This project will contribute to fields of history education and curriculum studies. With a rise in anti-racist mobilizing groups, such as Black Lives Matter, alongside reminders of the ongoing investigations into Missing and Murdered Indigenous Women and Indian Residential School graves, history education needs to reform and shift the paradigm to include recognition and representations of racialized and marginalized groups. By doing so, students can then critically analyze historical events and engage in a larger

discussion about important historical and contemporary issues such as immigration, race and gender, identity, and historical documentation. This project will be also relevant to the fields of technology through multimodal teaching.

Voluntary Participation and Withdrawal:

Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to refuse to answer questions will not influence your academic standing or the nature of your relationship with York University either now, or in the future. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality:

Data will be collected in the form of written field notes, hard copy surveys, and photographic documentation. Hard copies will be stored in a locked filing cabinet/box accessible only to the researcher. Electronic copies will be stored on a password-protected USB locked in the same filing cabinet/box. Data will be stored for 3 years (until December 31, 2027). After the storage date, hard copies will be blacked out with a marker and then shredded. Electronic copies will be deleted. All information you supply during the research will be anonymized and held in confidence.

Your name will not appear in any report or publication of the research. Confidentiality will be provided to the fullest extent possible by law.

Questions About the Research?

If you have questions about the research in general or about your role in the study, please feel free to contact me at sp96@yorku.ca or my supervisor, Dr. Gabrielle Moser at gamoser@edu.yorku.ca or/at 416-736-2100 ext. 22517. You may also contact the Graduate Program in Education at gradprogram@edu.yorku.ca and/or 416-736-5018.

This research has received ethics review and approval by the Delegated Ethics Review Committee, which is the delegated authority to review research ethics protocols by the Human Participants Review Sub-Committee, York University's Ethics Review Board, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Director, Research Ethics in the Office of Research Ethics, 5th Floor, Kaneff Tower, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

Legal Rights and Signatures:

I _____ (Student's Name) consent to participate in *Finding Voices: Bringing the Archive into History Classrooms* conducted by Sheetal Prasad. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature

Participant

Date

Email for Contact:

Signature _____
Principal Investigator

Date _____

Additional consent (where applicable)

1. Use of photographs

I _____ consent to the use of anonymized/non-identifiable images of me, my environment and property in the following ways (please check all that apply):

In the researcher's dissertation	<input type="checkbox"/> N	<input type="checkbox"/> Y
In academic articles	<input type="checkbox"/> N	<input type="checkbox"/> Y
In academic presentations	<input type="checkbox"/> N	<input type="checkbox"/> Y

Signature _____

Date _____

Participant Name:

Appendix B: Call for Participants! (Recruitment Package)

Poster for recruitment


JOIN OUR ARTS STUDY!


Finding Voices: Bringing the Archive into History Classrooms

This SSHRC funded project aims to better understand how students' engagement with tangible materials (three dimensional archival objects) may aid in their understanding of gender, race, and class relations within Canadian history.


LOOKING FOR:

ANY B.ED STUDENTS AT ANY STAGE OF THE PROGRAM

YORK 
UNIVERSITÉ
UNIVERSITY

SSHRC  **CRSH**
Social Sciences and Humanities Research Council
Conseil de recherches en sciences humaines

If interested, please contact Sheetal Prasad at sp96@yorku.ca or scan the QR code!



Email Template for Recruitment

Dear [Course Director/Professor/Admin],

My name is Sheetal Prasad, and I am a doctoral candidate in York University's Faculty of Education. I am currently in the process of recruiting students who may be interested in participating in my collaborative art research study. Specifically, I am interested in working with BEd students whose teachable is in history to engage their understanding about a specific historical event through analyzing archival objects; collaborate on a historical inquiry creative project; and fill out surveys about their engagement with the archive and conducting their own historical inquiry research.

My dissertation, titled "Finding Voices: Bringing the Archive into History Classrooms", explores the following questions: How might engaging with history through artefacts open conversations, inquiries, and curiosity on social justice issues? How might the use of augmented reality combined with pedagogy transform Canadian history learning in secondary schools? How can artistic methods support Ontario Ministry of Education learning outcomes while introducing difficult knowledge into the classroom? By including racialized and marginalized voices within history curricula and delivering it to students in engaging, multimodal and sensory ways, teachers and artists working in the classroom can inspire future students to become aware of, and civically active around, ongoing social justice issues in Canada. I believe that it is important to support future students and pre-service teachers in their understanding of history and how it cycles to our current social justice issues. In addition, it is important to have educational tools, like this project, accessible to teachers to help think about ways in which students can meaningfully engage with history and connect to broader social issues.

The research project is entirely voluntary, and the students have the right to withdraw from the research at any time without giving a reason and with no adverse consequences. All surveys and field notes will be anonymous. For photographic documentation, any student who does not consent to being photographed will either be blurred out or removed by Photoshop. All hard copies of data will be stored in a lock box or locked filing cabinet. Any digital data will be stored in a password-protected external hard drive/USB. The data will be stored until 2025 in which all

data will be destroyed and permanently deleted. Only the principal investigator (myself) will have access to the data. The data will be used towards the completion of my dissertation. To ensure knowledge mobilization for pre-service teachers, a summarizing report with documentation, as well as a lesson plan, will be made available online (Blogspot or Flickr website). **Participants will remain anonymous in any reports generated from the research.**

The research has been approved by York University's Research Ethics Board (Cert. # STU 2022-140). If you require more information about the research or the district and university's ethics, please see all contact information below. If you have any questions, please do not hesitate to contact me at sp96@yorku.ca.

Sincerely,
Sheetal Prasad

Sheetal Prasad | Principal Investigator | York University, Faculty of Education | sp96@yorku.ca

Dr. Gabrielle Moser | Thesis Supervisor & Graduate Program Director | York University, Faculty of Education | gamoser@edu.yorku.ca

Alison M. Collins-Mrakas | Director | York University Research Ethics Board
| acollins@yorku.ca also cc: ore@yorku.ca

Detailed Schedule

Session 1: Introduction to the research—up to an hour (hybrid)—Location TBD

- Introducing myself, the research, and going through the consent forms
- Hand out consent forms
- Answering questions

Session 2: Collect consent forms and start study—1 hour (in person)—Exhibition Location TBD

- Collecting and ensuring consent forms are filled out properly
- Explaining Phase 1 of the research

- Students fill out Part 1 of the survey that asks them about their experience with history and technology—10 minutes
- Students engage with the exhibition (archive trunk and app prototype) (Location TBD)—observational field notes and discussions/conversations with students
- Hand out Part 2 of the survey which asks students about their experience with the trunk and app, what they found interesting, etc.—10-15 minutes
- Explaining Phase 2 of the research
 - Inviting students to contribute an art book (catalogue) by conducting their own historical research and creation
 - Students are given two weeks to remotely work on their small project. They can work individually or in groups

Session 3: Workshop and check-in with students—up to an hour (in person)—Location TBD

- Workshop will be about how to create their own augmented reality works with a simple open-source software and how to create digital works using a free photoshop software, GIMP—15 minutes
- Check-in with students with their ideas, offer advice, and work through their ideas and plans—30 minutes
- Creating the book—this gives them autonomy in how they want their works to be presented—15 minutes

Session 4: Students remotely work on their projects. I will be made available via email, Zoom or in the exhibition space (Location TBD) if there are any questions (remote)

Session 5: Final design of the book is showcased to the students for approval (no session needed)—Email

Session 6: Opening Reception/Book Launch (optional and in-person)

- Students are invited to celebrate the launch of the book with friends and family
- Location is in the exhibition space (Location and Date/Time TBD)
- Survey Part 3 will be handed out to students to fill

Session 7: Debrief—less than an hour (hybrid)—Location TBD

- Collect Part 3 of surveys
- Thanking students for participating in the study
- Outlining next steps about the research
- Hand out debrief letter outlining the next steps of the research

Call for Participants! *Finding Voices* Collaborative Arts Research Study!

Who am I?

My name is Sheetal Prasad, and I am a doctoral candidate in York University's Faculty of Education. I am currently in the process of recruiting students who may be interested in participating in my collaborative art research study. Specifically, I am interested in working with BEd students to engage their understanding about a specific historical event through analyzing archival objects; collaborating on a historical inquiry creative project; and filling out surveys about their engagement with the archive and conducting their own historical inquiry research.

What is my dissertation about?

My dissertation, titled "Finding Voices: Bringing the Archive into History Classrooms", explores the following questions: How might engaging with history through artefacts open conversations, inquiries, and curiosity on social justice issues? How might the use of augmented reality combined with pedagogy transform Canadian history learning in secondary schools? How can artistic methods support the Ontario Ministry of Education learning outcomes while introducing difficult knowledge into the classroom? By including racialized and marginalized voices within history curricula and delivering it to students in engaging, multimodal and sensory ways, teachers and artists working in the classroom can inspire future students to become aware of, and civically active around, ongoing social justice issues in Canada. I believe that it is important to support future students and pre-service teachers in their understanding of history and how it cycles to our current social justice issues. In addition, it is important to have educational tools, like this project, accessible to teachers to help think about ways in which students can meaningfully engage with history and connect to broader social issues.

What will the participants do? (TLDR: 5 sessions; 4 surveys and a small collaborative art project; engagement with augmented reality app and archive box - The research will be conducted on campus and online)

The research expands on practical ways the ministry directives of implementing anti-racist programming through "learning in action." The research project utilizes tangible objects that students can engage with or activate through augmented reality (called the "archive trunk"). Through their engagements, students can critically analyze a specific historical event through archival objects. Participants will be invited to **fill out surveys and contribute to an art book (catalogue)** project through historical inquiry. The survey questions will ask participants about their experience engaging with the trunk and app, and their thoughts on using technology as an educational tool. I will help the participants begin to undertake archival research of their own, with the goal of contributing new objects, histories and voices to the trunk. The students' final digital artworks will be displayed in an augmented reality art book (catalogue) which can be used towards their teaching portfolios. After the exhibition, students will fill out a survey that will ask them about their learning experience in conducting their own historical inquiry. Participation will be in group formats, however, if students are contributing to the book, they will work on their

historical inquiries individually, in contact with the researcher, remotely. I will be observing students in how they engage with the archive trunk and exhibition. I will be conducting this research during campus hours. The project will take an hour or less each session in person (some sessions may be hybrid/flexible).

While this research is about history education, all BEd students are welcome to join this study! The research project is entirely voluntary, and the students have the right to withdraw from the research at any time without giving a reason and with no adverse consequences. All surveys and field notes will be anonymous. For photographic documentation, any student who does not consent to being photographed will either be blurred out or removed by Photoshop. All hard copies of data will be stored in a lock box or locked filing cabinet. Any digital data will be stored in a password-protected external hard drive/USB. The data will be stored until 2025 in which all data will be destroyed and permanently deleted. Only the principal investigator (myself) will have access to the data. The data will be used towards the completion of my dissertation. To ensure knowledge mobilization for pre-service teachers, a summarizing report with documentation, as well as a lesson plan, will be made available online (Blogspot or Flickr website). **Participants will remain anonymous in any reports generated from the research.**

Who approved this study? Who to contact for further info?

The research has been approved by York University's Research Ethics Board (Cert. # STU 2022-140). If you require more information about the research or the university's ethics, please see all contact information below. If you have any questions, please do not hesitate to contact me at sp96@yorku.ca.

Sheetal Prasad | Principal Investigator | York University, Faculty of Education | sp96@yorku.ca

Dr. Gabrielle Moser | Thesis Supervisor & Graduate Program Director | York University, Faculty of Education | gamoser@edu.yorku.ca

Alison M. Collins-Mrakas | Director | York University Research Ethics Board
| acollins@yorku.ca also cc: ore@yorku.ca

*** Indicates required question**

1. Name*
2. Email for Contact*
3. Program Stream, Teachables, Year of Study*
4. What piqued your interest in this study?*

Schedule

You will be contacted soon about the next steps for this project. Please see below the schedule (note: some components are flexible in terms of timing and may be subjected to change):

January 3: Introduction to the research—up to an hour (**ZOOM**)--a poll will be sent out to indicate best times to meet

- Introducing myself, the research, and going through the consent forms
- Hand out consent forms
- Answering questions

January 10: Collect consent forms and start study—1 hour (**in person**)—Sensorium Loft

- Collecting and ensuring consent forms are filled out properly
- Explaining Phase 1 of the research
- Students fill out Survey 1 which asks them about their experience with history and technology—10 minutes
- Students engage with the exhibition (archive trunk and app prototype) (Location TBD)—observational field notes and discussions/conversations with students
- Hand out Survey 2 which asks students about their experience with the trunk and app, what they found interesting, etc.—10-15 minutes
- Explaining Phase 2 of the research
- Inviting students to contribute an art book (catalogue) by conducting their own historical research and creation
- Students are given two weeks to remotely work on their small project. They can work individually or in groups

January 11: Workshop and check-in with students—up to an hour (**in person**)—Sensorium Loft

- Workshop will be about how to create their own augmented reality works with a simple open-source software and how to create digital works using a free photoshop software, GIMP—15 minutes
- Check-in with students with their ideas, offer advice, and work through their ideas and plans—25 minutes
- Creating the book—this gives them autonomy in how they want their works to be presented—10 minutes
- Hand out and collect Survey 3 --10 minutes

January 11-25: Students remotely work on their projects. I will be made available via email, Zoom, or in my Office (WC 113A) (**remote**)

January 24: Final design of the book is showcased to the students for approval (**no session needed**)—Email

January 25: Opening Reception/Book Launch (**optional and in-person**)--Eleanor Winters Gallery (WC 129)

- Students are invited to celebrate the launch of the book with friends and family
- Location is in the exhibition space (Eleanor Winters Gallery, WC 129, 4-6 pm)
- Survey 4 will be handed out to students to fill

February 1: Debrief—less than an hour (**hybrid**)—Location TBD--a poll will be sent out to determine best time to meet

- Collect Part 3 of surveys
- Thanking students for participating in the study
- Outlining next steps about the research
- Hand out debrief letters outlining the next steps of the research

Appendix C: Email Template for Galleries

Hello [Gallery Director's Name],

I hope all is well. I am writing to book a gallery space for my dissertation research and study for the Winter term. My dissertation, titled “Finding Voices: Bringing the Archive into History Classrooms”, explores the following questions: How might engaging with history through artefacts open conversations, inquiries, and curiosity on social justice issues? How might the use of augmented reality combined with pedagogy transform Canadian history learning in secondary school education? By framing a classroom (whether in traditional school settings or in site-specific spaces) as a site of critical public pedagogy, my project builds on Henry Giroux’s definition of public pedagogy as a form of resistance, where discussions of class, race, and gender come to the forefront in resisting the ideologies of the dominant settler-colonial narrative in education (Giroux, 2003, p. 10). By including racialized and marginalized voices within history curricula and delivering it to youths in engaging, multimodal and sensory ways, teachers and artists working in the classroom can inspire youths to become aware of, and civically active around, ongoing social justice issues in Canada.

