Drawing Lines with AI:
An A/r/tographic Exploration of Artificial Intelligence Image Generators for Visual Research in Post-Secondary Drawing Education

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A THESIS SUBMITTED TO
THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

GRADUATE PROGRAM IN INTERDISCIPLINARY STUDIES
YORK UNIVERSITY
TORONTO, ONTARIO

September 2026

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Abstract

This thesis examines Artificial Intelligence (AI) image generators in visual research for drawing practices and visual arts education. The thesis situates these systems within a longer history of technological innovations and reference sources used by artists. Working through the arts-based methodology of a/r/tography which integrates overlapping and emerging experiences as artist/researcher/teacher, the study explores the impacts of integrating generative AI (GenAI) technology in post-secondary art education through a mixed-methods study involving autoethnographic inquiry and classroom-based research with visual arts students in a third-year, college-level explorative drawing methods class. The study specifically examines how co-creative encounters with AI image generators might affect creative and technical opportunities in visual research for drawing-based practices. Findings reveal possible opportunities, limitations, and risks of using this technology in drawing process work as well as strong student resistance to engage with GenAI systems due to ethical, environmental, and pedagogical concerns. As a result, the project evolved from pursuing how GenAI might be integrated into visual arts education to seeking how to preserve space for students who reject it or prefer to use more traditional processes. The research provides insights into how artists and art students are setting boundaries around their creative practices as they respond to GenAI systems permeating many other parts of their lives.

Acknowledgements

I would like to sincerely acknowledge the support I have received from my academic committee supervisors who guided me throughout my graduate studies. Thank you to Professor Jessica Campbell who reminded me to focus on the embodied practices at the heart of drawing and art education. Thank you to Professor Kurt Thumlert who encouraged me to push back against rhetoric and to be mindful of the many actors who condition the creative processes at play in my research. And thank you to Professor sava saheli singh who urged me not to accept GenAI and to keep all of the bad shit that it brings into the world in mind whenever I believe that it may be useful.

Thank you to my students who listened to my cautious considerations for AI image generators in drawing practices and shared their informed reasoning for choosing other options. May you always be able to choose the way that best suits your idiosyncratic artistic expressions.

I would also like to acknowledge the guidance of my Graduate Programme Director, Dr. Kymberley Bird, and Graduate Program Administrator, Fiona Fernandes, in the Faculty of Interdisciplinary Studies. Finally, I am grateful to my family who accompanied me on this academic journey: thank you to my wife, Angela, for her patience and understanding; and to my children, Elsa and Iver, whom I kept in my heart throughout this process and who will be the ones with the long road ahead in an AI-affected world.

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Chapter 1: Introduction

Research Problem and Context

In my lifetime, multiple waves of digital technology innovations have impacted the conditions under which artists learn, work, and survive. From personal computing and the early internet to desktop publishing, smartphones, social media, and online commerce, these systems have repeatedly opened some possibilities while constraining others. In this thesis, I explore the impacts of artificial intelligence (AI) as yet another moment of technological influence, and how recent generative AI (GenAI) systems might affect embodied drawing practices, classroom experience, and the creative decisions made by artists and students. I approach this inquiry from my own situated position as an artist, educator, and researcher, using autoethnography and classroom-based research to examine how GenAI enters the visual research stage of drawing-based practice, and how human agency is shaped through interactions with machines, materials and contexts.

In *The Death of the Artist: How Creators Are Struggling to Survive in the Age of Billionaires and Big Tech* (2020), William Deresiewicz traces the changing social and economic position of the artist across several historical eras, from the pre-Renaissance artisan as skilled labourer to the intellectual artist of the Renaissance, the romantic bohemian of the nineteenth century, the professional within the institutional systems of the twentieth century, and now to a new, unstable digital-age condition shaped by platform capitalism and Big Tech. Deresiewicz argues that the digital era introduced a profound contradiction where, on the one hand, technology made production and distribution appear easier, more accessible, and more democratic; on the other hand, it weakened artists' livelihoods by shifting value away from creators and toward platforms, distributors, and corporate systems. This contradiction remains central to my thesis because it helps frame GenAI not as an isolated innovation, but as part of a longer history in which technology reorganizes artistic labour, visibility, and value.

This concern is reiterated by Sonja Drimmer (*Artforum,* April 2025), who extends the critique of digital transformation into the classroom and the current AI moment. Drimmer cautions against treating emerging technologies as neutral tools or inevitable pedagogical progress and instead asks us to consider how they become entangled with institutional pressures, public disinvestment, and widening inequities in higher education. Her questions are especially useful here because they

shift attention from novelty to consequence: who pays for these systems, who profits from them, who is expected to adopt them, who is positioned to resist them, and what problem are they actually being asked to solve? In this thesis, I take up those questions not to dismiss technological innovation, but to resist the idea that adoption is automatically progressive or pedagogically justified.

Deresiewicz (2020) and Drimmer (2025) each point to an earlier institutional model in which artists were supported by publishers, galleries, universities, labels, studios, and museums. The turn to digital platforms, they argue, disrupted that arrangement by ostensibly making art easier to reproduce, circulate, and monetize in ways that often favoured visibility over material support. Artists were increasingly pushed toward self-branding, entrepreneurial labour, and constant online presence, while educational institutions also faced pressure to adjust to these shifting demands. For both authors, the major shift was not simply that digital tools became available; it was that dominant digital technologies restructured the arts economy, shifted what little power artists and educational institutions had toward large platforms and corporate systems, and left creators, students, and teachers in an even more precarious state. GenAI intensifies this pattern, but it also differs from earlier technologies in important ways: it depends on an enormous infrastructure with unprecedented financial and ecological draws, it displaces and devalues existing creative work, and it complicates unresolved ethical concerns around authorship, ownership, attribution, and consent. My interest in this thesis is not simply how GenAI can be used, but what its use reveals about the changing conditions of artistic practice, teaching, and creative labour.

In my own professional practice, digital technology has long been entangled with creative exploration, skill development, and entrepreneurial survival. I have used desktop publishing, video editing, website design, social media, and digital drawing tablets to extend my works on paper and share them more widely. At the same time, my experience as an artist in the digital age has been precarious, leading me to depend on teaching in ways that echo Deresiewicz's (2020) account of how many artists survive by other means for financial dependence, such as teaching, rather than exclusively by making art. As a part-time professor in college visual arts programs, I have taught drawing and design courses across multiple levels, from foundational studio work to more conceptual and digitally mediated approaches. I have worked with students as they develop their own practices and encounter the increasing expectation of fluency in digital systems. This thesis is informed by what I have experienced in my own practice and by what I have observed in the classroom as students and I now respond to GenAI's emergence.

As I began teaching in 2018, the Canadian government identified the transformation of the arts through digital technologies as one of the "Next Generation of Emerging Global Challenges," calling for collaborative and cross-sectoral research (Antal, 2018). Since then, the pace of change has accelerated due to major impacts from the COVID-19 pandemic that forced students and teachers into awkward and isolating online learning environments, and the widespread emergence of GenAI. AI technology has existed for many decades and included rule-based expert systems, early chatbots like ELIZA (1966), IBM's Deep Blue (1997), and DeepMind's AlphaGo (2016), however recent generative types of AI systems—beginning with OpenAI's release of the DALL-E image generator in January of 2021 and, subsequently, the ChatGPT chatbot in November 2022—have become exponentially more powerful and ubiquitous as they enable users to generate images, music, video, and text using natural language prompts from their personal devices. While it was compelling for people to use these publicly available products to generate a lot of content very quickly, these products also generated a lot of harmful and inaccurate results which has been capitalized on to quickly generate and propagate misinformation, disinformation, and fraud. My attention, like many others, was caught by the perceived impressive abilities of GenAI systems, not to mention the billions of dollars invested in the technology and the pronouncements that it would either cure or destroy everything. Many artists and students, meanwhile, fretted over how publicly available AI image generators—which seemed to render formerly complex digital and material artistic practices into automated, instant, polished outputs—would affect their chosen career paths. So began my initial foray into what image generators could do, and how they might affect the lives and creative practices of those in the arts community.

When I began my master's in Interdisciplinary Studies at York, I was open to the possibility that, if AI were incorporated thoughtfully into current creative and pedagogical practices, it could benefit students by preparing them for a world in which knowledge of this technology would be an essential employment skill and introducing them to a collaborative partner that would augment their creative capacities. I quickly realized, based on conversations with faculty and students, opinions of artists expressed online, and some of the academic literature I was reading, that this was an uncommon perspective. I soon learned more about the constellation of conflicts and concerns surrounding GenAI technology: the manner in which generative systems have been built by harvesting an internet's worth of content in ways that test the boundaries of copyright and fair use (Amarikwa, 2024; Doctorow, 2025; Buick, 2024); the disregard for the impacts on living artists whose work the systems supplant (Heikkilä, 2022; Porquet et al., 2025; Doyle, 2024; Waikar, 2025;

Goetze, 2024; Pittis, 2023; Meyrat, 2023) and on the data workers who sift through the most disturbing material of our civilization to create safeguards for the rest of us (Van Den Broek, 2025; Merchant, 2023); the biases, stereotypes, and misinformation sealed in and amplified by recent GenAI systems as well as updates to existing technology such as search engines (Lindemann, 2025; Noble, 2018; Black & Fullerton, 2020); the enormous draw these systems place on already depleted natural resources (Zewe, 2025; Jiang et al., 2024; Li et al., 2025); and the hegemonic systems of power that AI technologies support (Dakakni, 2025; Khanal, 2025; Korinek & Stiglitz, 2021; Weber & Stanton, 2019; Hao, 2025). Meanwhile, the benefits of the technology were being heavily promoted by corporations and institutional leaders despite limited and uneven evidence of educational benefit, and the deleterious effects that were already being recognized, particularly within studies related to education (Yoon, 2026; Selwyn, 2024; Williamson, 2024). As I engaged with these tensions, my stance shifted from cautious openness toward a more critical orientation, one that took seriously not only when AI might be used, but also when it should not be.

As an educator beginning a study on GenAI in drawing pedagogy, I found myself in a space of ambiguity. I did not want these systems to replace embodied art practices or override artistic intention. I did want to consider systems that respected artists' rights and to prioritize students' rights to choose whether or not to engage with GenAI. I sought to test the technology myself so that I could speak from experience rather than abstraction and understand how GenAI might affect creative processes not only in theory but in practice. Throughout my research, I remained committed to valuing the tactile process of drawing—with pencils, pens, and pastels on paper—as a central and enduring mode of artistic expression and as a meaningful, rigorous, and integral aspect of creative practices for the students in my classrooms. In what follows, I outline the significance of the study, define key terms, situate myself in the project, state the research objectives and questions, describe the interdisciplinary approach, acknowledge scope and limitations, and map the structure of the thesis.

Significance of the Study

This study matters because GenAI is being introduced into post-secondary education at a pace that exceeds our collective understanding of its effects on learning, creativity, and critical judgment. My recent participation in an AI curriculum integration project, discussed more fully in Chapter 7, reflects the institutional pressure many colleges feel to incorporate AI into arts

education. This thesis responds to that pressure by focusing on the impacts of GenAI within embodied drawing practices and the lived experience of art students who must decide whether and how to engage with it. It contributes a situated, practitioner-based account to a field often dominated by policy statements, technical promotion, and broad claims about efficiency. It also takes seriously a possibility that institutional enthusiasm often overlooks: that refusal, restraint, or non-use can be pedagogically meaningful. In that sense, the study offers educators, students, and administrators a grounded basis for making thoughtful decisions about if, how, and why GenAI might belong in art classrooms.

Definitions of Key Terms

This study uses several terms that carry different meanings across disciplines, and they are defined here as I use them throughout the thesis.

- A/r/tography: an arts-based research methodology that integrates the overlapping identities and practices of the artist, researcher, and teacher (a/r/t) as a way of producing knowledge through making, inquiry, and pedagogy simultaneously. *(See A/r/tography section in Chapter 2)*
- Generative AI (GenAI): a class of ML systems trained on large datasets that generate images, text, audio, or other media in response to natural language prompts. In this thesis, the term refers primarily to text-to-image AI image generators (e.g., Adobe Firefly, Midjourney, DALL-E). GenAI sits within the broader umbrella of AI, which also includes non-generative ML systems such as classification, pattern recognition, predictive systems, and recommendation algorithms. *(See Generative AI section in Chapter 2)*
- Co-creation: a making process in which the outcome emerges from the interaction and 'distributed agency' of multiple participants. I use the term within a posthumanist context to include not only the human artist and the AI system but also other non-human participants such as materials, tools, and the spaces of work—all of which exert influence on what is made. *(See Posthumanism Section in Chapter 2)*
- Visual Research: the ways artists gather and process visual information in the exploratory stage of artistic practice that precedes and informs a finished work. *(See Visual Research Section in Chapter 2)*

- Ideation: within this study, ideation refers to more than brainstorming or conceptual development; it is an iterative process that includes research, problem definition, testing, and decision-making across multiple work sessions.