I will be installing an archive box which features a series of archival reproductions on the Komagata Maru which can be activated through an augmented reality app prototype. In addition, I will be hosting workshops with my participants to create an augmented reality catalogue which will also be featured later in the exhibition. In total, I am hoping to book a room/space for roughly three weeks in the Winter term (flexible).

If you have any questions or concerns, please do not hesitate to reach out!

Kindly,
Sheetal Prasad

Appendix D: Info-Session PowerPoint Slides

Link: https://docs.google.com/presentation/d/1Vv3zkz0gZ4hC8IbtV17cBSuAcut5fLah-F17jSNyAEc/edit?usp=drive_web&ouid=115420210525259366619

**Finding Voices:
Bringing the Archives
into History Classrooms**

Research Study Info Session | Sheetal Prasad | sp96@yorku.ca | Feb 12, 2024

AGENDA

- 01 Introduction**
Who am I? Introducing Ourselves
- 02 Research Background**
What is this research about?
- 03 What will you do?**
A timeline with all the things you will do and what I will be doing
- 04 Form & Q&A**
Understanding the Consent Form. Questions?



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Who am I?

- ★ Ph.D. Candidate in the Faculty of Education
 - MFA in Interdisciplinary Art, Media & Design
 - BFA Studio Art with History Minor
- ★ Research Interests: augmented reality, history education, archives, a/r/tography (combined method of artmaking, researching, and teaching)
- ★ Artistic Practice: interactive installations, performance art, bookbinding, curation, interdisciplinary art

THIS IS OUR TEAM.



Sheetal Prasad (Principle Researcher)

I am conducting the research and the point of contact.

Methods: surveys, observational research, documentation, exhibition



Gabrielle "Gabby" Moser (Supervisor)

She guides me in my research study. She will not have access to any research data.

Committee Members:
Aparna Mishra Tarc & Kurt Thumlert



Office of Research Ethics

They gave me approval to conduct this study.

Answer any questions about my ethics approval.

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Background of the Research

- Explores the ways educators can engage students in history classrooms to discuss different topics (i.e., gender, race, immigration, women's rights, etc.) → focusing on racialized and marginalized Canadian history and archival and AR engagement/learning
- How might engaging with history through artefacts open conversations, inquiries, and curiosity on social justice issues? How might the use of augmented reality combined with pedagogy transform Canadian history learning in secondary schools? How can artistic methods support the Ontario Ministry of Education learning outcomes while introducing difficult knowledge into the classroom?
- By including racialized and marginalized voices within history curricula and delivering it to students in engaging, multimodal and sensory ways, teachers and artists working in the classroom can inspire future students to become aware of, and civically active around, ongoing social justice issues in Canada.

02

Finding Voices: Bringing the Archive into History Classrooms

This SSHRC funded project aims to better understand how students' engagement with tangible materials (three dimensional archival objects) may aid in their understanding of gender, race, and class relations within Canadian history.

LOOKING FOR:
ANY B.ED STUDENTS AT ANY STAGE OF THE PROGRAM

Presenter Notes:

Fun Fact: This research (as well as my BFA and MFA research works) was inspired by reading the Dear Canada book series in middle and high school. I was interested in how I was able to understand different historical events through the lens of fictional character who narrates her diary. At the end of the book were archival reproductions of photographs of that time period.

What is Augmented Reality?

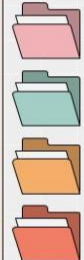
- Type of technology that allows physical environments to be altered by digital components (images, sounds, distortions, etc.) by a device.
- An example of augmented reality can be seen in things like the filters on Instagram in which some filters (like makeup ones, brightening ones, themed ones) augment our faces to a particular look.
- Augmented reality can also be seen in museums and art galleries where users hover their phone's device (via an app) on particular artworks to reveal interactive elements.



What will you be doing in the study?



- ★ February 12: Info Session (Zoom) → Intro to the study
 - What am I doing? **Handing out the consent forms for you to read**
 - What are you doing? **Reading the consent form, asking questions, etc.**
- ★ February 13 (flexible): Phase 1 (Sensorium Lab on campus) → engaging with the archival objects and augmented reality app
 - What am I doing? **Collecting consent forms, handing out Survey 1, taking notes and documentation, handing out Survey 2, explaining Phase 2**
 - What are you doing? **Signing the form, filling out Survey 1, engaging with the archive trunk + app, then filling out Survey 2**
- ★ TBD: Phase 2 → workshop and introducing Phase 3 (Sensorium Lab)
 - What am I doing? **Conducting the workshop, documenting, field notes**
 - What are you doing? **Following the workshop, filling out Survey 3* creating your own digital piece to put into the augmented reality book + exhibition**



Presenter Notes:

Phase 1:

Participants will sign the consent form that day.

Participants will fill out Survey 1 about their experience in history

Participants will engage with an archive box filled with archival reproductions of the Komagata Maru incidents.

Participants will fill out Survey 2 about their experience with the archive box and app

Phase 2:

Participants will follow along to a workshop on creating their own augmented reality works using a free third-party software

Participants are invited to create their own digital augmented reality works that will be made into a book which will be featured in the exhibition's Opening Reception (TBD).

Participants will fill out Survey 3 about their experience with the workshop

*Survey 3 + 4 were originally combined, but will be broken up to correspond to the different phases

What will you be doing in the study?

03

- ★ After the workshop: Remote work time
 - What will I do? **Help you with your project, create the book template**
 - What will you do? **Work on your digital piece(s)**
- ★ End of March: Opening Reception (Date and location TBD)
 - What will I do? **Field notes, documentation, hand out Survey 4**
 - What will you do? **Attend the opening reception (optional), fill out Survey 4**
- ★ March or April: Exhibition Closes → Debrief (Zoom)
 - What will I do? **Take down the exhibition, Debrief presentation, hand out debrief letter**
 - What will you do? **Receive debrief letter which can be used towards your job/teaching portfolios/resumes**

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Presenter Notes:

Survey 4 is the overall experience of creating the works and being a part of the exhibition

04

Consent Form Walk-Through

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THANK YOU!

Do you have any questions?

sp96@yorku.ca

Appendix E: Survey 1 Questions and Participants' Answers

Student A

Survey 1: Before students' engagement with the exhibition/prototype:

- How confident do you feel about your knowledge of Canadian history?

I am comfortable with discussing social, humanitarian issues in the context of education and decolonization, not so much when it comes to Canadian history and the actual dates/events that occurred (e.g., WWI, WWII, etc). I would consider myself a beginner when it comes to my knowledge of Canadian history.

- How confident do you feel about your knowledge in artmaking?

Not very confident but I am willing to learn!

- Which parts of history would you be interested to learn more about? Why?

Considering my knowledge is very limited, I would be open to learning more about racialized and marginalized communities that are underrepresented or were not represented in Canadian history.

- How would you describe your past experiences of using technology for learning?

The most experience I have using technology is for writing essays, doing research online, and browsing through readings for class, but that's about it.

- What was your history education experience like?

I think it was very rigid and disengaging. My history teacher in grade 10 focussed more on memorization of dates and timelines of when certain events began and ended. We never really focussed on the impact and significance of these historical events, and how the aftermath manifests into the social and political climate of present day.

- Why did you choose history as your teachable?

N/A

Student B

Survey 1: Before students' engagement with the exhibition/prototype:

- How confident do you feel about your knowledge of Canadian history?

I do not feel very confident in my knowledge of Canadian history despite what I have previously learned in my education. Throughout my Bachelor of Education, year 1, I did not have the opportunity to engage in learning more about Canadian History. I am hoping to participate in courses that will teach me more and gain further experience/confidence.

- How confident do you feel about your knowledge in artmaking?

I feel confident in my abilities in artmaking. I have had experience in artmaking throughout my undergrad, and 1st year of Bachelor of Education, as well as work experience. I have previously worked for the City of Toronto teaching arts and crafts programs to young children.

- Which parts of history would you be interested to learn more about? Why?

I would like to learn more about indigenous history in Canada. My current knowledge is based off what I have learned from school and educational experiences. I would like to dive deeper into context and real-world issues that have surfaced due to historical events.

- How would you describe your past experiences of using technology for learning?

While growing up I have been able to grow with technology. I feel confident in my usage of different technology devices, and I find it easy to navigate and learn new programming.

- What was your history education experience like?

In elementary and high-school, I had history classes which gave me a general overview of Canadian history. I have always found history to be intriguing and enjoyable to learn.

- Why did you choose your teachable/stream?

History itself is a major aspect of who we are as a society. I believe it is important for children to know and immerse themselves into programming that will inhibit their further knowledge and allow them to gain understanding of how, and who we are. By engaging children in history lessons that will enhance their learning, they will be motivated to learn and interested to learn particular topics.

Student C

Survey 1: Before students' engagement with the exhibition/prototype:

- How confident do you feel about your knowledge of Canadian history?

Of the subjects I've learned, I feel very confident. That is, I know I am limited to what the curriculum and various historical games have taught me, so I understand I hardly scratch the surface with my knowledge.

- How confident do you feel about your knowledge in artmaking?

In terms of the *knowledge* of artmaking, I am very limited, but I do enjoy writing essays, short stories, sometimes screenplays, and I have over the past couple years, began a journey with digital art.

- Which parts of history would you be interested to learn more about? Why?

I had a couple historical courses based on Mathematics and Astronomy, and those histories started way back in maybe 500 BC up until current day. So, I enjoy learning about how a particular subject or specific item evolves over time and Earth, and not just how it was useful in one era and in one time.

- How would you describe your past experiences of using technology for learning?

Technology has always added a little bit more difficulty. Only in terms of office tools (writing tools, spreadsheets, slideshows, etc) has it been useful, but most other tools just seem to make learning take longer.

- What was your history education experience like?

I have taken odd historical courses here and there, but in terms of how a history major may approach history or documentation or anything official, my experience has only been for the sake of curiosity.

Student D

Survey 1: Before students' engagement with the exhibition/prototype:

- How confident do you feel about your knowledge of Canadian history?

Above average understanding of Canadian history – took several courses centered around Canadian history in my undergrad at York, and wrote longer papers addressing various issues related to historical issues (e.g. The 1960s in Canada – wrote about the Mohawk Institute Residential School, Canadian History, Global Indigenous Histories)

Currently taking Foundations of Education and Theory course in teacher's collage – one module focused on historical schooling structures and policies (e.g. Early School Promoters, Residential Schools, Segregated Schools, Japanese Internment, etc.)

Feel that there's always more to learn about Canadian history and its lasting impacts today

- How confident do you feel about your knowledge in artmaking?

I feel slightly less confident (but excited) in my skills with artmaking – this will be first university experience conducting artwork, as my courses often concentrate on developing longer research papers and analyzing relevant information

- Which parts of history would you be interested to learn more about? Why?

I feel that I tend to lean more into social history – its fascinating to research and analyze historical social trends that continue to have an impact today, and this will be especially important in captivating student interest in the classrooms

- How would you describe your past experiences of using technology for learning?

Past experiences using technology over the pandemic and online schooling were less enjoyable – developed considerable anxiety over this time

However, I really enjoyed creating digital lessons/activities for primary students during this time (my mom was virtually teaching and grade ½ class)

My Foundations and Theory class asks us to create 3 culminating assignments that very open-ended and technology-centered – these opportunities have been fun and enjoyable

- What was your history education experience like?

In elementary school, my history education was very limited to the textbooks teachers chose to use – I often research outside topics I was interested in on my own time (I remember asking my parents to take me to AGO art exhibits).

My high school experience was much better and confirmed in my mind that history was what I wanted to study in university – I had an amazing grade 12 history teacher that really prepared us for how to write historical papers and evaluate information (some topics we discussed in class were in my lectures, and she would edit and make suggestions to my first-year university papers).

I had a really great experience in university! I was able to take much more varied history courses and get a much more fuller picture of what history is. I really enjoyed many of my courses and often refer to my notes/assignments to look over what we discussed.

- Why did you choose history as your teachable?

I've always really loved history – reading and writing historical papers, articles, books – and wanted to make a difference to primary history education (I've heard too many students say they hate history, it's their least favourite subject and it's all memorization of dates)

Student E

Survey 1: Before students' engagement with the exhibition/prototype:

- How confident do you feel about your knowledge of Canadian history?

I feel fairly confident in my knowledge of Canadian history. I am a history major, and I've taken Canadian/African-Canadian history At York in which I learned about both dominant and "hidden" histories of people in Canada.

- How confident do you feel about your knowledge in artmaking?

I enjoy looking at and experiencing art, but I am not very confident in artmaking. I am very open to learning though.

- Which parts of history would you be interested to learn more about? Why?

I am always interested in learning about the histories of those considered to be outside of the dominant narratives and stories told about Canadian history. I want to know more specifically about the lived experiences of immigrants in Canada such as Caribbean and African immigrants in the 20th and 21st centuries.

- How would you describe your past experiences of using technology for learning?

I use technology for learning in the context of education courses and teaching in my placement. We have used technology in increase student engagement and discussion in the classroom. It is also used as a tool for civic engagement and social justice. Ie, social media, podcasts, videos ect.

- What was your history education experience like?

My experience with history has been characterized by excitement and interest but also feelings of exclusion and unbelonging. I love learning about the lived experiences of people in the past and connecting these experiences to the present day. I also felt and still feel that the histories and

stories that are constantly valued and told exclude Black histories, Indigenous histories, histories of POC, LGBTQ histories, and the histories of disabled folks. I believe that centering these histories is an act of transgression and goes against the norms of what we view as holding historical significance.

- Why did you choose history as your teachable? (if applicable)

I chose history as my teachable because I felt disconnected to my histories in my youth as it was never centered or given space in the classroom. As a history major and future history teacher I hoped to alter students idea/perceptions of who's history is valued and integral in the Canadian landscape.

Appendix F: Survey 2 Questions and Participants' Answers

Student A

Survey 2: Reflection questions after students have engaged with the exhibition/prototype:

- What parts of the app did you find easy to navigate? What parts of the app were difficult to navigate and why?

The AR app was easy to navigate because I just had to scan the QR code through my camera and hover my camera over the pieces in the archive trunk.

- How did you feel overall about your experience with the archive trunk?

I found it engaging and I learned a lot from Sheetal.

- What is one new thing you learned from your engagement with the app?

I learned that history is more engaging when it is taught through technology.

- If you did not like the app, why?

N/A

- If you liked the app, why?

I liked the app because it doesn't require me to download an app. It is accessible and I can easily browse and engage through the web.

- How did you feel about engaging history through a creative exhibition?

I think this would have benefited me more in high school when history was taught. I think lots of future history teachers should consider implementing augmented reality into their lessons

especially with the current generation should technology as their main source of education and learning.

Student B

Survey 2: Reflection questions after students have engaged with the exhibition/prototype:

- What parts of the app did you find easy to navigate? What parts of the app were difficult to navigate and why?

I found the app easy to navigate and straight forward. The only aspect I found a little tricky was the “point and shoot” aspect where you need proper lighting in order for the photograph to be prompted.

- How did you feel overall about your experience with the archive trunk?

The archive trunk was very well put together. I found the photos and artifact interactive as they were large and touchable. The app itself was interesting and something I have never used before. Overall, the experience was immersive, and I learned a lot.

- What is one new thing you learned from your engagement with the app?

I learned how to navigate the app through physically engaging with my iPhone. Through the experience I was able to learn about the Komagata Maru, which I have had no prior knowledge of. With pop ups on the screen and photographs, I was able to gain a further understanding of the event and its outcome/effects on society.

- If you did not like the app, why?

N/A

- If you liked the app, why?

I thought the app was a great tool to use to engage in learning about historical events. With its easy to navigate and simple instructions, you don't need to have a lot of technology experience to figure out how to use it.

- How did you feel about engaging history through a creative way?

I now feel more confident in engaging in history through creative outputs and interactive AR tools. I can now imagine teaching history using a different outlook and technology tools that will engage students in lessons beyond just using a text book.

Student C

Survey 2: Reflection questions after students have engaged with the exhibition/prototype:

- What parts of the app did you find easy to navigate? What parts of the app were difficult to navigate and why?

The app wasn't working at first, but as soon as it had a moment to think, it worked fine. It was somewhat difficult to see the words at an angle, but then if I just readjust the trigger, it was once again fine.

- How did you feel overall about your experience with the archive trunk?

This is exactly how I like learning about history. The events of the Komagata Maru began in 1914, and then continued for a hundred years after over various locations, and I'm glad I

followed along on that journey instead of reading about the Komagata Maru in 1914, and then hearing about something else that happened in 1914 that doesn't have to do with it.

- What is one new thing you learned from your engagement with the app?

I learned a lot about the Komagata Maru, Gurdit Singh, and this entire history that I wasn't aware of at all.

- If you did not like the app, why?

I liked the app, but maybe just because I'm a slower reader, it was little hard to keep up.

- If you liked the app, why?

I like that it was very clear which information went with what. That is, it was very helpful to know that the information I was reading actually had to do with the image I was looking at.

- How did you feel about engaging history through a creative way?

It seems as though creativity should always have a role in history because history in general is an art, it's a story. I feel as though using some sort of creativity is necessary to convey a story, and specifically to convey history.

Student D

Survey 2: Reflection questions after students have engaged with the exhibition/prototype:

- What parts of the app did you find easy to navigate? What parts of the app were difficult to navigate and why?

Overall, I found the app easy to navigate and would be very accessible to different audiences (enjoyed the multimodal experience) – the only critique I would mention is that it can be slightly difficult to read the text through the app at times

- How did you feel overall about your experience with the archive trunk/box?

Overall, I really enjoyed it! I learned quite a lot about the history of the ship, important players and its aftermath in the years following

I think primary/junior students would enjoy a hands-on experimental approach to history learning – having them write down their noticings/wonderings or initiating important discussions about Canadian history

- What is one new thing you learned from your engagement with the app?

I learned that you can overlay images with text (e.g. quotes) with sound – provided a sensory experience while interacting with historical content

- If you did not like the app, why?

N/A

- If you liked the app, why?

I liked the app! I think it can be a powerful tool in primary/junior classrooms to foster student creativity with technology, as they develop analytical historical skills – could be a more engaging method for students to present/share their work than simply creating a PowerPoint or a poster

- How did you feel about engaging history through a creative way?

I think using creativity is one of the best ways to learn and teach history. I find that this approach is much less daunting for students and provides multiple entry points for students to begin engaging with historical thought/materials

Student E

Survey 2: Reflection questions after students have engaged with the exhibition/prototype:

- What parts of the app did you find easy to navigate? What parts of the app were difficult to navigate and why?

The app was over easy to navigate, scanning the QR code and then the picture made the AR easily accessible. No parts were difficult except it did take a while to load the app at first.

- How did you feel overall about your experience with the archive trunk?

I felt very immersed in the historical experiences I found in the trunk, and this was done with the help of the application. The prompts and artifacts that came up when I scanned the picture were engaging and thought provoking.

- What is one new thing you learned from your engagement with the app?

I learned about historical experiences and perspectives that I was unfamiliar with. Through the app I was able to see historical events through the eyes and experiences of those who experienced them.

- If you did not like the app, why?

N/A

- If you liked the app, why?

I did like the app because I found that as someone who enjoys history it was interesting to see historical artifacts on my phone screen that connected me to the time and context of a photo that I knew little about. I felt very immersed in the histories presented with the app.

- How did you feel about engaging history through a creative way?

I enjoyed the creative engagement and I believe that it sparked more thoughts, curiosity, and critical thinking for me as opposed to simply reading historical narratives in a textbook.

Appendix G: Phase 2 Workshop PowerPoint Slides

Link: https://docs.google.com/presentation/d/1BEGU_F-lb7zbc07Dy8_xDfeuGb4BCJyaK2TVHzKvE1g/edit#slide=id.p

How to use Pictarize Studio

Here's also their guide:

<https://pictarize.com/guide/editor/>

Create an Account: <https://studio.pictarize.com/login>

Click on
"Register" to
make an account

Pictarize Studio

SIGN IN

Email

Password

Login

Register

Forgot password?

Don't want to register?

Try out first

Tryout project will vanish in 24 hours.

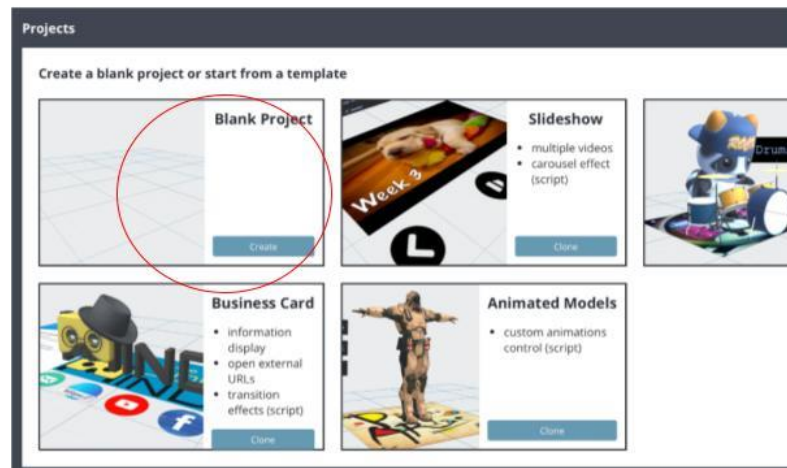
[Terms of Use](#) [Privacy Policy](#)

After logging in: <https://studio.pictarize.com/>

Click on Create Project

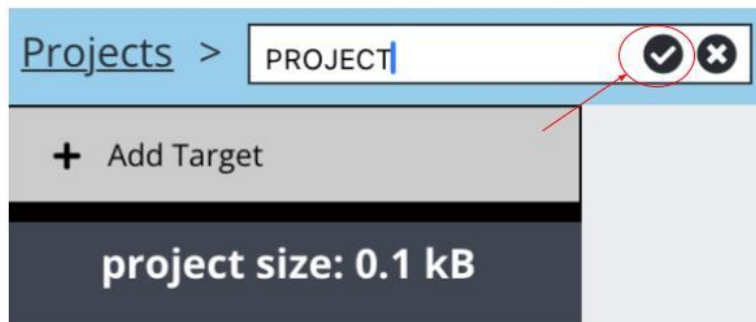


Then click on “Blank Project”



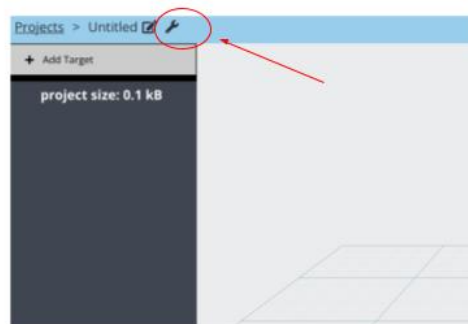
Renaming your Project

To rename your project, click on the square with pencil icon to rename. Click on the checkmark to confirm your renamed project.



Change your settings

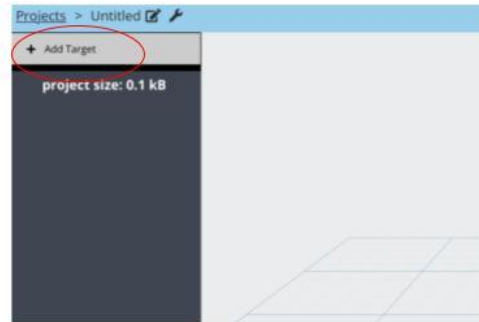
To ensure a smooth user experience, click on the wrench icon and then click the Multiple setting. This ensures that viewers can switch from one trigger to another without any additional steps. Click "Save".



Adding your image triggers

Click “Add Target” on the left panel.

Click “Upload” and then add your image triggers.



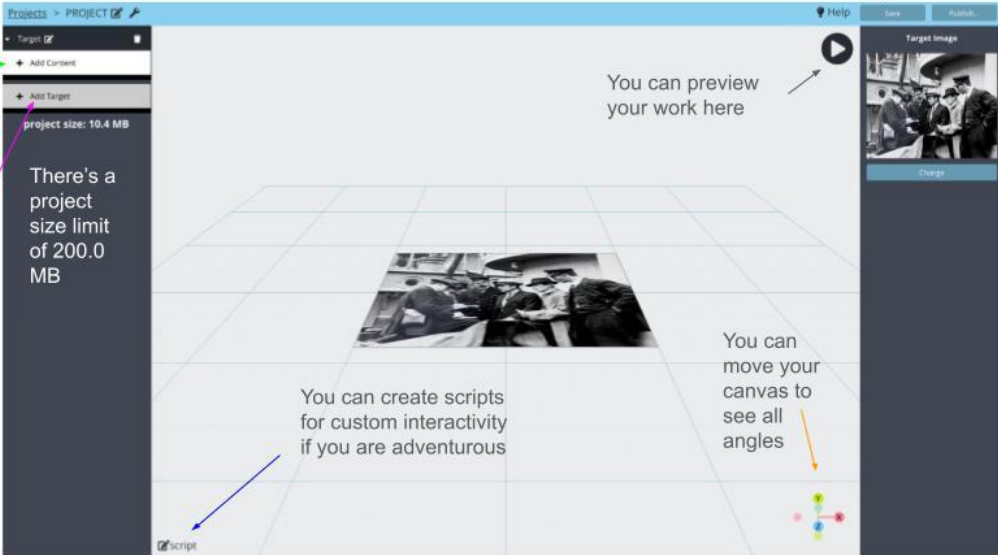
Adding your image triggers

Click on the image you want triggered.