Researcher Positionality

Since this thesis uses autoethnographic and a/r/tographic methods, my position is not incidental to the study but central to it. Reflexivity is therefore a methodological requirement, not an optional gesture. I write as a practising artist whose work is rooted in traditional drawing materials; as a part-time college instructor who depends on teaching for stable income; and as a researcher who entered this project with cautious openness and moved toward a more critical stance over time. I came of age through successive waves of digital technology, and I carry both appreciation for what those systems have made possible and concern about the costs and limitations they bring. I am also a parent of teenagers and a teacher of young adults, which means I encounter technological change across generations from a partial but useful vantage point. My position as an artist-educator has also been shaped by access to formal art education, artistic communities and environments, post-secondary teaching, digital tools, and the time and institutional resources required to develop both studio and technological literacies. These conditions informed the questions I was able to ask, the forms of experimentation available to me, and my initial willingness to test AI image generators; future research should attend to how unequal access to artistic training, technology, disability accommodations, language, culture, gender, and economic resources may differently shape artists' and students' encounters with, uses of, or refusals of GenAI. Rather than claim neutrality, I have tried to make my position visible so that readers can weigh my interpretations accordingly, and so that my role as both teacher and researcher in the classroom component of the study remains explicit rather than implied.

Research Objectives and Questions

This thesis uses an arts-based methodology to investigate the impacts of using AI image generators within visual research that supports embodied drawing practices—not to replace final artistic outcomes. The study proceeds from a posthumanist premise that creative agency of humans in this setting is conditioned through the ongoing interactions with the technologies and physical

materials they choose to use as well as their spaces of making. Rather than attributing full autonomy to the artist or positioning non-human actors as eroding human agency, this framing foregrounds how skill and learning develop through a relational process and acknowledges the role of non-human influences on the goals of the participants. Using this approach, I sought to answer the following central research question of this thesis:
How might co-creative encounters with AI image generators affect creative and technical opportunities in visual research for drawing-based practices?

In pursuing this question, the study set out to meet the following objectives:

1. To identify the potential benefits, limitations, and risks of using AI image generators within the visual research stage of drawing-based practice;
2. To examine, through autoethnographic inquiry, how AI image generators function alongside other traditional and digitally curated materials;
3. To document, through classroom-based research, how upper-level college art students experience, accept, or reject AI image generators in their process work;
4. To situate these contemporary practices and debates within a longer art-historical lineage of reference tools and technological mediation in the arts;
5. To develop practical, critically grounded guidelines for educators considering the principled exclusion or integration of GenAI in art education.

The study explored these objectives through both autoethnographic inquiry and classroom-based research with upper-level college art students. Participants—including myself—were invited to generate reference images using a variety of means, including AI image generators, and to document process work, written reflections, and final drawing outcomes. My research follows those who argue that a deliberate way forward with GenAI systems is to focus on what artists use them to do and how they serve the artist's purposes rather than concentrating on its capabilities (Bender & Inie, 2026). As the project unfolded, however, strong student resistance to GenAI emerged as a central finding, and the focus shifted toward understanding students' choices for visual research and considering how art education might create space for both engagement with and principled refusal of GenAI systems. I signal that shift here as an orientation for the chapters that follow; the findings themselves are developed in Chapters 5 through 7.

Overview of the Interdisciplinary Study

This research draws on Visual Arts, Education, and Art History to examine GenAI as a contemporary technological development within a longer history of mediation in the arts. It treats AI-generated images as provisional reference material within visual arts practice in order to explore how such images influence research processes, concept development, and embodied outcomes. The research asks how artists might revise, critique, and transform those images into hand-made, personally meaningful drawing-based responses using physical materials and mark-making. The study is guided by a/r/tography as an arts-based methodology, and it is informed by Constructivist Learning Theory as the pedagogical orientation that supports inquiry through active meaning-making. It also draws on Nicholas Leonard's concept of Entanglement Art Education, which helps frame learning as relational and situated rather than isolated or purely individual. Throughout the study, I attend to how agency is distributed across the human participant, the technologies in use, and the materials and spaces of making while assessing the human artist's intentions and decisions in the process.

Visual Arts

Within Visual Arts, this project examines agency and authorship in co-creative practices, the ways artists are responding to generative systems in their work, and the political discourse surrounding artists' relationships with AI. The thesis contributes to research that supports critical and responsible conversations about technological mediation: how artists might test, contest, or decline AI, and how they might set guardrails around their creative practice while still choosing to use AI for specific purposes. It adds to conversations about creative authenticity, the role of reference materials in artistic development, and technological mediation in analogue practice. It also addresses a gap in the literature concerning if, how, and to what extent AI image generators might be used in process work for artistic development, including in upper-year post-secondary visual arts classes where students are expected to move beyond foundational skill-building into more conceptual, self-directed work.

Education

Within Education, the thesis examines the tension between the narratives of efficiency and creative enhancement promoted by AI companies and the ethical concerns surrounding these systems. The

study contributes to research on pedagogy, classroom culture, and student agency by considering how learners might experiment with AI as an optional system while also preserving room for transparent attribution, critical reflection, and non-AI alternatives. It addresses gaps in pedagogical support and institutional guidance for AI integration in higher education visual arts programs.

Art History

Art History provides a historical lens for understanding drawing as an evolving practice shaped by shifts in tools, techniques, technologies, and traditions. This thesis situates AI image generation within a longer record of technological mediation in the arts, showing how recent GenAI systems resemble earlier innovations in some respects while differing from them in important ways. It draws on the history of visual references in academic art training, the enduring role of drawing as an exploratory process, and the material intentionality of manual mark-making as evidence of artistic decisions. The study contributes to conversations about how digital tools may require us to redefine, rather than abandon, core artistic competencies.

Scope and Limitations

This study is intentionally narrow in scope, and its findings should be read accordingly. It centres on visual research in drawing-based practices rather than the full range of artistic media, with a focus on how AI image generators affect process and inform the production of finished work through embodied practice rather than replacing that practice. The classroom research was conducted within a single upper-level course at one college, with a small number of participants, over a limited period; it is therefore a situated account rather than a generalizable survey. My proximity to the context through my dual role as instructor and researcher enabled a deep, embodied understanding of studio dynamics, but it also introduced the possibility of bias in how participants responded and how processes unfolded. The GenAI systems discussed here also belong to a rapidly changing technological landscape, so specific capabilities described in this thesis may date quickly even if the underlying issues remain. Finally, because this is an autoethnographic and a/r/tographic project, the work foregrounds depth, reflexivity, and lived experience over breadth and statistical generalization. A/r/tography also allowed the inquiry to remain responsive to emergent patterns in the creative process, which was both a strength and a

limitation as it made room for unexpected insights, but it also required careful transparency about how interpretations were formed in this specific educational setting.

Thesis Structure

This thesis is organized into eight chapters. Chapter 1 introduces the research context, significance, key terms, researcher positionality, research questions and objectives, interdisciplinary approach, scope and limitations, and overall structure. Chapter 2 presents the theoretical and conceptual framework, drawing on a/r/tography, Constructivist Learning Theory, entanglement art education, visual research methods, and art history. Chapter 3 outlines the methodology and research design, including the two-stage a/r/tographic inquiry and the autoethnographic and classroom-based components. Chapter 4 presents the literature review across Visual Arts, Education, and Art History. Chapter 5 shares the findings from Stage 1, focusing on the autoethnographic inquiry into my own drawing practice. Chapter 6 presents the findings from Stage 2, the classroom research with post-secondary drawing students. Chapter 7 synthesizes the findings from both stages and discusses broader implications for visual arts education, student agency, ethics, and the role of AI in creative practice. Chapter 8 concludes by summarizing the thesis's main contributions and suggesting directions for further research.

Chapter 2: Theoretical and Conceptual Framework

Since this research sits at the intersection of studio art practice, art education, and a rapidly changing technological landscape, it draws on several frameworks to account for how artificial intelligence image generators shaped drawing processes in both the classroom and the studio. It begins by distinguishing *visual research* from *visual research methods* in order to differentiate the image sources that informed participants' work from the research techniques used to answer the study's questions, and to locate AI-generated outputs within the longer history of how artists gather and process visual reference. It then turns to *a/r/tography*, the arts-based research methodology that holds together the overlapping roles of artist, researcher, and teacher, and that provides the methodological language through which encounters with GenAI systems are interpreted. *Constructivist Learning Theory* grounds the pedagogical commitments of the study by framing learning as an active, experiential process of meaning-making rather than passive reception. *Entanglement Art Education*, together with the posthumanist and new materialist theory on which it draws, offers a lens for understanding how AI systems, along with paper, graphite, and pastel, shape the conditions of making rather than functioning as neutral instruments. These frameworks support the study's central orientation. This is not research that measures the effectiveness of AI in a narrow sense. It is research that traces the dialogues and negotiations that occur when AI enters drawing practice, including those between students and their values, between efficiency and depth, between teacher expectations and institutional pressures, and between human decisions and the nonhuman conditions that influence them. The chapter closes by defining generative AI and AI image generators, clarifying the terminology used throughout the thesis, and situating the choice of Adobe Firefly within the ethical and conceptual concerns these frameworks raise.

Visual Research

In this study, *visual research* is understood as the ways artists gather and process visual information to inform their work. Drawing on experience as a practising artist and visual arts educator, the following list identifies traditional visual research sources often used by artists seeking representational outcomes in their practices: observational, photographic, existing artworks, and memory or imagination. Table 1 provides further descriptions and examples of these sources. In recent years, digital systems have expanded photographic research by allowing artists

to collect, tag, and re-sequence visual material across many contexts. Visual research can be used to plan, problem-solve, map, collect, track, abstract, simplify, restructure, combine, layer, juxtapose, document, and reveal relationships and perceptions. For artists working in a range of media, visual research often includes, or is accompanied by, rough or unfinished drawing as external sources are translated into embodied mark-making. Although finished artworks can emerge through many different approaches, the exploratory stage of note-taking, recording memories or imagined scenarios, gathering references, sketching, and testing concepts is often integral to artistic practice and remains distinct from final production. This stage contributes to *ideation*, understood here as a process that assists with problem definition and idea selection by generating and filtering concepts, or by opening and narrowing options, often across multiple work sessions. This thesis examines AI-generated outputs as possible reference artifacts and considers how they might appear to overlap with the categories of photographs, existing artworks, and memory or imagination, while also remaining distinct from them in provenance, scale, and method of production.

Table 1

Sources of visual reference used in contemporary visual arts practices

Source of Visual Reference	Description	Examples
Observational	Drawing or studying directly from life, using the body as an active seeing and marking tool.	Still life setups, live model or figure drawing, landscapes, interiors, architecture, assemblages of objects.
Photographic	Using existing or self-taken photographs as primary visual material.	Personal or family photo archives; studio, documentary, or candid snapshots; found, exhibited, or published images; online image platforms including Google Images, museum databases, Pinterest boards, social media feeds, digital archives, and stock image websites; curated image collections; collaging images from comics, fashion, industrial design, architecture, film stills, scientific diagrams.
Existing Artworks or Exemplars	Studying and copying existing artworks or preparatory sketches to understand visual languages and problem-solving.	Original paintings, prints, and sculptures in museums or galleries; reproductions in art books, journals, exhibition catalogues, or online collections; studying preparatory sketches versus finished works.
Memory / Imagination	Drawing from internal images, remembered experiences, emotions, and invented scenes.	Dream imagery, memory sketches of childhood places, invented figures or environments, narrative vignettes, visualized symbols or metaphors, re-combinations of observed motifs filtered through the imagination.

The study also draws on scholarly understandings of *visual research methods*, defined as "research techniques that use visual elements such as photographs, maps, video and other artistic media—drawings, paintings and sculptures—in the process of answering research questions" (Hartel & Thomson, 2011). This definition emphasizes that visual references are not secondary supports but primary sites of inquiry, interpretation, and meaning-making in artistic research. For the purposes of this study, the studio-based practices are understood as visual research methods and are integrated into the arts-based inquiry. These practices are documented through sketches, images, writing, critical reflections, and artworks in process work books so that visual material functions not only as source material for artmaking but also as primary data for the project's analytic and methodological approach.