It will add it to your digital canvas



Understanding the features



The screenshot shows the AR application interface. On the left, a sidebar contains an "Add Content" button and a "project size: 10.4 MB" indicator. The main area is a 3D grid with a central image of a group of people. A "script" icon is at the bottom left. On the right, a "Target Image" preview is shown. A "Save" button is at the top right. Annotations include: a green arrow pointing to "Add Content"; a purple arrow pointing to the project size; a blue arrow pointing to the "script" icon; an orange arrow pointing to a camera rotation icon; and a play button icon with the text "You can preview your work here".

Add Content allows you to add digital components. There are three (Assets, Video, Text)

You can add multiple image triggers

There's a project size limit of 200.0 MB

You can create scripts for custom interactivity if you are adventurous

You can move your canvas to see all angles

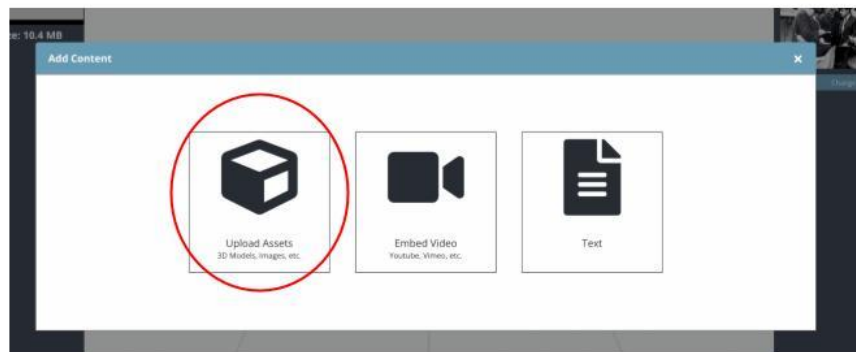
You can preview your work here

Save

Adding Content: Image

Click "Add component" and then click "Upload Assets".

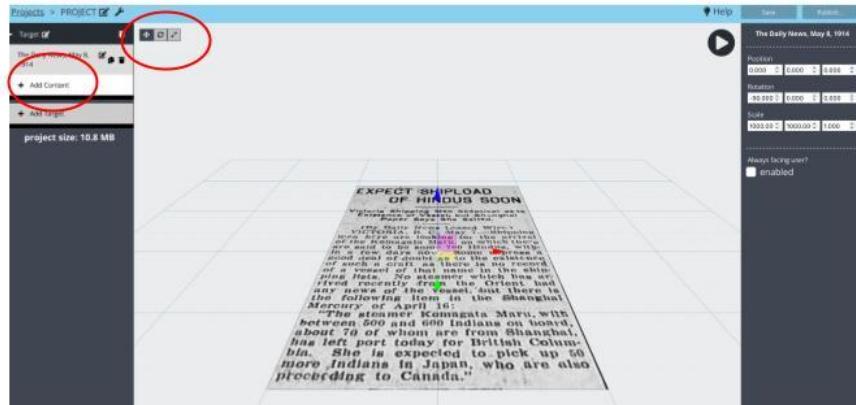
You can then upload images that you want as digital components for the AR.



Adding Content: Image

You can move, rotate, and scale the image to your desire

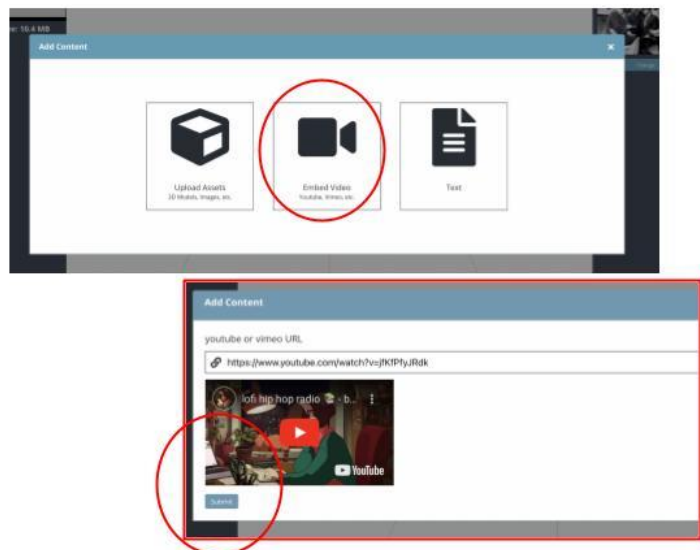
You can add more components to the target by clicking Add Content.



Adding Components: Video

Click "Add component" and then click "Embed Video".

Then add a link to a YouTube or Vimeo video. Click submit.

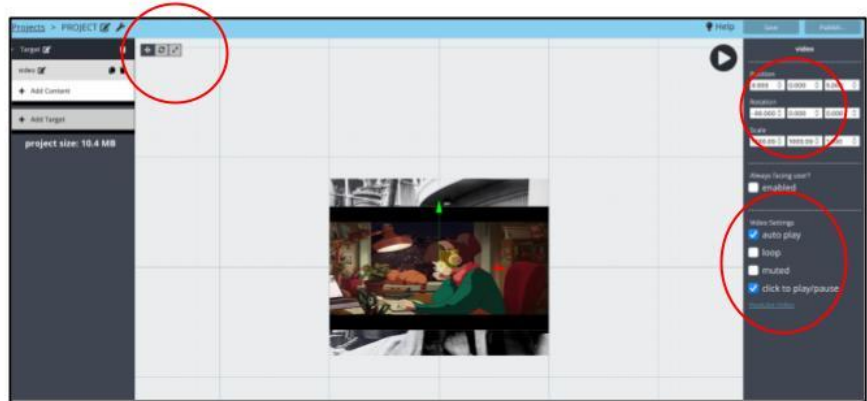


Adding Components: Video

You can move, rotate, and scale the video.

You can also be precise through the Position panel on the right.

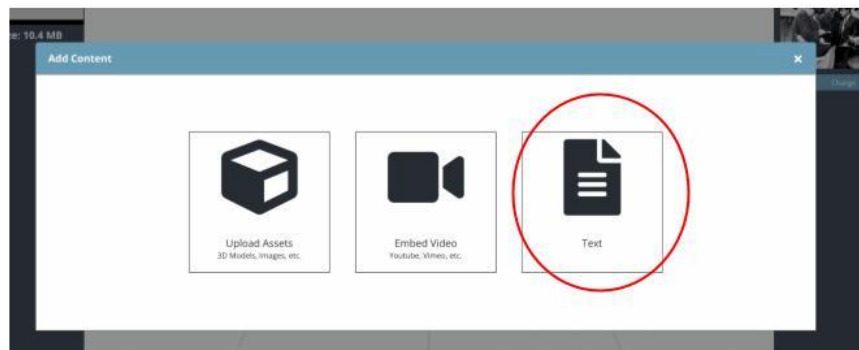
You can also play around with the video settings.



Note: if you want a link to go to a webpage, you may need to do some scripting. If you are scripting, you need to rename your Target and component so the script understands what is being tapped

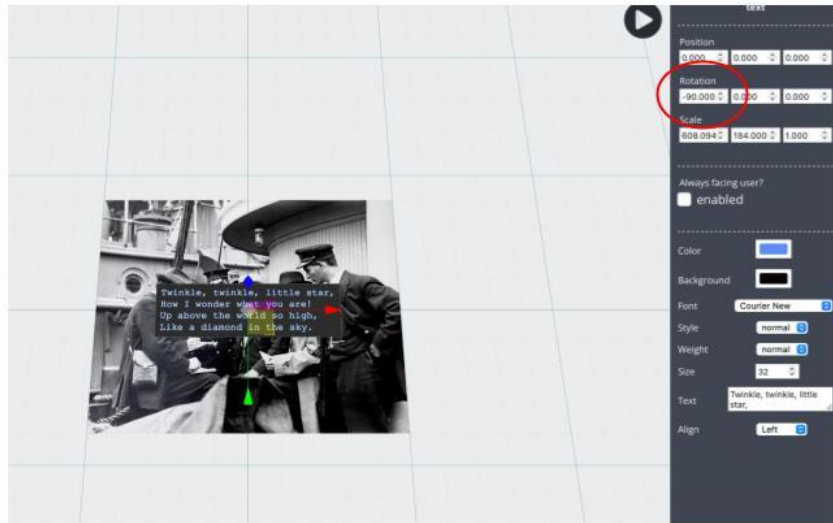
Adding Components: Text

Click "Add component" and then click "Text"



Adding Components: Text

Very weirdly, you will need to reposition the text box to -90.00 in the positions section on the right. This makes the text appear flat on your image. You can use the move tool to adjust the depth of the textbox to make it seem like it is “jumping off” the image

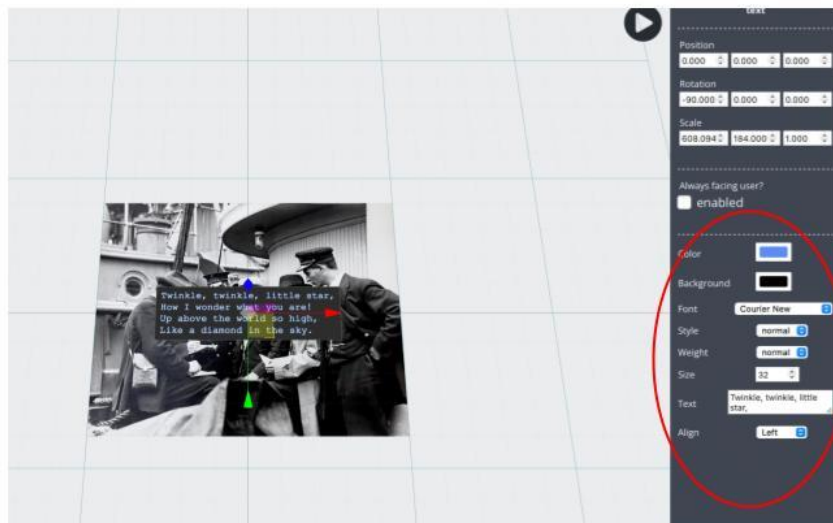


Adding Components: Text

You can change the text colour, text box colour, font, size.

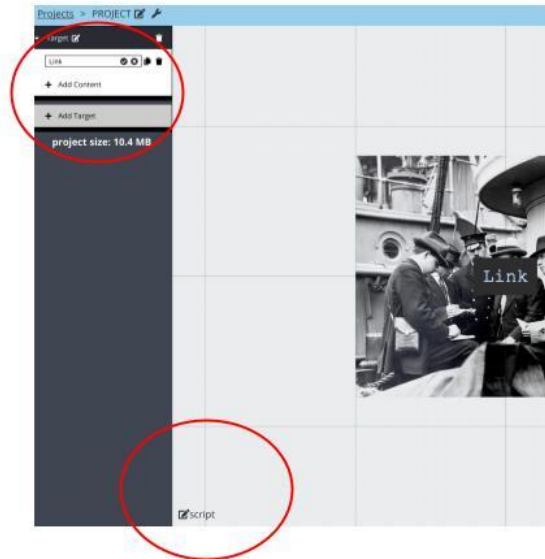
You can also make the text italicized, bold and align left, right, or centre.

You can also move, rotate, and scale the text box like in the video and image component slides



Scripting (optional)

First, re-label your component that you want linked to a webpage. In this case, I want this text box that says link to take me to a webpage, thus I relabelled it to Link. I relabeled the component to keep track of it.



Click "script" on the bottom to open up the scripting page

Scripting (optional)

Under the onClick section, add the code depicted.

Replace the NAME OF YOUR COMPONENT with the name of the component listed in the left panel. In my case, it is Link.

Replace the PAGE URL with the link to the webpage. In this case, I'm using Google.

Then click Update. You can test it out using the Play button and clicking with your cursor



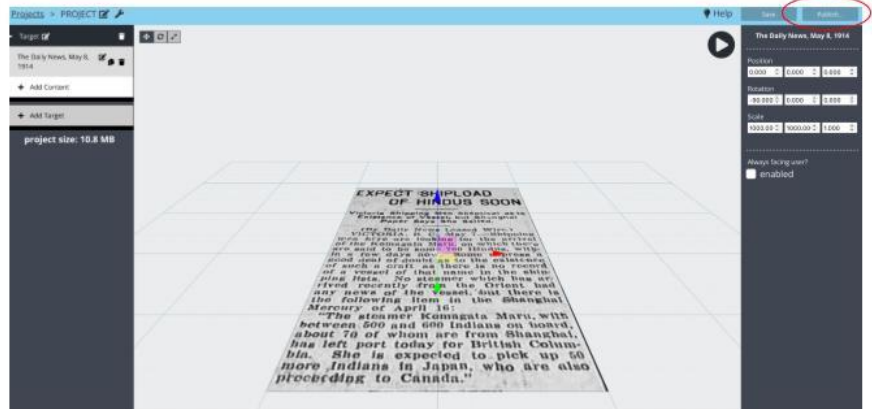
```

18 }
19
20 function onClick( {target, data, object, time} ) {
21 // this event is called when any object from the scene is being clicked (i.e. tapped)
22 if (object.name === 'Link') {
23     window.open('https://www.google.ca', '_blank');
24 }
25 }

```

Publishing the work

To Publish the work, click "Publish".



How to access the finished work

After the build is complete, click Preview to access the QR code.

Export the QR code and add it to our AR catalogue so others can enjoy the work.

Voila! You made a QR code Augmented Reality work!



How to use Library and Archives Canada

<https://library-archives.canada.ca/eng>

Searching the collections

Use the collections search bar to find images or other artifacts in the archive.

Use keywords to help narrow your search. Keywords can be anything. It can be looking up specific people, places, things, events, etc.