A/r/tography

The arts-based research methodology of *a/r/tography* was chosen to situate my overlapping and emerging experiences as artist, researcher, and teacher within a study that combines autoethnographic and classroom research. As articulated in *A/r/tography: Rendering Self Through Arts-Based Living Inquiry* (Irwin & De Cosson, 2004), a/r/tography allows for an emergent approach in which drawing, teaching, and writing become entangled sites of inquiry through which encounters with GenAI systems can be examined. A/r/tography emphasizes "living inquiry" and relational aesthetics in which knowledge emerges from the ongoing interplay of bodies, tools, concepts, and contexts. This orientation is especially useful for the present study because the 'tool' under examination is opaque in its operations, subject to continual updates, and already embedded within broader infrastructures of data extraction and platform capitalism.

In *A/r/tography as Living Inquiry Through Art and Text* (2005), Springgay, Irwin, and Kind present a/r/tography not as an extension of qualitative methods but as a distinct methodology concerned with continuous, embodied meaning-making across the roles of artist, researcher, and teacher. They conceptualize a/r/tography through six "renderings"—contiguity, living inquiry, openings, metaphor/metonymy, reverberations, and excess—which describe how research enacted through art and text produces knowledge beyond traditional criteria and remains attentive to the sensual, tactile, and unsaid dimensions of lived practice. The methodology calls on researchers to embrace process over product and to engage deeply with the tensions and richness of interdisciplinary arts inquiry. The methodology foregrounds the contiguous, fluid coexistence of

the roles of artist, researcher, and teacher, highlighting the spaces in between these identities as productive sites of inquiry. The interdisciplinarity of these interconnected roles explores the rupture that arises from a "without"—a space where traditional disciplines dissolve—creating conditions for new ways of knowing and being in research.

As Springgay, Irwin and Kind (2005) suggest:

> Rather than recognizing interdisciplinary work as a bricolage of existing paradigms, disciplines, and methodologies, interdisciplinarity needs to focus on the “unnamed something”—the “without” (Rogoff, 2000). Through close attention to the un/said and un/known, a new field of study, a/r/tography, might constitute itself. This condition of without is paramount in understanding and shaping aesthetic inquiry, where encounters within the visual and textual are imbued with dis/comfort and struggle that allow one to conceive of possibilities unthought of before. (p. 909)

The initial intention of this a/r/tographic study was to dwell in emerging encounters with GenAI technology as both artist and arts educator, alongside the encounters of students, in order to explore what kinds of possibilities image generators might appear to offer to visual research. Through visual experimentation, reflexive writing, and critical dialogue, the study traces how meaning was made, challenged, and reshaped within those encounters. In this sense, the research was less concerned with fixed outcomes than with following the tensions and shifts that emerged when artistic intuition entered into relation with a new technological system.

A/r/tography also informed the methodological language of the study, especially through the rendering of *openings*. Springgay, Irwin, and Kind (2005) describe openings as follows:

> [O]penings are not passive holes through which one passes easily or that allow one to see through with distinct clarity. These openings are cuts, cracks, slits, and tears; refusing comfort, predictability, and safety—deliberately seeking out “the difficult, the unknown, the ambiguous, [and] the unpredictable” (Sumara, 1999, p. 42). (p. 905)

Throughout the study, attention was given to *openings* and *narrowings* that appeared in the process of working with AI image generators and drawing materials, particularly in the ways those encounters invited, redirected, constrained, or withheld exploration in visual research, ideation, and embodied art practice. This language was useful because it made room to account for what systems and materials seemed to make possible within the process without overstating their autonomy or diminishing the role of human judgment and decision-making. Further explanation of

this methodological approach is included in Chapter 3.

Constructivist Learning Theory

The transactional methods of Constructivist Learning Theory provide the pedagogical and methodological orientation for this research, although the three teaching orientations identified in *Curriculum: Perspectives and Practice* (Miller & Seller, 1985)—transmission, transaction, and transformation—are better understood as overlapping tendencies than as mutually exclusive categories. Transactionalism is a philosophical stance that rejects modern dualisms such as subject and object, mind and matter, and organism and environment. In Dewey's (1916) writing, which informs the philosophical grounding of transactionalism, transaction and transformation remain closely connected, and inquiry is understood as social, democratic, and open-ended. Rather than treating knower and known as ontologically separate, Dewey locates knowledge construction in the ongoing transaction between organism and environment, where meaning and perception emerge through coordinated activity rather than existing independently in advance of that activity (Vanderstraeten, 2003; Dewey, 1916). Later constructivist pedagogy retained much of Dewey's emphasis on learner-environment interaction and active meaning-making as it became institutionalized in formal schooling, but it often narrowed his broader democratic and communal vision by focusing more heavily on individual cognitive development than on collective social transformation (Vanderstraeten, 2003). This study attempts to hold on to both dimensions by treating learning as active co-inquiry while remaining attentive to the wider stakes of how students and teachers encounter a new technology and respond through drawing materials together. This transactional emphasis also helps explain why the thesis finds some resonance with later relational accounts of making and knowing, even while those frameworks are not identical.

For Dewey, experiences become educative when they meet two conditions. The first is continuity, meaning that an experience grows from prior experience and shapes those that follow. The second is interaction, which refers to the transaction between the learner and the full conditions of the situation, including materials, systems, peers, exemplars, constraints, and unresolved questions. Experience in this sense is not mere exposure, observation, or social exchange. It is an ongoing, responsive engagement with uncertainty. This distinction matters for the thesis because it positions participants as actively negotiating encounters with AI image

generators and drawing materials rather than simply receiving information from them (Vanderstraeten, 2003; Dewey, 1916).

In *From Transmission to Transaction: John Dewey's Imaginative Vision of Teaching* (2018), Deron Boyles presents Dewey's view of authentic learning and good teaching as an expanding form of inquiry, emphasizing interaction, dialogue, and shared meaning-making between teacher, learner, and subject matter. Tim Ingold extends this line of thought through the concept of correspondence, a going-along-together in which learner, materials, and conditions are mutually modified. Teaching, then, becomes a matter of structuring genuine encounters by opening situations in which students and teachers can attend, respond, and find their way through authentic practice rather than simply receive fixed content. This orientation was important to the study because it did not seek to impose a predetermined view of AI image generators on participants. Instead, it asked how they encountered, experimented with, questioned, and resisted these systems within creative processes.

The study used Constructivist Learning Theory to create opportunities for learners to make meaning and construct knowledge through active, hands-on engagement with technologies and materials, accompanied by critical reflection. It also informed assessments that emphasized process, experimentation, and reflection on implications and limitations rather than polished outputs alone. Participants were asked to engage critically with AI image generators as one possible option within visual research and to reflect on their own decisions, discomforts, and discoveries as they worked toward responses through embodied drawing practices, where iterative making, revising, and reflecting remain central ways of knowing. The findings discussed in later chapters show how this open-ended process produced a range of responses shaped by participants' situated encounters with the technology.

Entanglement Art Education

The research situates AI image generators within evolving scholarship in art education by examining their impact on creativity, authorship, and ethical teaching practice. Nicholas Leonard's concept of *Entanglement Art Education* (EAE) argues that art curricula should explicitly recognize the role of nonhuman forces, including AI and other technologies, in shaping creative work rather than treating them as neutral instruments. Drawing on posthumanist and new materialist theory, Leonard proposes that teachers design learning environments in which students are encouraged to

notice how AI systems, materials, environments, and humans shape outcomes together (Leonard, 2020).

Leonard (2020) examines digital technology and AI art practices in order to question conventional assumptions about creativity and authorship, outlining a new materialist framework for digital art education in which technology can provoke and constrain inquiry rather than merely increase efficiency. His proposal emphasizes posthuman intra-actions that are not human-centred and acknowledges that people are always influencing, and being influenced by, the worlds in which they work. Recognizing machines and other nonhumans such as pencils, paper, and light within curricula can support richer discussions of the many factors that shape digital and analogue artmaking practices, including AI. Leonard also notes that posthuman perspectives may be unfamiliar to students and therefore require careful explanation in educational settings.

Posthumanism

The posthumanist and new materialist theories that inform EAE are worth addressing directly because they contribute important concepts throughout this thesis. *Posthumanism* rejects the anthropocentric assumption that the human is the sole or privileged agent who uses, controls, and exploits other entities, or who creates art as an entirely autonomous subject. Instead, it understands the human as one participant among many in the ongoing production of the world and, as Braidotti (2013) writes, helps make sense of flexible and multiple identities. Karen Barad's (2007) *agential realism* supplies much of the vocabulary on which EAE relies. Where conventional accounts speak of *interaction* between pre-existing and independent entities, Barad proposes *intra-action*, in which agency is not a property possessed by a person or a thing but something enacted relationally. In that view, the components of an encounter acquire their boundaries and properties through the encounter itself.

This concept is useful to the thesis up to a point, particularly in explaining how making is shaped by relations among artist, system, and material conditions rather than emerging from isolated intention alone. At the same time, the language of distributed agency needs to be used carefully. If it is applied too loosely, it can obscure the human labour, institutional design, and corporate decision-making that structure these systems long before a user encounters them. The responses of image generators are not spontaneous expressions of machine autonomy. They are conditioned by the intentions of developers, the labour of data workers, the design of interfaces, the structure of training datasets, and the broader economic systems that sustain them. For that

reason, this thesis draws on posthumanism as a way of recognizing relational influence without using it to flatten important distinctions in responsibility, authorship, labour, or control.

This framework nonetheless reshapes how encounters with AI image generators are read within the study. It is easy to lean on humanist ideals of creativity, agency, and autonomy and to describe only how the artist directs the system while overlooking how the system's outputs, constraints, refusals, and repetitions can redirect the artist in turn. Following an opening therefore also involves a narrowing. Each path suggested by a generator closes off others. The point is not to imagine escape from that dynamic but to account for it carefully. In each assignment, attention was given not only to how openings invited exploration but also to how the system's logics, including repetition, refusal, and bias, pressed back on intention. These moments are treated as part of the opening and narrowing dynamic rather than as neutral technical noise.

New materialism also extends beyond the screen. The movement from screen to page is not a neutral transfer but another site of encounter. As the process shifts from pixels to paper, the material conditions of drawing—surface tooth, scale, orientation, the drag of graphite or pastel, the pressure of the hand—modulate and sometimes resist directions suggested by AI-generated images. In that sense, paper and drawing materials can be understood as shaping what becomes possible within analogue practice. Attending to these material conditions also means moving beyond the visual alone and considering how drawing involves listening and feeling as well as seeing, whether in noticing when a pencil edge needs sharpening or in sensing the friction of a tool against a surface. This emphasis helps make the full sensory field of making more accountable within the research (Leonard, 2020; Barad, 2007).

Posthumanist and new materialist frameworks are useful in this thesis because they help describe how creative work is shaped through relations among artists, systems, materials, and environments rather than emerging from isolated intention alone. At the same time, the language of distributed agency can obscure the human labour, design decisions, and institutional structures that shape generative AI systems long before a user encounters them. What appears at the surface level as the influence of "the system" is also conditioned by the work of engineers, interface designers, corporate actors, data workers, and the creators whose images have been gathered into training datasets, often without meaningful consent. This distinction matters because generative AI systems are not autonomous creative subjects. Their outputs are shaped by prior human decisions embedded in datasets, model design, safety filters, interface structures, and commercial priorities, even if those layers become difficult to see once the user encounters the system through

prompting and output. Posthumanist theory helps make those entanglements visible, but it should not be used to obscure the exploitative conditions on which many of these systems depend.

This study also distinguishes three related terms that are often collapsed in discussions of AI and art. *Authorship* refers to who is acting as the artist, who claims to have authority over the final decisions, and who accounts for the outcome. *Ownership* refers to who holds legal or proprietary rights in a work. *Agency* refers to who or what is acting within and influencing the creative process. These are related but not interchangeable categories. In this thesis, participants' drawings are treated as human-authored works under the terms granted to other drawings completed using embodied practices and physical materials. However, the thesis addresses the extent that GenAI conditions agency and challenges more traditional notions of ownership.

Generative AI and Image Generators

Central to this thesis is the involvement of AI image generators. Detailed technical expertise is not required for the purposes of the study, but a general understanding of how these systems emerged, how they were developed, and how they function provides important context. The study asks not only how students use AI image generators, but also how they make sense of, resist, and position themselves in relation to systems whose operations are largely opaque to their users.

Artificial intelligence is a broad and often misleading label that groups together many different computational systems under a single heading. Following Poole, Mackworth, and Goebel (1998), AI can be described more precisely as the study and design of computational systems that perform tasks requiring forms of perception, pattern recognition, search, or decision-making when carried out by humans. At the same time, that phrasing should not be taken to mean that these systems think, understand, or emulate human cognition in any straightforward sense. As critics such as Emily Bender and Nanna Inie have argued, anthropomorphizing language around AI can obscure the statistical, engineered, and labour-intensive character of these systems while encouraging inflated claims about machine intelligence (Bender & Inie, 2026). For that reason, this thesis avoids language that implies sentience, intention, or humanlike cognition where such claims are not warranted.

From early developments associated with Alan Turing's conception of a universal computing machine in the 1930s, the field has moved into a "big data" era in which large-scale computational capacity allows systems to process vast quantities of information. AI models are

often divided into *discriminative* models, which classify or label patterns, and *generative* models, which produce new outputs that statistically correspond to patterns in their training data, including text, audio, or images (Sims, 2024). In deep learning, layered computational architectures known as *neural networks* loosely inspired by neural structures in the human brain—comparisons that should be treated cautiously—discern complex patterns and rules within vast quantities of data. Brain-based metaphors reflect historical conventions rather than evidence that these systems function like human minds (Bender & Inie, 2026). *AI image generators* are a class of generative model in which users input a text prompt and receive an image output. Trained on large datasets of images and associated text descriptions, or *metadata*, these systems generate outputs by identifying and recombining statistical relationships in visual and linguistic data rather than by understanding images as humans do.

Generative models have been used in statistics for decades, but the lineage of contemporary image generators often traces back to the 2014 development of *generative adversarial networks* (GANs) by Ian Goodfellow and colleagues. GANs generate images through an adversarial relation between a generator and a discriminator, gradually refining outputs until they resemble training examples (Goodfellow et al., 2014). These models can be difficult to train stably and are prone to model collapse, in which output variety becomes limited. Recent *diffusion* models take the opposite approach, learning to recover an image by iteratively 'denoising' from pure, static randomness (Ho et al., 2020). Rather than a competitive dynamic, diffusion model image generation involves a process of systematically degrading images, or 'noising', and then reversing the noise-addition process through many small, corrective steps that predict and subtract noise, producing greater sample diversity, higher-quality images, and more stable training (Ho et al., 2020). *Latent diffusion* models refined this further by operating in a compressed representational space rather than directly on raw pixel data, reducing computational costs while preserving output quality; this approach forms the basis for current, powerful image generators to run on consumer grade hardware (Rombach et al., 2022).

AI image generation relies on the predictive assembly of images at the pixel level. This process relies on the analysis of vast numbers of image-text pairs processed through model 'neural networks' architectures trained to associate visual features such as shapes, colour relationships, and compositional tendencies with words and phrases. Those associations are then recombined in response to prompts to produce new image outputs. Larger datasets can increase the range and apparent coherence of such outputs, but scale is also central to the ethical problem. Much of the

training data used for contemporary systems has been assembled through datasets created by organizations such as LAION and Common Crawl, whose large-scale image-text collections underpin many corporate systems. LAION-5B, released in 2022, contains billions of text-image pairs gathered from publicly accessible web material. This fact is significant because GenAI outputs cannot be treated as equivalent to photographs, observation, or memory-based imagery simply because they may appear reference-like at the surface. Their provenance is fundamentally different as they are derived from industrial-scale extraction, model training, and probabilistic recombination, often involving the unconsented inclusion of living artists' work and the hidden labour of those who build, label, filter, and maintain the systems. The concept of 'creative commons' that underpins some fair use practices does not apply to these corporate systems whose models also enable the production of art-like outputs at scale that compete with human artists in the marketplace and allow others to profit from their art (Longpre et al., 2024; Lovato et al., 2024). This thesis therefore attends to the ways GenAI intensifies longstanding questions of authorship and power in art while also introducing unprecedented problems of scale, opacity, and displacement.

House Style and Hallucination

Each AI image generator model carries different biases, output styles, and user controls. Every image generation system has what might be called a *house style*, a characteristic default aesthetic shaped by its training data, model design, and interface constraints. These model-specific tendencies may appeal differently to users and can also shift between software versions. Rather than smoothing over the visual artifacts of early generative models, the filmmaker Bennett Miller actively embraced the "glitches and relative crudeness" of DALL-E 2's and its tendency towards hallucinatory and surreal outputs for the liminal, dreamlike quality of his AI-generated photo series. He relied so heavily on the specific qualities of DALL-E 2 that he was unable to reproduce the same results using the later DALL-E 3 model (Gagosian, 2025).

To work against a default house style, users often write detailed prompts that specify medium, lighting, colour, stylistic references, or model settings. When asked to produce unusual or uncommon content, image generators may instead return lower-quality outputs with coherence problems or substitute more familiar and stereotypical alternatives. That tendency reflects the fact that these models are trained on statistical regularities and often reproduce dominant visual patterns more effectively than highly specific or unusual ones. Consequently, publicly-available

image generators struggle to replicate or extend personal styles and generate distorted, unwanted results when user's prompt requests meet gaps in its training data. This reveals a key limitation in which style and subject are intertwined within these models. Rather than extracting pure style, the inability of image generator models to cleanly separate style from content provides insight for reconsidering traditional art-theoretical assumptions about the relationship between style, subject, and creativity (Manovich & Arielli, 2025). It also raises important questions about copyright, dehistoricization, and the reduction of artistic practice to recombinable surface effects.

A related issue is the phenomenon often described as *hallucination*, in which image generators produce inaccurate, unexpected, distorted, or surreal details not specified in the prompt. The term is widely used, but it can also anthropomorphize system behavior by implying a mental event where none exists (Bender & Inie, 2026). Lev Manovich's notion of achieving "controlled misunderstanding" (Manovich, 2024, p. 124) is apt as it names the balance between getting what you need from a generator and leaving room for surprises, chance operations, or uncanny mutations. This study attends to how these unexpected results might make productive contributions to ideation in creative practices or remain counterproductive distortions.

Meanwhile, AI image generators have already been implicated in a range of harms that cannot be separated from their creative use. These systems have been used to produce deepfakes, non-consensual sexual imagery (including of minors), and hateful or extremist visual propaganda, amplifying harassment, racism, and gender-based violence (O'Brien, 2024). Politically, photorealistic synthetic images are increasingly used and stress-tested in disinformation and election interference which can inflame polarization and undermine public trust in democratic institutions (Kreps & Kriner, 2023). Epistemologically, the ubiquity of plausible but fabricated images erodes the default credibility of photographs as records of events, forcing viewers into an unstable oscillation between trust and generalized skepticism, thereby weakening the role of images as reliable sources of knowledge in what some commentators describe as an emerging "epistemic collapse" of the visual field (Dierickx, 2026). Any creative contributions that artists realize from AI-generated images towards creative practices should take into account the harmful results these systems are entangled in.

Why Adobe Firefly

Adobe Firefly was chosen for this study primarily because of its relative availability to students and Adobe's public claims about a more ethically constrained dataset. These advantages distinguish

the program from its competitors, though, as I discuss below, they are not without their own complications.

On the question of dataset ethics, Adobe has attempted to differentiate Firefly by stating that it was trained not on internet-scraped material gathered without consent but on images from the Adobe Stock library, along with openly licensed and public-domain content. Adobe Stock contributors receive some form of compensation, and Firefly applies content credentials indicating that images were generated with AI. This represents an attempt to address some of the consent and attribution issues that surround other systems, but it does not offer a clean ethical solution. Contributors who agreed to include their work in Adobe Stock did so before Firefly's development and did not necessarily consent to its use in training generative systems. Contributors have also reported that they were unable to opt out, and Adobe Stock itself has been found to contain AI-generated images, including ones created with other systems (Foley, 2024; Goldman, 2023). Firefly may therefore represent a less ethically compromised option rather than an ethically resolved one.

Availability was the other major factor. Firefly is accessible to many post-secondary art students through institutional Adobe Creative Cloud subscriptions, including at the college where participants in this study were enrolled. That availability matters during enrolment, but a different picture emerges after graduation, when subscription costs can become prohibitive for emerging artists and designers. Having used Adobe products for more than thirty years, I have only briefly had to pay that subscription cost myself, but I was conscious that the students in this study would eventually have to reckon with subscription costs themselves. For that reason, the study was designed to avoid championing Firefly as an ideal product and instead to use it as a case through which to discuss what a more ethical image generation system for the arts community might require.

The decision to focus on Firefly in a study concerned with artists' rights rested on its comparatively improved dataset ethics, its institutional availability to students, and its stated commitment to creator compensation. Closer examination, however, suggests that no fully ethical option was available at the time of the study. Firefly still relies on licensed material gathered under questionable consent conditions, and its cost structure limits access once institutional support ends. The research nonetheless proceeded in order to assess whether this technology could make any positive contribution to creative practice and to identify what changes would be necessary before image generator systems could be considered ethically defensible.

See Appendix 1 for AI Image Generators – Comparative Reference Chart (2026)

Chapter 3: Methodology and Research Design

This research was designed as a two-stage a/r/tographic inquiry that combined autoethnographic studio practice with mixed-methods classroom-based research to investigate how co-creative encounters with AI image generators might affect the creative and technical aspects of visual research for drawing-based practices. The design was deliberately iterative. Insights from my own practice with AI image generators informed the classroom inquiry, while classroom experiences fed back into my understanding of drawing, pedagogy, and the technology. Rather than separating making, teaching, and researching, a/r/tographic methodology maintains the relationality of these roles, allowing their intersections to become sites of inquiry. As outlined in earlier chapters, a/r/tography frames knowledge as embodied, relational, and emergent. In this study, that framing shaped how the research was designed, how data were generated and interpreted, and how the central research questions were pursued through responsiveness to what emerged rather than through hypothesis testing. Building directly on the theoretical and conceptual framework presented in Chapter 2, this chapter outlines the methodological approach of the thesis inquiry—including the two-stage research process, data sources, ethical considerations, analytic strategies, and criteria for trustworthiness and limitation—before turning, in Chapter 4, to the wider literature. In keeping with arts-based research conventions, methodology is treated here not as a generic procedural section but as part of the central spine of the project, closely tied to a/r/tography, Constructivist Learning Theory, and posthumanist perspectives on GenAI as a system entangled with labour, ethics, and pedagogy.

The study initially set out to examine how AI image generators might function alongside traditional drawing practices and art education. It focused on the potential role of this technology in visual research, including concept development, reference images, and compositional experimentation that led to hand-made drawings using analogue materials, as well as its possible impact on authorship, skill development, and critical engagement. The research also attended to the factors beyond the AI system, such as physical materials and environments, shape the creative process. Participants, including myself, generated AI images, documented processes, and reflected on their experiences, with pre- and post-project surveys used to support the student component of the study. The aim was to identify benefits, limitations, and risks, and to develop guidelines for responsible integration. As the project unfolded, however, strong student resistance to GenAI became a central finding. The inquiry shifted toward understanding those choices as

forms of critical engagement, care for craft, and technological literacy, and toward considering how art education might hold space for both engagement with and refusal of AI systems. This shift reflects a/r/tography's commitment to living inquiry, in which the research design remains open to what emerges.

Methodology

This study approaches methodology through a/r/tography by attending to *openings*, or opportunities, and related *narrowings* that occur within artistic decision-making, creation, and the interactions between participants and the nonhuman conditions of creative processes. The term *openings* is used to align with the a/r/tographic concept of renderings which foregrounds how knowledge arises through process, relation, and encounter beyond conventional qualitative and quantitative criteria. At the same time, every decision to follow an opening also produces a narrowing; the selection of a detail, the pursuit of a prompt, or the commitment to a mark leaves alternative possibilities unexplored. Part of the methodology was therefore to account for those narrowings as they emerged through the decision to use the system and through the process of working with an already opaque technological system, so that the limits of both the system and my own practice became more visible.

Rather than evaluating GenAI systems as successful or unsuccessful in any straightforward sense, the study was designed to attend to the possibilities and constraints that co-exist in encounters with image generators and what the participants were using GenAI for, especially in relation to customization, ideation, and iteration. These were not treated as outcomes to be validated, but as conditions to be encountered, followed, redirected, or resisted.

First, the study considered whether AI-generated images might support artists by creating openings for customizable and distinctive reference material within visual research for drawing-based practices, while also addressing some of the limitations of existing photo databases and photographic practices. The research documented how AI image generators responded to requests tailored for, among other things, specific screen- and system-mediated locations, figurative poses, lighting conditions, and digital textures that may be difficult or impossible to access or photograph otherwise, including visual references for fantastical elements, undocumented moments, or imagined situations.

Second, the inquiry explored the potential for image generators to expand options for artists' concepts, details, and compositions from user-generated prompts during ideation stages of the creative process to see whether this technology might open possibilities for compositions that would not emerge through conventional research and development alone. This included considering whether such systems might help artists move through creative blocks or encounter unexpected visual juxtapositions. The value of the exchange may lie not only in the image produced but in the opening of unexpected possibilities that arise through the encounter itself.