Library and Archives Canada

Library and Archives Canada (LAC) helps Canadians gain a better understanding of the continuing memory of the federal government and its institutions and as the guardian of our recent history. Discover [who we are and what we do](#).

Collection Search

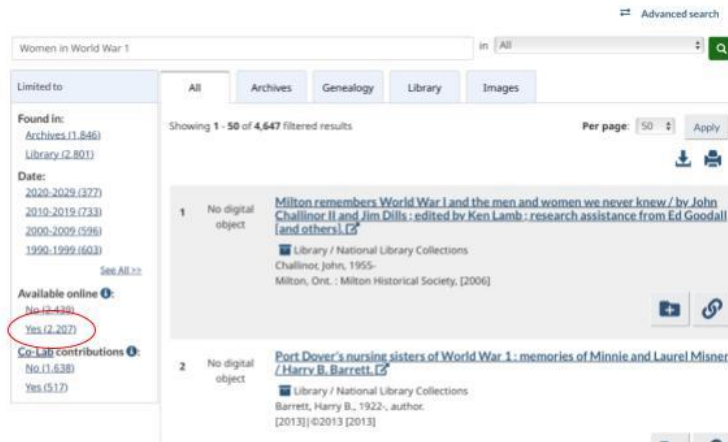
Search government records, books, newspapers, images and more

[Learn more about Collections](#)

Narrowing your search

You can narrow your search by date.

Filter your result by click “Yes” under Available online. This is where you can access all the digitized ephemeras.



The different tabs on top

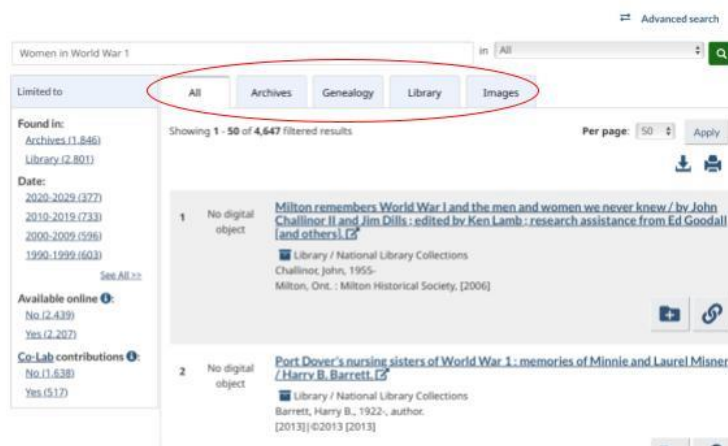
The different tabs can help narrow down what you want to see specifically.

Archives is everything object-based

Genealogy is family ancestry-based

Library is everything book-related

Images are anything photographic-based



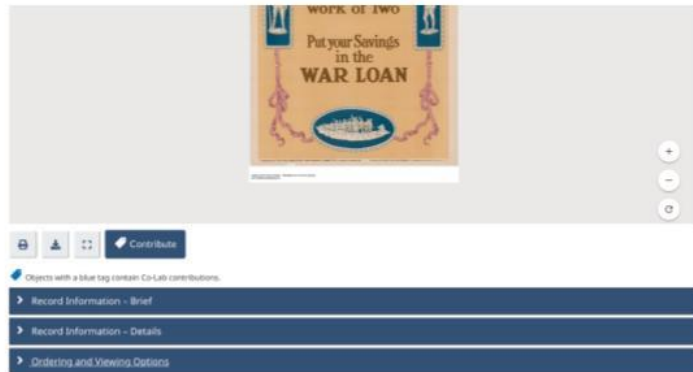
When you find something of interest...

If you find something of interest, click on it and more information will appear.

Record Information includes where to find this item, the origins of the object, and sometimes additional info about the object.

In the "Ordering and Viewing Options" tab, that is where you can request to see it in person. It also include the Terms of Use and how to credit the object.

It is important for this project that you include the credit so people know where to find the object if interested. Please make sure to add your image triggers and the links of your archival images in to the AR catalogue



AR Catalogue: [Link](#)

Please add the links to the images you are using for the AR catalogue (in your section). Also add the QR code and a blurb to your section.

The blurb can include context to the historical event, your reflections, etc. You can write as much as you want!

I will format your sections and citations.

Other Digital Archives (small sample - there are tons of them!)

<https://archivescanada.ca>

<https://www.warmuseum.ca/learn/research-collections/>

<https://www.archives.gov.on.ca/en/index.aspx>

<https://digitalarchive.tpl.ca>

<http://www.communitydigitalarchives.com>

<https://collections.archives.ca>

<https://www.toronto.ca/city-government/accountability-operations-customer-service/access-city-information-or-records/city-of-toronto-archives/>

Appendix H: Survey 3 Questions and Participants' Answers

Student A

- How did you feel about the workshop?

I feel like the workshop was very helpful. We learned how to create augmented realities for cultural artifacts. I think this will be a very useful tool that can be implemented into my teachables of Social Sciences & Humanities and English. This is an innovative way to get students to engage with history, social and political issues, and facilitate meaningful discussion within the classroom.

Student B

- How did you feel about the workshop?

This workshop was a great way to learn how to engage in AR tools and navigate how to use them within a classroom. I think that the AR tool is great for teaching children history, as well as all other subjects. The workshop was thought out well, and was displayed thoroughly with information to ensure that we had what we needed to use it on our own time. Thanks!

Student C

- How did you feel about the workshop?

It felt beneficial to learn about this program that I can use for this thesis as well as for my future teaching career.

Student D

- How did you feel about the workshop?

I feel very excited to begin workshopping a historical topic and create a digital AR artwork! I feel that this is a really creative hands-on project that allows us to delve deeper into less known

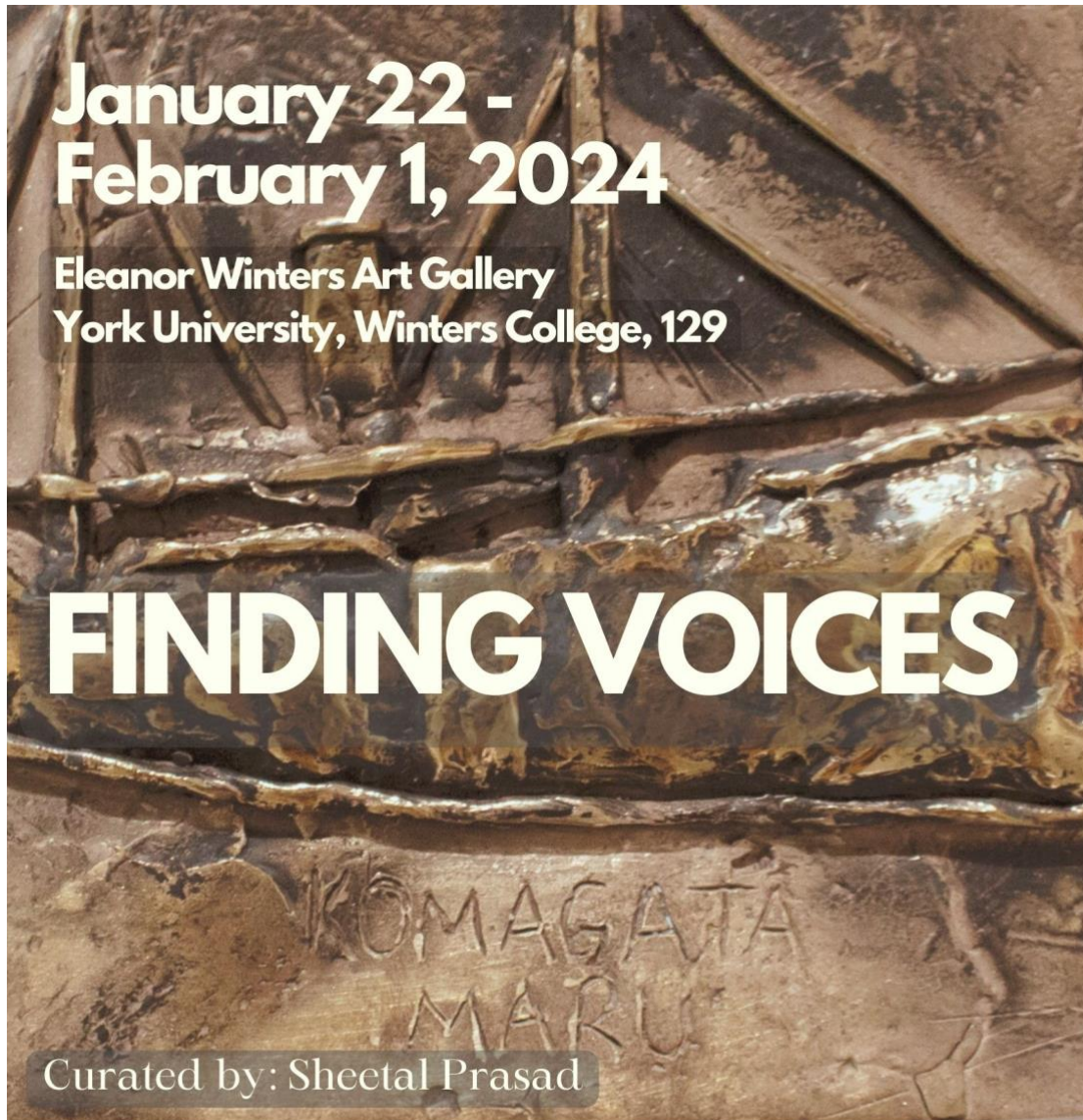
chapters of Canadian history - I'm hoping to share this app with other teachers I know as an interesting addition to their lessons/activities

Student E

- How did you feel about the workshop?

I felt good about doing the workshop because I was able to see new ways of learning and experiencing history as a history major and future history teacher. I am excited to engage in historical perspectives in this new way and to engage my future students in historical archives through AR as well. It was an eye opening and meaningful experience for me and I hope to make history meaningful for my students through the use of archival documents and AR.

Appendix I: Approved Posters



**A research exhibition
featuring augmented
reality works from B.Ed
students and the curator.**

**Opening Reception:
January 25, 4-6 pm**

More information:

✉ sp96@yorku.ca

Sheetal Prasad

🕒 M - F: 12 pm - 6 pm

APPROVED FOR POSTING
ON 2023-11-29 BY
YORK UNIVERSITY
TEMPORARY USE OF
UNIVERSITY SPACE

YORK
UNIVERSITÉ
UNIVERSITY

SSHRC
Social Sciences and Humanities Research Council
Conseil de recherches en sciences humaines

April 2-5, 2024

**Eleanor Winters Art Gallery
York University, Winters College, 129**

FINDING VOICES

PART 2

Curated by: Sheetal Prasad

**A research exhibition
featuring augmented
reality works from B.Ed
students and the curator.**

**Closing Reception:
Date April 5, 4-6 pm**

More information:

 sp96@yorku.ca

Sheetal Prasad

 **M - F: 12 pm - 6 pm**

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APPROVED FOR POSTING
ON 2024-02-29 BY
YORK UNIVERSITY  TEMPORARY USE OF
UNIVERSITY SPACE

SSHRC  **CRSH**
Social Sciences and Humanities Research Council
Conseil de recherches en sciences humaines

Appendix J: Augmented Reality Catalogue

Link: https://docs.google.com/document/d/1bjzsMIT6Mv9wXCfXscrak7Qpxn_3xFbuc3NG_-1Dyys/edit

Appendix K: Survey 4 Questions and Participants' Answers

Student A

Survey 4: Post-Exhibition and Post-Study

- How did you feel overall about contributing to an art book (catalogue)?

I feel accomplished and that I gained a lot of valuable skills that I can apply to my future practices in the classroom. It is especially useful because I strengthened my digital literacy skills and learned what augmented realities are, and how I can incorporate it into my social science and humanities teachable. I would strongly recommend this experience to any educators or anyone who is passionate about history and humanitarian issues.

- How has the overall experience shaped your understanding on social justice issues/Canadian history?

I learned so much more about Canadian history, specifically the SS Komagata Maru Incident and other events that Canadian history suppresses.

- What questions do you still have about history?

My questions are moreso a critique of our Canadian history curriculum and what events are taught versus what events are not taught. The one question I have is: How can we broaden our knowledge about Canadian history and connect it to global politics? (e.g., Middle Eastern politics)

- How do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?

Yes, I already have friends who are also teacher candidates that I have shared my knowledge with because I think this is a valuable tool that many teachers can use for history classes. This is especially useful considering the digital age of technology that dominates the learning space.

Student B

Survey 4: Post-Exhibition and Post-Study

- How did you feel overall about contributing to an art book (catalogue)?

I am very happy and pleased with the turnout of the art book. I felt confident contributing with the clear direction of support from Sheetal. Contributing to the artbook was fun and easy to navigate once I got the hang of it. This experience was informational and I can't wait to use it in the future!

- How has the overall experience shaped your understanding on social justice issues/Canadian history?

The overall experience shaped my understanding on social justice by learning about historical events that I had limited knowledge on. These events were influential to Canadian history and have helped/are shaping society as we know it.

- What questions do you still have about history?

I would like to further my knowledge in historical events that hold influence on how we run as a society today. I would ask, how can we become further aware of these events and how do we find out about them?

- How do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?

I am excited to engage students in digital learning and using this new knowledge of AR within my classrooms. Using digital components in the classroom, throughout history lesson, makes me feel confident that students will be interested and motivated to learn using technology and new ideas. I do think I will use an arts-based method for my own future classroom as I personally found it engaging and intriguing to participate; thus I feel students will feel the same.

Student C

Survey 4: Post-Exhibition and Post-Study

- How did you feel overall about contributing to an art book (catalogue)?

As an aspiring math teacher, it was good to split from that area of knowledge for a while. I now have access to tools I can use for my own classes in the future, as well as for my own interest and curiosity.

- How has the overall experience shaped your understanding on social justice issues/Canadian history?

I've always known Canadian history to be rather rigid. But even in a project such as this where the point is to break through the barriers, it still felt stifled considering we were using Canadian archives, which have already been screened. I look forward to what projects like these will break through in the future.

- What questions do you still have about history?

I feel as though if someone does not have questions about history, then they are the pinnacle of ignorance and arrogance. Delving further and further into history should always incite more questions, as this project has incited for me.

- How do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?

I definitely will be using art-based tools and digital tools in my future classrooms, especially with the reputation that math already has. It would be a better way to engage a wider range of students for sure. I think with the progression of AR and AI tools, it is very necessary to use such tools in the classroom so they don't fall behind and become relics themselves.

Student D

Survey 4: Post-Exhibition and Post-Study

- How did you feel overall about contributing to an art book (catalogue)?

I felt really great and successful in researching and contributing to a history archival project! I felt like I found a significant and fascinating aspect of Canadian history that I hope to continue to do further research into.

- How has the overall experience shaped your understanding on social justice issues/Canadian history?

The overall experience has definitely shaped my understanding of how social justice issues/Canadian history can be researched/displayed/engaged with beyond traditional means (academic scholarship). The digital component of this project (VR technology) has been a very interesting experience for me and one I plan to use in my future classrooms for students to engage more closely with Canadian history.

- What questions do you still have about history?

After completing my research, I have more questions on what engaging with history can look like, and who can be a historian, especially when using digital technology. Using a similar project in primary-junior classrooms can help make younger students into historians engaging with history with unique mediums.

- How do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?

I feel that utilizing creative/digital components as learning tools is really a fantastic way to reach younger students with historical research and transform traditional history lessons into a creative

process. I definitely plan on using arts-based methods in my future classrooms to engage students with history and make it a more enjoyable subject students will want to study.

Student E

Survey 4: Post-Exhibition and Post-Study

- How did you feel overall about contributing to an art book (catalogue)?

I felt extremely proud of the AR pieces I created. I'm glad I was able to share photos and stories about the Caribbean diaspora in Canada with people who are unfamiliar with these histories.

- How has the overall experience shaped your understanding on social justice issues/Canadian history?

This experience has emphasised to me the importance of centering stories and histories that are often overlooked and erased in the Canadian nation. This project has allowed me to share the experiences, struggles, and accomplishments of Caribbean communities in the nation. I see how this experience allows people to challenge social justice issues and amplify the voices of marginalized peoples.

- What questions do you still have about history?

I am wondering where do we go from here? I am wondering if invaluable histories we have shared today and continue to learn about will influence us to make changes and not repeat history.

- How do you feel about having creative/digital components as teaching and learning tools for history classrooms? Do you feel that you may use arts-based methods for your own future classrooms?

I am so grateful to have participated in this project because I see how valuable the implementation of this project would be in classrooms. As a history major, I would love to allow students to create their own AR pieces to bring forth their own histories or histories they find of interest to them. This project is a tool to make history meaningful and responsive for all of our students

Appendix L: Debrief Letter

[DATE]

Dear [STUDENT'S NAME],

Thank you so much for participating in the research project, “Finding Voices: Bringing the Archive into History Classrooms.” Your time, knowledge and contributions are greatly appreciated and will help inform future artists, teachers and students who work with Canadian histories and archives.

You will remain anonymous in any reports generated from the research. This includes not utilizing student names in any written or photographic works resulting from the research project. All participants will be labelled as either “Students” or “Student A, B, C, etc.”. If you did not consent to being photographed, you will either be blurred or removed from the documentation using Photoshop. All photographs will need to be approved by all participants before being used in written reports, the doctoral dissertation, or conference proceedings.

In addition, your participation has no impact on your school results. All data collected are anonymous. All data will be either locked in a box or in a password-protected external hard drive/USB until December 31, 2027, at which time all data will be destroyed as outlined in the consent form.

To receive updates about the future of the research, please email me (sp96@yorku.ca) with your preferred contact information. The next step for the research is organizing all the data chronologically, anonymizing it, and inputting the data into my dissertation, which will be completed in 2024. The final dissertation will be submitted to York University's Theses

Repository after defending: <https://yorkspace.library.yorku.ca/xmlui/handle/10315/26544>. At this time, I will also send a final copy of the dissertation to you all via email.

If you wish to know more about the research and the final stages of sharing it publicly, please do not hesitate to contact me at sp96@yorku.ca. I am more than happy to answer questions, concerns, or curiosities that may arise.

Thank you for all your help in making this research project possible!

Sincerely,

[SIGNATURE]

Sheetal Prasad, MFA, BFA
Doctoral Candidate and SSHRC Doctoral Fellowship Holder
York University, Faculty of Education
sp96@yorku.ca

Appendix M: Comments from the Exhibitions

Comments from First Exhibition

- Very cool AR exhibit! It intrigued to learn more about the Korean War. Some of the text was hard to read due to faint text on busy background. I would love to see it again with more contrast. The word “relaxing” for the Indigenous girls in Residence is very interesting. They may look relaxed, but they certainly are not! Excited to read and more about this project!
- So glad I got to visit “Finding Voices”. Approaching history through the aesthetic is powerful in the sensorial embodiment of it all. I was especially taken with the box as I wanted to embark on my own journey in time to situate in a past I may not be aware of.
- Glad to be part of this important work! I’m interested w/the research participants’ journey of engaging with Difficult Knowledge, how were they able to think critically of the histories they encounter! Great work!
- Sheetal!!
- This was amazing! I am so proud of you! Thank you for amplifying our voices and sharing the Komagata Maru. Really means a lot to me! Congrats.
- A remarkable way to incorporate AR! I enjoyed the experience!
- I am glad to see continued discussion on residential schools in Canada, and the connection across the world.
- Congratulations! So happy to see you take up this space with some meaningful research. What surprised me? It’s a lot of work for your participants! That’s awesome you yielded so much.

- Sheetal, I was NOT surprised at what an awesome project this is. Some facts that surprised me:

-Canada has a Korean War Veterans Day.

-That I had never heard the story of Komagata Maru

Thank you for sharing this inspirational project. I'm sure your participants will go on to do amazing things, because of your influence. Congratulations!

- Incredible exhibit – and inspiring use of this important space. I was struck by the overlaying of questions that help interrogate the archive – the “Labatts” crate, etc....Congrats to the artists + wonderful project, Sheetal.
- What an amazing experience! I am so intrigued and excited to brainstorm how I can apply this in a math or business context! 😊
- Loved the QR code aspect! Never saw this within a gallery space like this. Such a brilliant thins! Good job 😊
- 😊
- Dear Sheetal, This is an empowering and deeply inspiring exhibit! Thank you for taking the time to share it with me! You have me thinking about who's histories we learn about and HOW it is taught! Can't wait to share with my colleagues!

Comments from Second Exhibition

- The photos reminded me of events, social situations seen in my past. I was surprised by the diversity of the topics researched. The sense that people felt secure talking about/working with controversial subjects must be very rewarding for everyone to take away.

- An amazing visual application of historic archives in today's curriculum! The AR experience allowed me to uncover this rich history in real-time, a beautiful way to teach history that I hope more educators adopt. The photographs chosen displayed a community that I had no idea existed! Beautiful work!
- Great work with the exhibition! Enjoyed the mixed media and diverse approach on sharing fully of Canada's history.
- Amazing and important work that was beautiful to discover. Forgotten histories that were so beautifully presented. I am so encouraged that the face of historical education is shifting within the birth of new educators. There is a bright hope for this future.
- Finding Voices is an exquisite creation that weaves a tapestry of silenced histories. Each construction stands on its own and can also be brought into conversation with the broader masterpiece. I can see myself using your work in my own teaching—as a pedagogical intervention, as a curricular attunement, as a provocation, and so much more.
- So very happy I came across the opportunity to be a part of this meaningful and creative project. Sharing my history and the histories of those of the Caribbean diaspora has brought me so much joy! I am forever grateful for this experience and I can't wait to implement this work in the classroom in the future.
- Great work on such an important project. As always, your work speaks to issues faced by so many marginalized communities + sheds light on those who are often excluded or forgotten. It was a privilege to witness your work in action.

Appendix N: Field/Observational Notes

January 9—Student A

- Prefers typable surveys for accessibility (talk to Gabby)
- Met up @ [at] YL [York Lanes] and walked in the snowy weather to Sensorium Loft
 - While walking, she talked to me about why she decided to become a teacher
- After Survey 1
 - Asked about the bronze plaque
 - “We don’t learn about Black and Brown histories”
 - Didn’t learn until uni [university] about the Holocaust
 - Tried out the app
 - Lots of conversations surrounding migration and citizenship
 - “erasures of history starts w/[with] the names of people” → interested in who they [the passengers] and what they have done and where they are now
 - [question from participant] Did Canada reconcile after the incident?
 - [Sheetal’s answer] apologies [were] made [by] the House of Commons → Student A rolled eyes
 - Newspaper clippings
 - Participant looked at the BC and Toronto Star newspapers
 - “headlines are really...something...” → in reference to the language used in newspaper headlines
 - Things I’ve noticed
 - Started w/[with] the binder

- Pulled out each item and used the index to reference what she is seeing
- Why AR? [questions posed to Student A]
 - Sparks curiosity
 - Educators can reimagine their classrooms
- Participants asked me questions about why there are colonies, why US is not a colony, why we don't learn about US history

January 12—Student B

- Pre-survey
 - Didn't learn much history in TC [Teacher College]
 - Very excited to be a part of the study
- Engagement with the trunk [archive box]
 - Started w/[with] binder
 - Launched app
 - Sense of curiosity, engagement, and wonder
 - Bronze plaque had issues loading trigger
 - Lots of curiosity w/[with] the AR and is excited to learn how to make it
 - Watched video [associated with bronze AR trigger]
 - Lots of pausing → may need to adjust timing
 - “students would be interested” → Student A joins this day
 - “students are not informed about history” (Student A)
 - “We mostly learn about history throughout TV”
 - “The online aspect is cool” (Student B)
 - B: teens love technology

- A: like how we get cultural artifacts
- Sheetal: are we seeing these cycles today?
 - A: 100%
 - B: Absolutely
- A: what is multiculturalism?
- B: can help students be engaged w/[with] history
- A: Can help students navigate difficult knowledge through engagement + tangible obj. [objects] → sparks curiosity

January 12 Workshop with Students A + B

- Talked about WebAR (program used at the time) and Library and Archives Canada → how to search, AR triggers, etc.
- Student B: students start using tech in Grade 1 → introduced via Chromebooks

January 25 (opening reception)

- Presentation @[at] Research into Practice class
- 11 people entered the gallery + a few more when I ran some errands (reported by Helen)
- AR server very slow (emailed WebAR)
- People walking, eating, trying to engage with AR → excitement when they managed to load the AR work
- Questions about the research process and my participants
- Students who don't know me were hesitant to engage w/[with] the work
 - Could it be how I interact?
- 1 colleague and friend from OCAD came into the gallery space after the reception was done to see the works

- She tried out the AR app and was interested in the open-source software used
- During the evening, I also did a virtual show around for a friend who could not make it but wanted to see the set up of the gallery space

January 26

- Visitor (later participant) came into the gallery to look at the work and ask questions about the study
 - Seems very curious about the study and about creativity and ways to be creative in history
 - 2nd year student → teachables in history and English
 - Interested in Caribbean history and migration + Caribana
 - Tried out the app on the walls → understand the instructions (needed no guidance)

January 30

- 11:30: Student A came into the gallery and brought friends
 - Friends (3) were intrigued about the research → asked about the process
 - Student A talk about the process and how she made the works
 - Gave Student A her debrief letter that can be used for her teaching portfolio
- 1:30: Visitor came to visit the gallery
 - Started with the behind-the-scenes photo-wall
 - Moved onto the Korean War photographs onwards → tried AR app
 - Difficulty with the Goodbye Residential School photograph
 - Moved onto the box installation
 - Asked if the work can be touched → label would be needed next time

- Started with the instructions binder and went through each object and AR works

February 2

- 2 people came into the gallery, looked quickly inside and then left
- Research into Practice course director came to visit → excited about the work and had a conversation about teaching resources, toolkits and subverting the classroom into critical sites of transformation

February 3

- 5 people came into the gallery space during the evening
 - 1 was a professor for Communications and Media Studies and 2 of her students who are her RAs
 - They tried out the AR and asked a lot of questions about the PhD process, the research study, the different historical events, etc.
 - 2 more people came into the gallery space (friends and colleagues from OCAD)
 - They tried out the AR works
 - Asked if the installation was touchable → will need to add a symbol to indicate that the installation is touchable
 - Asked questions about the program and the research study

February 13—Student C

- 11:30—sunny and cold
- Post survey 1—engagement with the box
 - Thought that the objects were real → assured that they are reproductions
 - Started w/[with] the images

- Question about who they pple [people] were and they context behind the objs. [objects]
- Questions about why they wanted to go to Canada if they were eventually going to be mistreated
- Started reading the binder
- “Malcolm Reid give me the ‘ick’ factor” → in relation to photographs of him
- Started the AR (12:33)
 - Bronze plaque/video
 - Kept hearing about apologies (hates them) → finds them repetitive
- Talked about his placement in Brampton
 - Land acknowledgements include Black history → feels that this may exclude Brown identities (reflecting demographics in classrooms)
 - Feels that de-streaming is met w/[with] no support → talked about textbooks being outdated and doesn’t reflect the current needs for classrooms