Third, the inquiry examined how image generators might open possibilities for artists through the rapid production of visual reference materials and through the iteration of conceptual variations. Whereas the previous point examined the appearance of surprising or unplanned details that might influence conceptual or visual development, this aspect of the inquiry attended to how the technology might support iterative exchanges among intention, reference, response, revision, and refinement.

Throughout both stages of the research, these three aspects of visual research were examined for both openings and narrowings within process work in support of drawing-based outcomes. Participants were required to work only with conventional analogue drawing supplies through embodied action. Digital drawing devices were not used for the final outcomes. The intention was to recentre the focus of the practice within the artist's embodied engagement with drawing materials. At the same time, the study also attended to the ways encounters with materials and environments shaped what became possible within the process.

I traced not only how openings and narrowings arose but how they *invited, redirected, constrained,* or *withheld* exploration. Openings that invited exploration drew me toward new questions, compositional possibilities, or approaches to drawing, often emerging from an unexpected detail in an AI-generated image or from a material response on the page. Openings that redirected the work turned me away from my initial intentions, as when repetitive AI outputs, or my struggle to blend pastels on the paper surface, steered my attention elsewhere. At other times, the encounter constrained the inquiry, funnelling it into narrow or predictable paths through cliché outputs, safety filters, stylistic defaults, or my own habitual responses to particular tools. Finally, there were moments in which the system or the materials seemed to withhold possibility and no opening became perceptible. In these instances, I noted whether the process remained in familiar territory and what that absence revealed about the limits of the technology and of my practice.

Detailed reflections on these openings and narrowings, together with my experiences of using image generators in each assignment, are presented in Chapter 5.

Building on the posthumanist account of relational and distributed agency outlined in Chapter 2, this study treats creative decisions as emerging through encounters among the artist, AI image generators, analogue materials, and the environments in which the work takes place. In methodological terms, this meant attending not only to what I or the student participants intended, but also to how prompts, outputs, interfaces, paper, graphite, pastel, and other conditions redirected, constrained, or intensified what became possible within the process. The point was not to attribute equal autonomy to each element, but to trace how influence was conditioned through encounter and how those influences shaped artistic decision-making.

Within this study, that analytic attention was especially important in relation to openings and narrowings. When an AI-generated output repeated a cliché, imposed a stylistic default, or produced an unexpected detail, I treated that not simply as a neutral technical event but as part of the conditions through which the inquiry was being shaped. Likewise, when analogue materials resisted intention through texture, drag, pressure, or other embodied constraints, those responses were treated as part of the same relational field. This methodological framing supported a more precise reading of process work, reflective writing, and classroom observations by tracing where possibilities appeared, where they narrowed, and how participants responded to those shifts.

Research Design

Stage 1: Autoethnographic Research

In the summer of 2025, I undertook a cycle of making, reflecting, and writing around the use of AI image generators in my own drawing practice in order to gain a first-hand understanding of these systems: how they are built, how they work, and how they might affect my creative processes. I worked primarily with Adobe Firefly, for reasons elaborated on in Chapter 2, while also experimenting with other systems for comparison. This autoethnographic stage was structured around two creative cycles across a series of three drawing assignments. The first cycle did not include image generators in the process work, and each project began with brainstorming notes and rough sketches to record my intentions, followed by visual research for images to serve as references for a final drawing. In the second cycle, notes from personal narratives in the initial cycle's brainstorming process were used to craft prompts for generating reference images in

Adobe Firefly as a replacement for conventional visual research *(see Chapter 5 for detailed explanations and results)*. The overlapping and repetitive nature of the creative cycles was an intentional aspect of the research design as I established methods for comparing creative processes with and without the use of GenAI.

Throughout the autoethnographic study, I maintained a process book to archive intentions, prompts, reference images, sketches, finished drawings, and written reflections. This archive served as primary data that documented not only what the system can do but also my interactions with the capabilities, limitations, and biases of the image generators as well as with other material and environmental contributors. These projects and records of conceptual development proved particularly useful for documenting the co-creative negotiations that occurred between human and non-human agents and aligned with a/r/tography's orientation toward charting the experiences and perspectives that emerge within processes of creating and learning. Findings and analysis from my autoethnographic interactions are presented in Chapter 5.

Stage 2: Classroom-Based Research

I incorporated insights from Stage 1 into the curriculum of DRAW 5310 Drawing V (Explorative) — a course that I taught at Durham College in the fall of 2025. This third-year course in the Fine Arts program challenged students to explore a range of traditional and unconventional drawing media using varied reference sources to produce sketches and artworks for three self-directed projects. The classroom-based research focused only on the final project in which students were given the option to use AI image generators for visual research and ideation—but they were not required to do so. This design choice of deliberately making AI optional rather than mandatory allowed resistance to emerge as data rather than as non-compliance.

Participants were recruited from the 24 students enrolled in this course — a required course within the program. Students in this class had already completed foundational visual arts courses including both traditional physical materials and digital systems, so the goal was not to replace basic skill-building with AI but to explore how AI might intersect with more conceptually informed, upper-year work.

Participant Positionality and Context

This study recognizes the positionality of its student-participants as learners enrolled in a college Fine Art program. The college is a relatively small institution whose Fine Art program draws largely

from the surrounding local population and does not require a portfolio for admission or impose enrolment limits. Although participants' individual circumstances, digital literacy, and comfort with digital tools varied, their enrolment provided institutional access to relevant software, hardware, and instructional support. Their location within a Fine Art program, rather than an applied arts or design program, also shaped the perspectives and professional concerns they brought to questions of GenAI, particularly around authorship, creative labour, and artistic identity. Finally, participant responses occurred within a broader public and professional context in which GenAI was the subject of intense media attention and sustained critique in arts communities. These contexts may have informed the concerns participants brought to the study, but they do not reduce their responses to predisposed "anti-AI" sentiment; rather, the study treats their ethical, affective, and practical positions as situated forms of critical judgment.

Data Sources

Data collection in Stage 2 comprised three instruments:

1. Pre-Survey: A hard-copy survey, completed by hand, gathered baseline data on students' prior experience with and perceptions of AI systems along with their familiarity, attitudes, concerns, and expectations. Surveys were anonymized with a code so that each could later be matched to the same participant's post-survey. Although participants could potentially be identified through details in their responses, only the researcher had access to these details, and no identifying details were to appear in the thesis unless consent was given on the consent form. A third-party administrator conducted the survey during the first scheduled class of the final unit and retained the completed surveys until after final grades were submitted. Estimated completion time was 15–20 minutes.
2. Classroom Research: Students were permitted, but not required, to use AI image generators for visual research. Process documentation was required of all students, while research participants were additionally asked to share specific interactions with AI image generators by recording prompts, responses to AI-generated material, and reflections on perceived benefits and limitations of the system within their process. No additional time was required of the participants as this work was conducted during regularly scheduled classes and within the existing project requirements. Student work was assessed during the course according to the course learning outcomes; the AI outputs, artwork responses,

and process books of participants who consented to inclusion were analyzed for the purposes of this study only after grades were submitted.

3. Post-Survey: A second survey provided an opportunity to assess students' experiences with the assignment and any changes in their perceptions of AI image generators, where applicable. The survey also intended to capture any shifts in attitudes or concerns about the technology resulting from participation in the AI-integrated drawing assignments. As with the pre-survey, responses were anonymized with a matching code and identifying details were excluded from the thesis unless consented permission was given. A third-party administrator conducted the survey during the last scheduled class of the final unit and retained the completed surveys until after final grades were submitted. Estimated completion time was 15–20 minutes.

Additionally, as part of the classroom research, I collected anonymized field notes and informal classroom anecdotes: conversations during class discussions and critiques, spontaneous comments about AI, and observations of how students chose non-AI methods even when AI was available. The design emphasized student agency and transparency in the process of working with GenAI by having students start from personal motivations, responding through embodied drawing responses to visual references, writing about intentions and processes, and reflecting on the co-creative aspects of working with technology and materials. Participation in the research was voluntary, and grades did not depend on using or not using AI. I was explicit about my own position and about my reasons for recommending Firefly over other systems, but students were free to choose any AI image generator. I made clear that non-AI visual-research methods were fully legitimate and valued. Participants were told that their experiences and insights could help inform the potential integration of AI image generators into visual-arts education and contribute to a fuller understanding of how artists can critically and creatively engage with technology. See Surveys and Consent Forms in Appendix.

Ethics

This research received ethics review and approval from the Human Participants Review Sub-Committee of York University's Research Ethics Board and conforms to the standards of the Canadian Tri-Council Policy Statement on the ethical conduct of research involving humans. The

project was also reviewed and approved by the Durham College Research Ethics Board. The required approval forms are included in the Appendix along with the completed and signed TD1 and TD2 forms, the TCPS 2 CORE certificate of completion, and samples of the consent forms and surveys.

As the lead faculty member and researcher, my dual role of instructor and investigator created a potential conflict of interest since students might perceive pressure to participate or to modify their responses to align with perceived expectations. The following measures were put in place to mitigate this risk:

- Voluntary participation: Students were explicitly informed, through both consent forms and verbal reminders, that participation or withdrawal would have no impact on their grades.
- Third-party survey administration and consent management: An independent administrator conducted the surveys and managed consent, keeping responses separate from the instructor until after final grades were submitted to the college. The administrator maintained a list of participants names that correlated to the encoded participants numbers for the pre-research and post-research surveys.
- Delayed data access: The researcher/instructor did not view participant surveys, reflections, or feedback until after course completion, preventing bias in academic evaluation.
- Transparency: Participants received written and verbal explanations of the conflict-mitigation measures, fostering trust in the process.
- Ethics board oversight: The institutional REBs reviewed all procedures, including safeguards against power imbalances.

Image Generators in the Study

Chapter 2 established how AI image generators function technically, how they were developed, and why I focused on Adobe Firefly over other options. What follows here are the methodological considerations of how Firefly's specific limitations bear on the design and interpretation of this study. I treated Firefly not as a neutral system or a fully resolved example of consent-based AI, but as a relatively constrained, institutionally sanctioned option within a broader and ethically fraught GenAI landscape, and an optional research pathway rather than a requirement in the visual research ecology. This positioning has direct methodological implications. First, it shapes how outputs are read: the system's stylistic defaults, its licensed-data constraints, and its safety filters are understood as conditions that actively narrow and redirect the inquiry. Second, it bounds the

transferability of the findings as results obtained with Firefly should not be assumed to generalize to AI image generator models trained on other datasets or governed by different algorithmic systems. Naming Firefly's particular limitations was thus not a disclaimer appended to the study, but a constitutive part of how the co-creative encounter was analyzed.

Firefly was available to participants through institutionally provided Adobe Creative Cloud subscriptions, accessed either on personal devices or in college computer labs. In practical terms, its interface is relatively user-friendly and tightly integrated with the broader Adobe Creative Suite, particularly Photoshop, which participants and I used for more robust post-generation editing. The subscription's monthly allowance of 1,000 image generations per user proved more than sufficient for both my own exploratory work and the course-based activities, reducing scarcity pressures that might otherwise have constrained iterative experimentation.

Methodologically, Firefly's training data and evolving model architecture shaped the screen-mediated visual field in which inquiry could unfold. Earlier versions, trained on Adobe Stock and public-domain content, tended toward a clean, high-definition stock-photo aesthetic optimized for professional design and advertising workflows. This house style could be pushed in other directions through prompt formulation and style controls, but it remained a strong aesthetic influence. More recent model iterations, including Firefly Image 4, released during the study period, extended the system's capabilities, introducing increased photorealism, particularly in human portraiture and complex lighting conditions, as well as features such as Structure and Style Reference, which allowed users to upload a sketch or photo to guide composition, texture and style. In addition, Firefly's Generative Expand and Generative Fill functions enabled the model to extend or transform both inputted and outputted images while closely matching lighting, perspective, and surface qualities. Together, these developments shifted Firefly from a primarily stock-like generator toward a more flexible system for both initiating and elaborating images, and they informed how I interpreted participants' engagements and the aesthetic range of the reference image outputs at different points in the study. At the same time, none of these developments resolved the broader ethical concerns surrounding consent, labour, provenance, and displacement that remain central to the thesis.

Firefly's built-in prompt-logging also played a methodological role. Each session stored prompts and corresponding image outputs in user-organized folders, making iterative histories retrievable. In this project, that affordance supported a form of visual and textual tracking: I could revisit how prompts evolved over time, how participants adjusted wording in response to outputs,

and how particular stylistic or conceptual decisions emerged across iterations. This archival function was treated as a data source rather than a mere convenience, providing further insight into the human–AI interaction as a series of situated, negotiated encounters. Users were made aware that any images or text inputted into or generated from GenAI systems could contribute to future system development and may remain accessible to the company operating the system.