February 15—Student D

- 12:30: met at the Sensorium Loft (snowy)
- Asked questions about courses she was taking and liking: loves the interactive elements in literature and cultural courses in the BEd program
- “this would be great w/[with] primary school kids” → referring to it being tangible objects
- Started w/[with] looking @ [at] all the images → looked @ [at] binder after
- Asked questions while looking @ [at] the photos

- Why are the passengers wearing English clothing?
- Looked @ [at] newsprint clippings
 - Made a comment about how language is used to discriminate in newspapers
 - Did research on how a small town in Manitoba used certain languaging to exclude Jewish people from a beach
 - “we cannot accommodate for non-pork eaters, etc.”
- Loved learning through guided facilitation
- Read through all newspaper clippings
- Passenger Booklet
 - Did a close reading of all the passengers information → most are young due to being labourers in other British colonies
- AR components
 - Went through all the photos w/[with] the AR
 - Needed assistance w/[with] the AR → think about ways to facilitate and guide better for the exhibition
 - Surprised by toolkit for teachers for day of remembrance
- Kids can engage better w/[with] history
 - “kids will be active participants rather than bore them w/[with] textbooks”
 - “kids love technology”
 - “a toolkit will help teachers be interactive w/[with] kids”
- Excited to learn about how to make these pieces

February 16—Student E

- Engagement with the box

- Needed guided facilitation on how to approach the work
- Asked questions about who were the MPs
 - Sheetal: Whose voices were not heard?
 - Student E: Policy makers, passengers, citizens, pro-immigration advocates
- White men who are in power affect their policies
- Photo of the passengers
 - Asked about the quotations in the AR components → ifound it interesting how it contrasts w/[with] the MPs portrait AR components
- History classrooms are not given perspectives
 - De-streaming: not opposed to not having textbooks
 - “teachers need to interact more and have students engage w/[with] history in active ways”
 - “there’s not much difference b/w [between] academic vs. applied”
- Very timid to interact
- Interested about connecting the past w/[with] the present
 - “nothing will change if we stayed silent”
- Did not learn about KM [Komagata Maru] in HS [high school] or SS [secondary school]
 - No diverse perspectives
- “there’s a dominant narrative in history and everyone else is in the background”
- Video piece
 - Surprised by the politics of deporting a ship
- Book

- Asked why they [the passengers] were in their twenties
- Binder
 - Careful reading of the newspaper clippings
 - Used magnifying glass
 - “Newsprints indicates who is Canadian vs. not”
 - Basis of skin colour/origins
 - “there is a lot of othering I would say”
 - “headlines are screaming bias”
- Media AR piece
 - Will need to fix UX for that piece (kind of glitchy)
 - “they seem more skeptical in the BC one”
 - Toronto seems to have more faith
 - “the voices of the articles are not the passengers”
- Military AR piece
 - Might need to change prompt question
 - “it is hard to know which is the truth since the officer has more power”
 - Bias from the officers in power
 - Doesn’t trust the officer b/c [because] of his power and role
- Overall experience
 - Definitely better to have a guided “tour” of the objs. [objects] in history
 - “having the AR and objs.[objects] were very engaging”

April 4—Eleanor Winters Art Gallery

- 1 person showed up to visit

- Went around the gallery and then tried a few of the AR components
- Had a conversation on the process, the participants' choices for the works, the collaboration, and finding the gallery space
- 1 person came into the gallery space
 - Tried out the AR → made comment on how the text is a little small
 - Found it interesting to combine history with technology
 - Didn't stay long → was on break from the Experiential Education office
- 1 person came into the gallery
 - Didn't look around much as he planned to come for the closing reception

April 5—Closing Reception

- 17 people in attendance
 - Participants in this round showed up with friends and family
- Everyone who visited the gallery tried out the AR triggers with much success
- Adding the touch symbol for the installation piece was also successful
- People asked questions about the process, my research interest
- Participants looked very happy and proud in showcasing their works
- Did debrief for all three participants

Appendix O: Toolkit for History Educators

Lesson Plan for I/S Canadian History

Chapter Plan Information

Subject/Course Code: CHC2-Canadian History Since World War I

Grade Level: Grade 10

Topic: The Komagata Maru (1914) and Learning from the Archives

Time Range: 75 minutes (best done as an end of term ISU assignment)

Curriculum Expectations:

A1. Historical Inquiry: use the historical inquiry process and the concepts of historical thinking when investigating aspects of Canadian history since 1914. **This will be in the form of researching the archives and interacting with the archive box as an example of an outcome of historical inquiry.**

A2. Developing Transferable Skills: apply in everyday contexts skills developed through historical investigation and identify some careers in which these skills might be useful. **Students will learn about primary research skills (archival research) and how to mobilize their inquiries in the form of making (augmented reality)**

B1. Social, Economic, and Political Context: describe some key social, economic, and political events, trends, and developments between 1914 and 1929, and assess their significance for different groups in Canada. **The Komagata Maru is an example of how immigrations policies have shaped Canada's identity in 1914 and how immigration acceptance has shaped and evolved into the Multiculturalism Act of 1988. Students will learn how the people in power (i.e., PM Robert Borden and Immigration Inspector Reid) have used their power to shape the politics of belonging in Canada.**

B2. Communities, Conflict, and Cooperation: analyse some key interactions within and between different communities in Canada, and between Canada and the international community, from 1914 to 1929, and how they affected Canadian society and politics. **Students will learn to compare and contrast one historical event from the perspective of the passengers but also from the perspective of law, government representatives, and news media.**

B3. Identity, Citizenship, and Heritage: explain how various individuals, organizations, and specific social changes between 1914 and 1929 contributed to the development of identity, citizenship, and heritage in Canada. **Students will learn about how the Komagata Maru has impacted minority communities in British Columbia. Students will also connect how the past have shaped contemporary issues in Canada.**

Learning Skills:

Students will apply their historical inquiry skills for a research creation project of their historical event interest.

Content:**What do I want students to know?**

Content: This lesson plan delves into discussions on social justice issues in relation to Komagata Maru Incident of 1914—Canada’s biggest immigration discrimination that ended in casualties. The Komagata Maru is a reminder of one of many historical injustices in Canada that have been challenged. Students will learn about the Komagata Maru ship and its passengers, immigration policies and laws, and advocacy. While the House of Commons have made multiple apologies to the descendants of the passengers, being an active citizen means recognizing how the past have challenged our current notions of Canadian identity as well as what parts of the past have correlated to current social justice issues. While this historical event happened before the start of WWI, it is important for students to understand how policies and laws like the Continuous Journey Act have barred minorities from being part of the Canadian identity and how that has changed during WWI with the Conscription Act.

Process: Students will learn about what the archive has to offer when learning history, as well as primary research skills for historical inquiry and research creation. Students will also learn how research can intertwine with creation and exhibition as a form of knowledge mobilization and transferrable skills. A workshop will be provided to help students intertwine research with creation, as well as check-in and guidance to help students with their research creation works.

Product: Student will conduct their own historical inquiry research and create an augmented reality work that combines history with artistic contexts (see example below).

Students will...:

- Engage with an archive box to see how research (archival) and creation (augmented reality) can intertwine.
- Conduct archival research methods using online archive databases and other credible sources.
- Learn how to make augmented reality works using an open-source software (Pictarize)
- Conduct their own historical inquiry (Historical Thinking) project of intertwining archival research and augmented reality.

Assessment/Evaluation:***Class participation:***

Students will be assessed on their participation throughout the lesson through discussion and engagement with the archive box.

Assignments:

- Conducting an Historical Inquiry through Research Creation

Students will conduct their own historical inquiry and create something from what they have learned. There is no limit to what students can create. Students can either work individually or in groups. Historical Inquiry is limited to 1914, which includes but is not limited to the Komagata Maru or the starting of WWI. Students can choose their historical event and the theme/topic related to a social justice issue.

- Exhibition-style presentation

As part of knowledge mobilization, students will present their works in an exhibition-style showcase. Students will have autonomy over how they want their works to be showcased (eye-level vs floor piece, tech requirements, etc.). This part of the assignment becomes a part of transferrable skills, as students will learn how historical inquiry can be mobilized beyond the typical essay and tests.

Learning Context:

a. The Learners

- i. *What prior experiences, knowledge and skills do the learners bring with them to this learning experience?***

Students will have prior knowledge about historical inquiry skills through Unit 1's lesson on Historical Inquiry Skills. Students will also likely bring their own lived experiences by connecting history to the contemporary context.

- ii. *How will I differentiate the instruction (content, process and/or product) to ensure the inclusion of all learners?***

This lesson differentiates for students because it is multi-modal. Students will see how history is interpreted and created visually through the assignments. This lesson considers multiple intelligences:

Visual-Spatial—Through tactile engagement with the archive box and app. As well as through their research creation projects and exhibition.

Interpersonal—Students will be working together to collaborate on an exhibition.

Intrapersonal— Students will have the opportunity to complete their project on their own.

b. Learning Environments

- Classroom for exhibiting the work
- Independent work, group activity, whole class discussion

c. Resources/Materials

- Banker box for the archive box
- Printouts of archive contents (preferably on card stock)
- Magnifying glass, gloves, pencils, scrap paper for archive observations in groups
- Printout of QR Code for the AR app
- Printout of instructions
- Projector with cable for the workshop (link to PPT provided below)
- Computers for archival skills workshop

Teaching/Learning Strategies:

- Introducing the box and app and mini lesson on the Komagata Maru
 - Group activity where each group engages with an object in the box
- Class discussions
 - Connecting the historical event to broader social themes and topics
 - Connecting to contemporary issues
- Pictarize software
 - Workshop on how to make augmented reality works
 - Connecting to visual literacy skills → thinking about the role of images, texts, colours, etc. in creating meaningful and impactful historical inquiries
- Guiding through their projects (consultations)

Archive Box Contents

Finding Voices: Bringing the Archive into History Classrooms

Instructions, Archive Index, Historiography
Compiled by Sheetal Prasad

Introduction

Finding Voices: Bringing the Archives into History Classrooms is a doctoral research project that aims to engage students in multiple perspectives in Canadian history as well as navigate discussions surrounding race, gender, class, etc. This project is a reimagining of how history classrooms can integrate multimodal educational tools to transform traditional history classrooms to become a site for critical historical inquiry.

Recent political events, such as the toppling of the statue of Egerton Ryerson (CBC, 2021) and the ongoing discovery of human remains at so-called Indian Residential Schools (Dickinson & Watson, 2021) across Canada, have exposed traumatic histories of racist violence in Canada. These events speak to the need to revise and revitalize existing curricular approaches so that students are better prepared to challenge systemic racism. Given the ongoing impacts of traumatic histories on citizens in contemporary multicultural Canada, the omission of racialized and marginalized histories from secondary-level curriculum texts must be systemically addressed. The Canadian history curriculum issued by the Ontario Ministry of Education (2018) is framed through a settler-colonial perspective (Leonardo, 2013, p. 26) in which marginalized and racialized groups are often pushed to the sidelines of “common” curriculum policy and delivery. The lives and lived experiences of racialized and marginalized historical agents are rarely—if ever—recognized in the public secondary school history curriculum.

This project is a departure from what students currently do in history classrooms. From my experiences in high school, a typical history classroom consists of a room with tables and chairs neatly lined, and a projector in the front of the class. Typically, the teacher lectures on about the chapter or unit dictated by the mandated history textbook(s). Traditionally, history is taught from World War I to “present-day”. Information is crammed into the minds of students for over an hour before they head off to their next class. A ‘mind-shift’ is currently happening in Ontario where teachers are looking towards creating inquiry-based connections with students to create forms of representation.

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Leonardo, Z. (2013). Race frameworks: A multidimensional theory of racism and education. Teachers College Press.

Ontario Ministry of Education. (2018). The Ontario Curriculum: Grades 9 and 10: Canadian and World Studies. London, Canada: Queen's Printer for Ontario. Retrieved from <http://www.edu.gov.on.ca/eng/curriculum/secondary/canworld910curr2018.pdf>

Instructions

You are an historian visiting the archives. You travel to Ottawa to visit the Library and Archives Canada (LAC). You walk up the steps and pass a Lea Vivot statue of The Secret Bench of Knowledge (1994). You walk through the glass doors and greet yourself to the front desk security and hand your ID for check-in. You are given a lanyard with your LAC ID. You drop off your stuff in your locker and then head upstairs. The clerk upstairs hands you a box with “everything” about the Komagata Maru. You sit down (or stand, it's up to you) and begin examining the box to learn about an event in history typically not taught in Ontario schools.

The archive box contains the following:

- Archival reproductions of images
- Booklet
- Blank paper name tags
- Magnifying Glasses
- White Gloves
- A notebook or paper
- Pencils
- Binder with all information

The images on cardstock in the archive box can be activated through augmented reality. The augmented reality software is web-based, meaning you can access the AR components by scanning the QR Code on the box's lid.

In archival research, archivists, historians, and researchers wear white gloves to prevent oils from ruining the archival artefacts. To use the archive index, each item has a series of numbers and letters that will correspond to the charts. The charts give information about the item ranging from material and background info. This Archive Index is simplified to allow viewers to understand the artefacts without being bogged down by administrative cataloguing.

QR Code



Archive Index


Code: SC529	Label: Portrait of B.C. MPs	Found at: Library and Archive Canada (Ottawa)	Fond: Gordon, Robert S., 1974-005
<p>Background Info: A black and white group portrait of the politicians. Starting from the top left was Herbert Sylvester Clements, who was the Conservative MP for the Comox-Atlin constituency. Next to him and looking away from the camera is Henry Herbert Stevens, who was the Conservative MP for the Vancouver City constituency. He was also one of the main contributors to growing anti-Asian immigration sentiments amongst white settler publics during the historical event. He—in present day discourse—is a white supremacist who envisioned a Canada of white-only immigrants mainly from Britain. Next to him and looking away is James Davis Taylor who was the MP for the New Westminster constituency. Next to him is MP Francis Henry Shepherd for the Nanaimo constituency. In the front row starting on the left is Robert Francis Green who was acclaimed to the Kootenay constituency. Next to him is Martin Burrell who was MP for the Yale-Cariboo</p>			


<p>constituency as well as appointed Minister of Agriculture and Colonization. Lastly, next to him is George Henry Barnard who was MP for the Victoria City constituency.</p>	
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<p>Code: WS423</p>	<p>Label: Immigration Officers (Insp. Reid), HH Stevens and reporters "Komagata Maru"</p>	<p>Found at: Library and Archive Canada (Ottawa)</p>	<p>Fond: Millar, David, 1970-007</p>
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Background Info:
Immigration Inspector Malcolm Reid (second from the left) and HH Stevens (next to Reid) talk to reporters about the Komagata Maru and its passengers, resulting in media bias in B.C. and Toronto newspapers.



Code: WS424	Label: Inspector Reid (centre left) and HH Stevens (centre right) on board the "Komagatamaru" in English Bay	Found at: Library and Archive Canada (Ottawa)	Fond: Millar, David, 1970-007
Background Info: Inspector Reid and HH Stevens (MP) inspect the Komagata Maru afar from shore.			

Code: WS436	Label: Troops	Found at: Library and Archive Canada (Ottawa)	Fond: Millar, David, 1970-007
Background Info: Canadian Troops prepare to board the Komagata Maru via the SS Rainbow. This resulted in the passengers trying to defend themselves with coal. In telegraphs to the PM Robert Borden, it is alleged that the passengers rioted which resulted in the troops defending themselves.			

Code: WS411	Label: Sikhs in turbans aboard the Komagata Maru	Found at: Library and Archive Canada (Ottawa)	Fond: Millar, David, 1970-007
<p>Background Info: Some of the passengers on the Komagata Maru. In total, there were 376 passengers who were trying to immigrate to Canada from Singapore. In the end, challenging the racist immigration laws resulted in deportation (save for 7 passengers who were granted entry) to Calcutta which resulted in a bloody riot. This was considered Canada's biggest immigration failure that ended in bloodshed. The leader of the expedition, Gurdit Singh (centre left) wrote a book detailing his perspectives on this endeavour.</p>			

Code: FLX/MC001	Label: Bronze Plaque of the Komagata Maru	Found at: Komagata Maru installation, and Missing Fonds installation	Fond: Sheetal Prasad's BFA and MFA thesis
Background Info: This bronze plaque was made in 2017 as part of a BFA thesis exhibition, <i>Flux</i> . It was later featured in a 2020 MFA thesis, <i>[Re]Archive: South Asian Perspectives of Canadian History</i> . The SS Komagata Maru was subjected to much controversy when it came to deportation. Due to laws in Canada, ships are deported based on their origins. The ship itself was owned by a Japanese businessman, but the ship was created in Europe while the passengers themselves were from British-controlled India.			

Code: FLX/MC002	Label: Komagata Maru Passengers Manifest	Found at: Komagata Maru installation, and Missing Fonds installation	Fond: Sheetal Prasad's BFA and MFA thesis
Background Info: This black book was made as part of the BFA and MFA thesis exhibitions and is a simplified version of a much detailed passengers list. The passengers manifest with extra information can be originally found at the Simon Fraser University archives. This Passengers List details the passengers, their age, and what happened after the court ruling.		No image available	

Code: NWSPPR	Label: Newspaper Clippings	Found at: The Daily News (B.C.) and The Toronto Daily Star	Fond: Various fonds
Background Info: These are various newspaper clippings that talks about the Komagata Maru.		Images below	

Historiography of the Komagata Maru

Note: This is a simplified version of events. The video for augmented bronze plaque has more details about the events.

The SS Komagata Maru was a chartered ship (carrying over 300 Indian passengers) that challenged Canada's immigration practices in 1914. The immigration laws at the time included a head tax of \$200 and the ship must make a continuous journey from the port of origin to British Columbia.

When the ship successfully arrived at the Port of Vancouver, they were barred from entry. After a legal battle with the B.C. Court of Appeal, only a few passengers were granted entry, while the rest were deported to India's Kolkata port, Budge Budge, where violence ensued, resulting in 20 passengers to be murdered by the British Indian police. This is regarded as Canada's immigration failure with bloodshed (Johnston, 2022). The Komagata Maru has shaped our present-day lived experiences. Shortly after the deportation, Canada tightened its immigration laws as well as established anti-immigrant laws (the internment camps of Eastern Europeans) during World War I. Currently, even though the Canadian government has progressed to be tolerant of immigrants, migrants and refugees, debates of immigration policies have been made. Anti-immigrant sentiments are still prevalent. During the 2018 municipal elections, Vancouver Twitter users conveyed their sentiments through a call to "take Vancouver back from the Chinese" (Chen, 2019). Due to the history of Sinophobia in B.C., the cycle of white-supremacist and colonialist thoughts and actions have continued to seep itself into political and politicized institutions. This project is a small reminder of how these sentiments have grown (or in some cases...faded) to present day.

Bibliography

Johnston, H. (2021). Komagata Maru. In The Canadian Encyclopedia. Retrieved from <https://www.thecanadianencyclopedia.ca/en/article/komagata-maru>

Blank Archive IDs

<p>This badge is to certify that:</p> <p>has permission to conduct research in the Finding Voices archives.</p>	<p>This badge is to certify that:</p> <p>has permission to conduct research in the Finding Voices archives.</p>
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Images

Below are images used for the archive box. Please print them out and place them in a bank box with the other items listed above.

Affair at Singapore

By RONALD KENVYN.

THE "Twenty-five Years Ago" column of The Vancouver Daily Province recently contained this item:

"MUTINY QUELLED—Four hundred members of the mutinous Indian regiment which revolted at Singapore on February 15, have been killed as well as seven German prisoners from the detention camp who joined the natives."

This affair at Singapore was linked to Vancouver in a widespread German plot to spread disaffection in India. Long before the war of 1914 broke out German agents were busy in India and elsewhere spreading the poisonous seeds of propaganda against British rule.

A revolutionary Indian party established headquarters in California and from there conducted seditious activities in India and to some extent in British Columbia.

The Komagata Maru expedition was one item on this programme, backed by German money. This Japanese steamer reached Vancouver on May 23, 1914, with 376 East Indians aboard. They had been warned before leaving the Orient that they would not be allowed to land in Canada, but came just the same. The German inspirers of this voyage counted on the men being sent back to India and spreading disaffection, and this actually happened.

The Komagata Maru remained at anchor in Burrard Inlet until July 23, 1914, when she was escorted to sea by the Canadian cruiser Rainbow. Shortly after she left, just twelve days before the Great War broke out on August 4, a series of crimes of violence swept the Sikh colony in Vancouver, which had split over the Komagata Maru venture.

On August 31 Harman Singh was found with his head severed.

On September 3 Argan Singh was fatally shot through the throat.

On September 6 Bhag Singh and Badan Singh were killed and six wounded in the Sikh Temple by Bela Singh.

Bela Singh gave himself up and pleaded self-defense. While his trial was in progress Inspector Hopkinson of the Canadian immigration department, formerly of the Madras police, was shot and killed in the Vancouver Courthouse by Mewa Singh on October 21. Mewa Singh was convicted and hanged.

That made six deaths here arising out of the Komagata Maru, and years later, in 1934, Bela Singh was murdered in India by enemies who had kept on his trail after he left Vancouver.

When the Komagata Maru men returned to Calcutta they refused to board a train to take them back to the Punjab. They resisted the police, produced revolvers and opened fire. Troops were summoned and in the resulting engagement several lives were lost.

The next outbreak came at Singapore, where an Indian regiment mutinied, fired on their officers and released the Germans who had been interned. Luckily naval aid was at hand and the men were rounded up.

Swift justice was necessary. The whole regiment was tried by court martial in batches. Those found guilty were sentenced to death and shot publicly. Each man was tied to a post with a firing party of five men in front of each prisoner.

A printed notice on the posts set out briefly and grimly what was happening. The notice was in English, Hindustani and Chinese.

One of these leaflets is in my possession. It reads:

MARTIAL LAW.

These men of the Fifth Light Infantry have been found guilty of joining in a mutiny and some of them of firing on their superior officers. They have been false to their oath as soldiers of HIS MAJESTY THE KING EMPEROR. They have been tried in open court and deserve the sentence awarded.

THUS JUSTICE IS DONE.

Figure 23 Affair at Singapore / David Millar fonds / LAC / R5813-1-5-E

ANOTHER BATCH OF THE HINDUS ARE COMING

Premier Borden Stays at Ottawa To Meet the New Situation.

Special to The Star.

Ottawa, July 23.—The Komagata Maru has gone and another shipload of Hindus is near Vancouver. This information came to immigration officials this morning in a despatch from the immigration agent, Malcolm Reid, at the Pacific coast. This telegram stated that the Komagata Maru sailed at five a.m., and that there were reports of another shipload with East Indians being off Cape Flattery.

The message from Mr. Reid created consternation here. The Komagata Maru interfered with the holiday of Premier Borden, Minister of Justice Doherty, and a number of officials. The prospect of another incident of the same kind is looked forward to with great uneasiness.

A telegram was at once despatched to Mr. Reid to have the second consignment of Hindus located without delay and to take strict measures to prevent the landing of the Hindus.

A wireless message was sent to the Rainbow to leave the Komagata Maru as soon as the boat is safely started for India, and to sweep the horizon for the second ship.

It is feared here that an effort will be made to land these Hindus at some obscure port and scatter them through the Province of British Columbia. If this were successfully done the Government would have a larger task of deportation on its hands than that it has been struggling with for the past three months with the Komagata Maru party.

The individuals would have to be arrested, put through the courts and sent out separately. It is feared that there would be serious riots by the Hindus now domiciled in British Columbia before the newcomers could be disposed of.

Figure 24 Another Batch of Hindus are Coming / Toronto Star Archives

HINDUS SAIL FOR HOME, BEER, SHEEP, AND FOWL

They Demanded Liberal Provisions For the Voyage Over the Pacific.

Canadian Press Despatch:

Vancouver, B.C., July 23.—Shortly after five o'clock this morning the Japanese steamer Komagata Maru steamed out of the harbor on her way back to the Orient. The Hindus on board made no demonstration, and the services of local militia companies, who spent the night on the wharf, were not needed. The vessel was convoyed out of the harbor by the Canadian cruiser Rainbow, which will accompany her to a point off Vancouver Island.

Two months ago to-day the Komagata Maru arrived in Vancouver harbor.

Among the demands formulated by the Hindus in the last minute requests were a liberal supply of beer for the homeward trip, two sheep for each man, and sufficient live fowl to give each man one a day on the trip across the Pacific.

Immigration Inspector Reid stated last night that the demands would be probably complied with, and that the provisions they asked would likely be put on board the Komagata.

Figure 25 Hindus sail for home, beer, sheep, and fowl / Toronto Star Archives

GURDIK SINGH MAKES SOME MORE DEMANDS

Refuses To Sail Until Additional Provisions Are Put on Board.

Vancouver, July 23.—Gurdit Singh, the leader of the Hindus on board the Komagata Maru, which was supposed to have sailed for the Orient at daybreak this morning, notified the immigration authorities last night that he would not sail until more provisions had been put on board. Already thousands of dollars' worth of food had been put on the vessel, but Gurdit Singh demanded live sheep, fowls, and additional kitchen outfit.

There are rumors afloat that the Hindus have again taken possession of the Komagata Maru, that they have gotten rid of the crew, and that four members of the crew have been drowned. Up to the present there has been no means of verifying these reports.

It is further stated that two immigration officials are aboard the Komagata Maru, whose names cannot be ascertained, and that they are being held as hostages.

The Sixth Regiment was called out last night and patrolled the wharves.

Off Vancouver Island two Japanese cruisers are said to be waiting to convoy the Komagata Maru to Oriental waters.

No shore-leave has been granted to the complement of H.M.C.S. Rainbow. The men were all standing by Tuesday with the exception of the steward's department. They came ashore to buy supplies, and meat, vegetables, and groceries were taken off to the cruiser yesterday afternoon. Yesterday morning further supplies were sent aboard the warship, and it is understood that she is to escort the Komagata Maru outside Cape Flattery and beyond the three-mile limit.

Figure 26 Gurdik Singh makes some more demands / Toronto Star Archives



Figure 27 The British Columbia Members for the Canadian House of Commons/ Henry Herbert Stevens fonds/ LAC/200496



Figure 28 Immigration Officers (Insp. Reid), HH Stevens and reporters "Komagata Maru" / David Millar fonds/ LAC/R5813-1-5-E



Figure 29 Inspector Reid (centre left) and HH Stevens (centre right) on board the "Komagatamaru" in English Bay / David Millar fonds/ LAC / R5813-1-5-E



Figure 30 Troops / David Millar fonds/LAC / R5813-1-5-E



Figure 31 Sikhs in turbans aboard the Komagata Maru / David Millar fonds/ LAC / R5813-1-5-E



Figure 32 Sheetal Prasad, Komagata Maru ship, bronze plaque, 2017

Passenger Booklet:

https://drive.google.com/file/d/15NpXC5ZVWqXlzSYJeMMXZ95lq8BwQxP6/view?usp=share_link