Prompting itself was approached as a methodological practice rather than a purely technical skill. To scaffold both my own experiments and students' work, I adopted a structured prompt design heuristic that specifies at least: (a) topic or subject matter, (b) tone or affective quality, and (c) relevant contextual information (such as setting, background). This aligned with emerging prompting guidelines that emphasize compositional specificity and contextual framing as key determinants of output quality, while leaving room for open-ended, exploratory prompting in early stages. Firefly offers a variety of filters and settings that can provide additional artistic and stylistic controls, including art historical genres, but these features were not explored within this study as the stylistic choices were to be made, as much as possible, by the human artist during the drawing phase. In the analysis, prompts were therefore read not simply as inputs but as situated textual artifacts that articulate learners' conceptual intentions, aesthetic references, and evolving understandings of what the model can and cannot do.

Trustworthiness and Rigour

As an arts-based, interpretive study, this research was evaluated through trustworthiness—credibility, dependability, confirmability, and transferability—rather than conventional measures of validity and reliability (Lincoln & Guba, 1985). These criteria were addressed through practices embedded across the research design. Credibility was supported through sustained, first-hand engagement in the autoethnographic stage and through the coordination of multiple data forms, including images, written reflections, surveys, and field notes. Dependability and confirmability were established through the research finding reports and process books which document prompts, outputs, decisions, and reflections. Reflexivity was central to this rigour rather than incidental to it. As artist, instructor, and researcher, I was implicated in every stage of the inquiry, and the study treated this proximity as both a resource and a risk. Reflective journaling, attention to distributed agency, and the deferral of analysis of student work until after final grading operated as safeguards that made this influence visible and accountable rather than attempting to remove it.

Transferability was addressed through detailed accounts of context, materials, and encounters. Rather than claiming generalizability, the study provides sufficient specificity for readers to determine what may be meaningfully carried into other settings.

Methodological Limitations

The limitations of this study followed from its design and defined the scope of its claims. As a combined autoethnographic and classroom-based inquiry, the findings emerged from my multifaceted role as artist/researcher/teacher, and from a single cohort within a specific institutional context. While this enabled a detailed, embodied account of practice, it also constrained the extent to which the findings can extend beyond similar educational environments. The study was conducted within the temporal and ethical constraints of an academic term, including restricted data access and delayed analysis to manage the instructor–researcher role. These conditions limited real-time interpretation and the duration over which changes in student attitudes and practices could be observed. The optional nature of the AI component, coupled with student resistance, reshaped the study's trajectory and dataset. While this shift generated significant insights, it also limited the extent to which conclusions can be drawn about sustained engagement with AI-assisted processes. Additionally, the focus on a particular AI image generator model (Adobe Firefly) meant that the findings were shaped by its particular affordances, constraints, and training-data framework, and should not be assumed to transfer across systems. Finally, the study's emergent a/r/tographic design, while essential to its responsiveness, introduced interpretive variability. The flexibility to follow what arose in practice enabled unanticipated findings, but it also means the claims should be read as situated interpretations formed within specific relational, material, and pedagogical conditions. In this sense, the study privileges depth and reflexivity over breadth and statistical generalization.

Chapter 4: Literature Review

This chapter reviews the scholarly conversations that inform my interdisciplinary inquiry into GenAI in contemporary drawing and art education. Following the theoretical and methodological framing established in Chapters 2 and 3, this review is positioned as part of that broader methodological scaffold rather than as a standalone precursor to it. Bringing together literature from visual arts, education, and art history allows me to situate my work as an artist-educator, clarify the classroom contexts in which the study unfolds, and read GenAI not as a neutral system of efficiency but as a contested technological condition that may shape, complicate, or constrain visual research in drawing-based practice.

In the visual arts literature, I examine how generative AI is being taken up within contemporary artistic practice and visual research, with particular attention to studio workflows, aesthetic values, debates around authorship, and the tensions artists navigate between experimentation and refusal. This section also helps identify a gap addressed directly by my study. While a growing number of artists generate images with AI systems, fewer accounts follow those images back through embodied, analogue drawing processes, which is the space my autoethnographic inquiry occupies.

In education, I turn to current debates on AI in art and design classrooms, including how educators integrate these systems into curricula, how they attempt to sustain student agency and critical engagement, and how benefits, risks, and institutional policy responses are being framed. This body of work clarifies the pedagogical conditions shaping my own teaching practice and supports my research questions about whether and how GenAI should be engaged in post-secondary visual arts education.

Finally, I draw on art historical scholarship on drawing pedagogy, earlier technological shifts in image-making, and the changing place of digital media in drawing practice. These precedents offer a longer view of how emerging technologies have reconfigured artistic methods, values, and teaching, while also making clear that GenAI should not be treated as merely another iteration of prior tools without accounting for its distinct provenance, scale, and ethical implications.

Together, these three strands of literature provide the scholarly context for the analysis that follows in Chapters 5 and 6, while also helping to situate this study's methodological and pedagogical concerns within a broader interdisciplinary field.

AI in Contemporary Visual Arts

Visual Research in the Digital Age

As discussed in Chapter 2, visual research is central to the ways artists gather and process visual information in support of artistic work. In the digital age, that research has expanded beyond observational study, photographic reference, copied exemplars, and memory- or imagination-based visualization into networked, data-rich, and multimodal digital practices. This shift is not simply a matter of increased access. It changes the conditions under which artists encounter images, references, and artworks. As the CLOUDART working group observes, the field is moving "from digitalization of contemporary art artworks towards the digitalization of a whole contemporary art digital user experience" (Barricelli et al., 2021, p. 6). Where traditional visual research often depends on physical encounters—standing before a work in a gallery, handling a print reproduction, or copying from a material source—Barricelli et al. (2021) argue that digital research produces a screen-mediated and remote encounter instead.

> To design for a new way of Contemporary Art digitalization at the service of new experience fruition means first of all to identify all difference between the live experience and the remote one. It means not just focusing on the missing aspects but also investigating all new potentials. Technology is never neutral because it always transforms our experience of reality: a new way of acting produces a new way of thinking, and the remote experience is a clear example of that. (Barricelli et al., 2021, p. 8)

This distinction is useful for situating the present study's attention to screen-mediated experience. Artists now routinely work with online image archives, social media feeds, museum databases, and other digital sources that allow them to study composition, reception, and visual form without physical proximity to the work (Barricelli et al., 2021; Yi Lunna, 2024). Barricelli et al. (2021) caution, however, against treating such systems merely as prosthetic extensions that compensate for the absence of physical access. Their argument instead foregrounds how technological mediation transforms the experience itself. This is relevant to my study, in which digitally sourced references, and increasingly AI-generated images, are not approached as simple substitutes for direct encounters. They are different kinds of encounters with their own affordances, constraints, and politics.

At the same time, GenAI should not be folded too easily into a generalized history of digital reference practices. While AI-generated outputs may appear, on the surface, to function like other forms of screen-based visual source material, their provenance is very different. They are produced through industrial-scale data extraction, opaque model training, and statistical recombination, often built on the uncompensated or contested use of existing images and on the labour of data workers, engineers, and platform infrastructures. For that reason, the shift to GenAI in visual research is not simply another increment in digital mediation. It introduces unprecedented questions of scale, labour, consent, displacement, and bias that exceed earlier technological shifts, even as it emerges within a longer history of technological impact on artistic practice.

Many artists are now using datasets and machine learning systems themselves as media within experimental visual research. Approached from different directions, these systems can become sites of inquiry into authorship, control, extraction, and aesthetic form (Critical Playground, 2025). Some artists treat machine learning datasets as raw cultural material for critique, using the defamiliarization of scraped imagery as an artistic-research method through which to expose the bias, extraction, and identity politics embedded in internet-sourced data (Grønneberg & Alacovska, 2022). These examples show that contemporary machine learning art practices are often framed not only as studio experimentation but also as reflexive inquiry into the political and technical conditions of the medium itself. That framing is important for this thesis because it keeps the focus on the systems and infrastructures shaping visual research, rather than accepting generative image production as a neutral expansion of artistic possibility.

Co-creation

Exploring Co-creative Drawing Workflows (Jansen & Sklar, 2021) provides an early empirical account of artists' receptivity to possible AI collaborations before the widespread public backlash that followed the release of more accessible generative systems. Through surveys, video-recorded drawing sessions, and interviews with professional illustrators, fine artists, and art students, the authors found a persistent preference for physical media as primary creative materials. Their participants were often skeptical of AI's creative role, yet some could imagine value in systems that introduced unexpected compositional directions during preliminary sketching. Jansen and Sklar therefore identify a tension that remains central to current debates: artists may resist automation while still expressing selective interest in systems that provoke variation, interruption, or randomization within early-stage ideation.

That tension is useful, but it also needs to be read critically. The artists in Jansen and Sklar's study were interviewed before the current scale of public concern around training-data extraction, labour displacement, and the mainstreaming of corporate image generators. Their participants' openness to AI as an "inspirational agent" or means of moving through "artist's block" should therefore not be taken as a stable endorsement of present-day GenAI systems. It more accurately marks an earlier moment in which artists could still imagine machine-assisted variation without fully confronting the broader social, legal, and economic conditions now associated with these systems. Read from the present context, the study is less a justification for co-creation than an index of how quickly the terms of the debate have shifted.

Notably, the artists in Jansen and Sklar's (2021) study reported little to no experience collaborating in their practice, whether with humans or machines. When prompted, participants often interpreted collaboration as peer critique or shared studio activity rather than joint creation of a single artwork. Jansen and Sklar (2021) present their findings in order to inform the design of a co-creative drawing system responsive to artists' workflows and concerns. Their participants identified several conditions for any such collaboration, including preservation of the tactile experience of drawing, maintenance of artistic decision-making, the suggestion of new directions, and selective automation of repetitive tasks. Those conditions remain revealing, not because they demonstrate that AI can be harmoniously integrated into artistic practice, but because they show how carefully artists try to guard the parts of practice they do not wish to cede. Even in this earlier study, artists did not appear to want an AI system that would determine the work for them. They wanted, at most, a contingent and bounded relation to a system that might interrupt routine without displacing embodied authorship.

Authorship and ownership debates further complicate the language of co-creation. Gjorgjieski (2024) notes that authorship becomes unstable when AI-generated images are produced through models trained on large datasets assembled by programmers, platform owners, data workers, and uncredited source creators. Ownership is similarly complicated because those datasets often rely on pre-existing works used without meaningful consent or attribution. These concerns are not peripheral to the aesthetics of co-creation; they structure the conditions under which so-called collaboration takes place. Gjorgjieski (2024) also identifies a risk of homogenization, warning that reliance on AI-generated content may standardize expression and suppress difference. That concern is particularly relevant given that such systems do not evaluate what is funny, strange, moving, or absurd in any human sense. They generate outputs by weighting

patterns that recur across biased training data, which means that by the time a human artist selects from the results, the field of available possibilities has already been shaped and limited by the model's statistical biases and reductions.

Aesthetics and Tools

If the literature on co-creation raises questions about agency, the literature on aesthetics asks what kinds of visual and cultural value these systems produce, and under what conditions. Lev Manovich's work is central here, both because he theorizes AI aesthetics and because he tests those ideas through his own practice. In the chapters authored by Manovich in *Artificial Aesthetics: Generative AI, Art and Visual Media* (Manovich & Arielli, 2025), he introduces the concept of "extended aesthetics," arguing that aesthetic production has long involved external supports, from chisels to brushes to musical instruments to cameras, that extend human's ability to create aesthetic artifacts and externalize memory and imagination—and AI should be understood within that broader history.

> A brush can distribute chromatic pigments on a canvas in ways that we wouldn't be able to achieve with our hands alone. The simple act of sketching by hand on paper is a fundamental method of externalizing the images that arise in our minds, where both the productive and receptive sides work together in a continuous feedback cycle: since our working memory has limited capacity to retain an idea, we lay it down on paper. Our eyes then observe the sketch, allowing us to rework and develop the idea in an iterative and productive cycle between the eye, mind, sketching hand, and image on paper. (Manovich, 2024, p. 146)

Manovich's notion of extended aesthetics identifies the historical nature of the co-creative relationship between artists and their tools in the formation of aesthetic artifacts. He continues by arguing that "the tools that modern artists and designers use, like image editing software, computer aided design (CAD) programs, and music production software, can be seen as modern extensions of human creativity as well" and that "[t]hese technologies essentially distribute part of the aesthetic decision-making process outside of the artist's mind" (Manovich & Arielli, 2025, p. 146). This formulation is useful in that it resists a purely individualist understanding of artistic agency. At the same time, assuming GenAI in this lineage risks making it appear as the latest and more or less continuous extension in a familiar chain of artistic mediation which, as outlined earlier in this literature review, is a perspective that this thesis avoids. For that reason, analogies to earlier

tools or media are only partially useful. They can illuminate a history of mediation, but they can also minimize what is historically distinct and politically acute about the present moment.

Manovich (Manovich & Arielli, 2025) situates AI artworks as art objects that can be considered as engaging in dialogue with past traditions rather than as technological novelties or entertainment. He places generative media within a lineage that includes collage, bricolage, composite photography, film editing, installation, and postmodern quotation. This historical framing has interpretive value, especially in showing that artists have long worked through accumulation, reference, and recombination rather than beginning from nothing. Yet here again, the comparison requires caution. GenAI does not simply inherit those earlier strategies. It automates recombination through black-boxed prediction across industrial-scale datasets and folds the labour of innumerable prior creators into outputs that can be produced at speed and volume. The issue is therefore not whether AI belongs somewhere in art history but rather whether invoking that history risks normalizing current systems by casting them as merely another stage in an inevitable sequence of technological innovation. Moreover, GenAI amplifies the loss of historicity of art that Jameson has identified in postmodernist traditions in which aesthetic references—and the situated formal and political issues associated with these references—are blurred, distorted, and obscured by these systems.

Manovich's own practice is instructive because it reveals the limits of his theoretical optimism. In his *In the Garden* series, he uses AI to reimagine seventeenth-century French engravings, deliberately exploiting the repetitive symmetries of MidJourney's "zoom out" command to critique imposed order and aesthetic control (Manovich, 2023). Yet his process also shows how strongly such systems tend toward cliché, stylistic default, and repetition unless they are actively worked against. In this sense, his studio practice exposes a contradiction at the heart of "extended aesthetics." The system may expand formal variation, but it also narrows the field through model defaults and through the biases built into the training data. The artist's role is therefore not simply to receive new possibilities but to struggle against a machine tendency toward standardization.

Jesse MacCormack's work offers a different but related example. MacCormack used text-to-image and text-to-video generators to pursue distinctive affective and aesthetic outcomes within digital practice, especially in work concerned with trauma, distortion, and unstable environments. At the same time, MacCormack's account of being in a "complicated relationship" with AI image production is revealing precisely because it does not resolve into advocacy. Their practice acknowledged both fascination and dependence, along with awareness of the

corporations and infrastructures behind the systems. MacCormack's later withdrawal from AI, citing environmental consequences and the politics of the companies dominating the sector, is equally significant. It suggests that the aesthetic possibilities of these systems cannot be separated from the ethical conditions of their use, and that attraction to the image-making capacities of GenAI may coexist with a growing unwillingness to continue participating in its broader economy.

Beth Frey's practice comes closer to the specific terrain of this thesis because she moves AI-generated imagery back through embodied and materially intensive studio work. After early success with AI-generated images, Frey began to describe generation as "effortless" and detached, prompting her to invent methods for reintroducing labour into the work (Hampton, 2025). In *Autoeffigies*, she integrates AI-generated imagery with blind contour drawing, watercolor, pencil, video, and bodily performance so that machine-produced forms are reworked through gesture, distortion, and tactile process. Her practice is valuable not because it proves a successful balance between human and machine, but because it makes visible the tension between them. Where AI systems tend toward polish and disembodiment, Frey presses labour, imperfection, and the body back into the image. Her work therefore helps clarify what it looks like aesthetically when AI-generated images are translated into analogue process rather than left at the level of generation alone.

Together these examples show that the aesthetic literature on GenAI does not settle into a simple story of extension, enhancement, or replacement. Instead, it reveals an unstable field in which novelty, cliché, bias, labour, and resistance remain tightly bound. This is especially important for my study's concerns around how GenAI outputs shape what can be seen, selected, and pursued within drawing-based visual research, and how embodied mark-making may interrupt, narrow, or reconfigure those conditions but cannot balance it with human creativity in some generalized sense.

Politics

Experimentation with GenAI aesthetics is bound up with the politics of labour, data, authorship, and reception. In Caramiaux and Alaoui's (2022) study, *Explorers of Unknown Planets: Practices and Politics of Artificial Intelligence in Visual Arts*, they interviewed five internationally recognized artists—Memo Akten, Jake Elwes, Mario Klingemann, Kyle McDonald, and Anna Ridler—who curated their own training data and trained bespoke GenAI models that treated algorithms and data

as artistic materials as they deliberately worked with, rather than against, machine unpredictability. Importantly for my framing, these artists customize their own systems rather than relying on black-boxed corporate products, and they resist corporate AI culture and its embedded power dynamics. That distinction matters as the relation available to an artist who trains a model on self-curated data differs sharply from that of a practitioner working through commercial systems whose datasets and infrastructures remain inaccessible. Any discussion of artistic agency therefore has to account for the fact that not all AI practices are structurally equivalent, even if they are grouped together under the same label.

The advent of recent GenAI systems complicates the relationships artists weave with AI since the use of this technology is inseparable from the politics that surround it. Critics within the field of GenAI research describe the scraping of the internet and the subsequent displacement of the jobs of the people who had their work stolen by the companies that amassed the data (Bender, 2025) as well as how AI-based algorithms are used to track and monitor the masses (Caramiaux & Alaoui, 2022) as confirmed, not grey-area, ethical problems. Authorship disputes follow directly from this provenance problem, since uncredited training data destabilizes claims to originality and ownership for both the artists whose work was ingested and those who prompt the systems (Bird, 2026). Some practitioners respond not by abandoning the tools but by building their own infrastructure, training on their own data, or disclosing their methods to audiences—gestures that help them reconcile their practice with its ethical conditions (Caramiaux & Alaoui, 2022).

Charlotte Bird's (2024) study, *Artists and AI: Creative Interactions and Tensions*, examines how artists explore and contest AI, arguing for positive, responsible conversations about technological mediation rather than defensive appeals to 'human' originality. In her study, Bird documents how artists with varying levels of interaction with AI—from using image generators to building their own tools, systems, and datasets—experience similar tensions around their practice, "feeling disillusioned" by the exploitative data practices and negative and unsafe downstream effects of AI systems. The participants in the study reported that ethical and responsible intentions were central to their use of AI and creation with AI demanded interrogation of their personal values and justification of generative models, despite its minimal involvement in their practice. Bird's analysis shows how artists are actively building guardrails around the technology and the tensions surrounding the reception of practitioners who use AI, extending the analysis beyond whether AI tools work to the tensions arising outside artists' practices that shape their engagement. This points to the political dimensions of resistance and judgment that inform my study. Bird's study

provides examples of how artists who use AI face real backlash, and the broader cultural mood among many artists is one of wariness, fatigue, and concern—moral, social, political, economic, cultural, ecological, and existential—even as they recognize AI as "the start of an epoch-making shift" (Hampton, 2025) rather than a passing fad. The rise of "AI slop"—high-volume, frictionless content that critics argue "devalues" images—intensifies this judgment, casting suspicion even on artists who use GenAI critically and laboriously (Hampton, 2025). For an artist-educator, this climate of hesitancy is not external to the work but a condition of it, and the choice to engage GenAI in the studio or classroom is also a choice to navigate the labour ethics, data politics, authorship disputes, and reputational tensions that accompany it—an entanglement my research accounts take up directly.

AI in Art Education

This section reviews scholarship on Artificial Intelligence in Education (AIEd) as it bears on art pedagogy, student agency, and the ethical and institutional conditions of AI integration in higher education. The research responds to a moment in which educators and institutions are under increasing pressure to adapt teaching and learning to emergent AI systems, while questions remain about how such pressure affects students' artistic skills, knowledge, and creative development. Rather than presuming that AI belongs in art education or that it can be straightforwardly balanced with embodied studio practice, the literature reviewed here is read for the tensions it reveals between experimentation and deskilling, between AI literacy and institutional pressure, and between critical engagement and the risk of normalizing opaque, corporate systems. The review draws on Constructivist Learning Theory and Entanglement Art Education as interpretive frames, but its purpose is not to endorse AI integration. It is to examine how the field is currently describing, justifying, resisting, and regulating the use of generative systems in art education.

Artificial Intelligence in Education (AIEd)

Sáez-Velasco et al. (2024) define Artificial Intelligence in Education (AIEd) as the use of AI applications and software in educational settings to support teaching, learning, and the development of student competencies. Their study participates in a broader rhetoric that presents AI as capable of transforming education through personalization, efficiency, and new connections to the learning sciences. At the same time, they acknowledge serious concerns, including the

reinforcement of weak pedagogy, intensified surveillance and data collection, and over-reliance on computational systems in teaching. For this reason, they argue that AIEd should be understood not simply as technological innovation but as a practice shaped by pedagogical, social, cultural, and economic conditions.

That framing is useful because it opens space for critique, but it also illustrates a recurring pattern in the literature. Even when risks are acknowledged, AI often remains positioned as something education should adapt to rather than something it might refuse. Following Fawns' (2022) call for an entangled pedagogy that resists technological determinism and instead emphasizes a situated relationship between teaching methods and digital tools, Sáez-Velasco et al. (2024) investigate AI integration in higher education art programs through workshops on ethics in AI-generated content while still describing image generators as tools that assist rather than replace human creativity. That language is revealing as it reflects a common educational tendency to reassure readers that AI is supplementary, even though the very questions raised by these systems concern how they condition judgment, labour, authorship, and decision-making in ways that cannot be settled by simply naming them "assistive."

Pavlik and Pavlik (2024) consider the implications of GenAI for art education through Constructivist Learning Theory (CLT), engaging students in participatory activities in which they use image generators to create and critically analyze the visuals produced. Their study frames an educator's dilemma as whether to embrace GenAI as innovation or reject it as a threat to human creativity and intellectual property. Drawing on Deweyan and constructivist approaches to experience-based learning, they argue that interaction with automated image generation can be compatible with student knowledge construction when paired with critical reflection. Their framework has students in introductory art classes engineer prompts and examine DALL-E outputs in order to assess the system's "capacity to create visual art or simulations of it" (Pavlik & Pavlik, 2024, p. 604). This study offers a useful account of how GenAI can be integrated into classroom activity, but it also remains focused on simulation, style testing, and introductory experimentation rather than on the longer, embodied processes through which artistic understanding develops. Furthermore, although Pavlik and Pavlik acknowledge that DALL-E was trained on intellectual property without consent, that acknowledgement does not fundamentally alter their decision to use it or redirect the study toward the ethical implications of that choice. Their study places GenAI within a longer history of technological literacy and paradigms in art education and cites the general ethical risks these systems carry, it remains an example of AIEd literature that accepts

these risks as secondary to experimentation and essential skill-building with the technology—which is a path that my own research tries to avoid by allowing for students to choose non-AI in the classroom study and by attending to the risks and constraints of GenAI as much as its potential affordances.

Student Agency in Posthumanist Contexts

A central concern in this literature is how student agency is understood once AI systems enter creative processes. Some scholars advocate for the "swift adoption of these avant-garde tools, underscoring the paramount importance of equipping students with the competencies required to thrive in an AI-augmented artistic landscape" (Sims, 2024, p. 1), while others call for slower, more critical approaches that keep creativity, critical thinking, and authenticity at the centre of art education (Black, 2023; Amini, 2025). Across the AIEd literature in this review, educators and learners are encouraged to develop co-creative practices that foster or protect human agency, yet the terms of that preservation are not always clear. The literature frequently assumes that agency can be maintained if AI is used critically, transparently, or only in limited stages of the process. What is less often addressed is how agency is already being conditioned once students work with these systems. My study aimed to highlight the relational aspects of co-creation with GenAI that other AIEd literature overlooks.

Black (2023) is particularly useful because the study takes seriously the possibility that students may subvert, reroute, or creatively misuse AI systems in ways not anticipated by designers. Black and Chaput (2024) similarly report that AI can function as a collaborator in student processes and can support ideation, experimentation, and confidence in some classroom settings. Other studies note related benefits, including lower thresholds for visual experimentation and positive experiences with co-creative ideation (Vartiainen et al., 2023; Sáez-Velasco et al., 2024). Yet the same literature also warns that employing AI without criticality may damage learning, weaken judgment, and encourage dependency (Black, 2023). Black and Chaput (2024) further note that such systems cannot generate concepts, abstract thought, or genuine criticism, while Sáez-Velasco et al. (2024) document students' increased experimentation alongside concern over diminished control, blurred authorship, and the outsourcing of creative decisions to opaque systems. These tensions return the discussion to questions about agency:

> As a result of using a specific GenAI, what human agency does the GenAI technology **take away** from us if used? If we modify or subvert the GenAI, or dance in a co-creative process,

> what agency do humans **employ** versus the technology itself? In training GenAI applications, how can we **retain** important human agency while using GenAI? What decision can we make as teachers, learners, and users to maintain important human agency? (Black, 2023, p. 457, emphasis from original text)

In this context, posthumanist framing of agency as relational is useful as long as the distribution of agency is not treated as neutral or equitable. Students may still be working through systems shaped by logics that they did not choose and may not fully understand. For those who choose to integrate it, Black (2023) recommended an open dialogue with learners, critical evaluation of GenAI, instruction in proper research methods, and a commitment to students' own thinking and making skills, while remaining open to learning about AI use from students themselves. However, expectations on educators to keep pace with emergent technology unfolds amid precarity, heavy workloads, limited support, and administrative pressure to deliver AI literacy, often without corresponding time or infrastructure for critical understanding or pedagogical development (Black & Fullerton, 2020).

Hutson and Robertson's (2023) case study, *A Matter of Perspective: A Case Study in the Use of AI-Generative Art in the Drawing Classroom*, is one of the closest precedents to the present project because it examines AI image generators in relation to traditional drawing instruction. Their students found AI-generated images useful as visual references for iteration and inspiration, and many did not simply accept outputs as given but selected, edited, and synthesized them in the process of producing pencil drawings. At the same time, the generated images contained distortions, especially in linear perspective, that required correction, and students often combined multiple outputs rather than relying on a single generated composition. The study therefore indicates that AI can affect ideation and reference gathering without removing the need for technical skill and judgment.

Where the literature positions GenAI outputs strictly as starting points rather than finished products, it returns to CLT models of inquiry-driven, experiential, and project-based learning. By overseeing the creative process from inception to completion, educators may help students identify and critically assess the nature of their relative autonomy in these co-creative encounters. However, to conclude from such studies that AI image generators merely support or assist drawing risks understating the extent to which the systems have already conditioned what students are seeing, selecting, and treating as viable possibilities. The question is not only whether students remain active in the process, but how the field of possible decisions has been shaped before they

act. For that reason, the literature on student agency is most useful not when it reassures readers that human creativity remains intact, but when it exposes how agency becomes contested, partial, and negotiated once AI systems enter pedagogical space.

Potential Benefits and Concerns

Amini's *AI in Art Education: Innovation, Ethics, and the Future of Creativity* (2025) synthesizes a wide range of recent studies in order to identify what educators are being told AI might offer to art education. The benefits described across this literature include experimentation with composition, style, and visual structure using AI image generators to see if their attention might shift to conceptual depth and narrative development within screen-mediated art practices (Chen, Liao, & Yu, 2024; Pavlik & Pavlik, 2024; Zhou & Lee, 2024). Amini identifies co-creative approaches in which students iterate and engage critically with the conventional and unconventional aspects of the results GenAI systems produce (Sáez-Velasco et al., 2024; Fleischmann, 2024; Khorasgani et al., 2024; Kong et al., 2024) and experiment the technology's capacities for prototyping and interdisciplinary exploration (Fathoni, 2023; Vartiainen, Tedre, & Jormanainen, 2023). Some researchers also extend these claims into the domains of conceptual and cognitive development, suggesting that AI systems may support brainstorming, analysis, and access to large image archives (Heaton, Low, & Chen, 2024; Huang, 2023; Mazzone & Elgammal, 2019; Lin & Chen, 2023). These claims often rely on a rhetoric of expansion, enhancement, innovation, and future-readiness that should be treated critically. Much of the literature remains better at describing new capacities than at establishing what kinds of educational value those capacities produce, for whom, and under what conditions. This is especially important in art education, where slowness, uncertainty, technical struggle, and embodied repetition are often central to learning rather than obstacles to be bypassed.

Amini (2025) is also attentive to the ethical challenges surrounding AI in art education, including authorship, ownership, intellectual property, plagiarism, bias, and representation. He argues that AI image generators complicate this humanist notion by synthesizing images from datasets of pre-existing work, leaving students unable to distinguish their own contribution from algorithmically generated elements (Hall & Schofield, 2025; Pavlik & Pavlik, 2024; Park, 2023). He also highlights the legal disputes arising from training on copyrighted material without consent, the unstable ownership status of generated images, the problems surrounding when systems simulate

other artists' works and styles, and the systemic inequalities reflected in training data (Murray, 2023; Bird, Ungless, & Kasirzadeh, 2023; Black & Chaput, 2024).

These concerns deepen when set against the limits of the systems themselves. As Black and Chaput (2024) emphasize, GenAI systems do not create or critique in any human sense; they generate outputs through probabilistic recombination, and any apparent novelty emerges from statistical patterning rather than lived experience, intention, or understanding. Other researchers raise broader concerns about algorithmic bias, corporate opacity, and the commodification of creativity (Pavlik & Pavlik, 2024), echoing Chomsky's (2023) observation that such models encode human prejudice while lacking moral reasoning and worldly experience. Black (2023) likewise cautions against the destructive potential of state or corporate control over GenAI systems, while Sáez-Velasco et al. (2024) document similar unease among students who value experimentation yet worry about deskilling and dependency on opaque infrastructures.

Taken together, this literature presents benefits and harms not as neatly balanced categories but as entangled claims that remain difficult to measure and separate in practice. The same systems praised for speed, ideation, and experimentation are also criticized for bias, plagiarism, dependency, commodification, disinformation, surveillance, and weakened judgment. This suggests that the educational question is not whether AI offers both benefits and concerns, but whether the forms of convenience and acceleration it promises are worth the pedagogical, ethical, and political conditions that accompany them.

Pedagogical Considerations

The pedagogical literature asks what educators are expected to do if AI systems are introduced into art education. The literature suggests that navigating these demands requires that students learn to assess algorithmic bias, understand how these systems function, identify intellectual property concerns, and disclose the role of AI in their process. Other scholars likewise emphasize the need for critical thinking, ethical reasoning, and creative problem-solving rather than technical proficiency alone (Black & Chaput, 2024; Huang, 2023). Such integration, the literature stresses, must go beyond technical proficiency to foreground critical thinking, ethical reasoning, and creative problem-solving (Park, 2023). The literature emphasizes clear classroom guidelines to maintain academic integrity and discourage passive reliance (Amini, 2025). By guiding students to evaluate authorship and bias and to discuss AI's role in the creative process alongside the controversies around copyright, educators can help students grasp both AI's contribution to co-

creation and its broader social and ethical stakes. These recommendations are valuable, but they also make visible the extent to which AI integration transfers new forms of labour and responsibility onto educators and students.

Amini (2025) identifies three recurring pedagogical responses in the literature. The first is a hybrid studio model in which AI is added as a scaffolded layer within existing practice so that foundational skills remain in view (Sáez-Velasco et al., 2024; Vartiainen, Tedre, & Jormanainen, 2023). The second is critical AI literacy, which includes attention to copyright, training data, bias, and the social histories sedimented in datasets (Murray, 2023; Zhou & Lee, 2024). The third—not taken up in the scope of my research—is interdisciplinary or computational fluency, in which students move beyond basic system use toward programming or machine learning concepts (Chen, Liao, & Yu, 2024). Together, these proposals suggest that if AI is taught, it should be taught not as frictionless convenience but as a contested socio-technical formation requiring critical and historical understanding.

Black (2023) offers a practical example that recurs throughout this literature—and resembles the design of my study—in which students might use DALL-E during early concept development and then produce a final artwork by hand. Such workflows are often presented as preserving relative human agency and maintaining embodied production processes while limiting AI to process work only. However, this approach is treated with caution as this structure may reduce some risks, but it does not resolve the underlying questions of provenance, bias, labour, or the extent to which early-stage image generation already shapes later creative judgment. The pedagogical issue, then, is not simply how to fit AI into existing studio practice, but whether, when, and on what terms such integration should occur at all.

Technological Impacts in the History of Art

This section situates AI image generators in relation to the longer history of art and technology, but it does so cautiously. The aim is not to present GenAI as simply the latest step in an inevitable sequence of artistic tools, nor to suggest that earlier technological shifts offer a reassuring template for the present moment. Rather, the section reviews traditions of artistic training, the role of reference material in drawing, and earlier moments of technological mediation in order to clarify what I encounter in the research. These comparisons are useful only if they remain attentive to what makes contemporary GenAI systems historically distinct.

History of Artistic Training

In *Creative Convergence: The AI Renaissance in Art and Design*, Hutson et al. (2023, p. 101) review long-standing traditions through which artists have trained, from medieval guilds and apprenticeships to academies and contemporary institutions. Across these formations, artists developed skill through rigorous practice, often working within inherited methods while also studying art history, literature, and theory. As the literature purports, this combination of practical, historical, and conceptual learning formed the basis of artistic training in Western contexts for centuries. Hutson et al. (2023) offer an optimistic account of AI integration in art education, arguing:

> ...by merging the traditional foundations of art education with the cutting-edge capabilities of generative AI, artists and designers can expand their creative horizons and continue to push the boundaries of artistic expression in the digital age ... allowing students of today to explore new realms of creativity. By embracing these tools alongside the rich history of art instruction, artists and designers can embark on a transformative journey of artistic discovery, creating works that blend the power of human imagination with the computational capabilities of AI. (p. 129)

This argument is useful as a point of tension that illustrates how readily some contemporary writing folds GenAI into the language of continuity, enhancement, and artistic progress. A closer view of artistic training shows that technologies have certainly shaped how artists learn to translate the world onto two-dimensional surfaces through observation, proportion, and perspective including devices such as the Albertian grid, the camera obscura, and later the slide projector which mediated vision and supported study. Hutson et al. (2023, p. 103) catalogued some of the visual source materials used in these processes, including collections of plaster casts, prints, and libraries. Yet these tools did not generate imagery through predictive recombination of vast external datasets, unattributable to their sources, nor were they built on the unconsented harvesting of other artists' work. For this reason, historical reference to earlier aids of representation can clarify the longstanding role of source and mediation in art, but it should not be used to minimize the different social and material conditions of GenAI.

Historical writing on the drawing methods remains valuable here because it traces the role of visual reference and copying in academic training while also emphasizing drawing as an iterative and exploratory process of developing ideas and testing technique (Dethloff, 1992). From classical

exemplars to photographic references, visual research has long involved studying predecessors, observing recorded imagery, and learning through repetition and transformation. Historical records also foreground the material intentionality of mark-making as a record of decision-making, which is particularly relevant for a thesis concerned with embodied drawing practices (Dethloff, 1992). At the same time, copying a print, cast, or photograph differs significantly from working with GenAI outputs. Traditional references may mediate vision, but they still refer back to identifiable sources, material histories, and observable acts of making. Copying pre-existing artworks can instruct a student on how something was made, including the materials and techniques that were used, but GenAI systems withhold this information.

Richard Thomson's essay "The Creative Copy in Late 19th-Century French Art" (Dethloff, 1992) demonstrates that copying was never merely mechanical or secondary. It served as a pedagogical and creative process through which artists engaged masterworks, rehearsed form, explored technique, and negotiated the relationship between tradition and originality. Thomson also warned of a kind of derivative sterility that can arise when artists rely too heavily on reference imagery without transforming it through interpretation. Thomson points to artists such as Manet, Degas, and Cézanne, who challenged strict academic copying and produced work that broke from tradition in favour of originality and expression. From this chapter, the analysis of reliance on reference imagery and copying practices—and of the complex skills embodied through mimetic action—is especially relevant. Risks of overreliance become newly charged in relation to GenAI where the risk is no longer only that reference may lead to derivative work, but that the reference itself has already been statistically averaged, biased, and detached from its sources before the artist encounters it. In this respect, the problem is not simply imitation. It is the narrowing of possibility through systems that pre-process visual culture according to patterns prevalent in compromised training data.

Degas offers an instructive case because he worked at a moment when photography altered not only how the world could be represented but also what could be represented at all. As Kathryn Brown (2016) shows, Degas absorbed photographic logic into his drawing and painting through radical cropping, asymmetrical composition, unusual viewpoints, and attention to arrested movement. His study of Muybridge's motion photographs changed how movement itself could be depicted, and later in life he used a Kodak camera as a means of catching fleeting gestures and effects of light. Yet Degas did not surrender drawing to photography. He worked through those references by means of sustained observation, bodily perception, and mark-making.

This comparison is not meant to prove that artists will always adapt productively to new image technologies. Photography altered representation, but it did not operate by scraping and recombining millions of pre-existing artworks and photographs through opaque corporate infrastructures. It changed what artists could see and capture; GenAI changes what is statistically offered back to them from a vast and often contested archive of others' work.

This dynamic continued into the twentieth century as mass-media print and digital reproduction expanded access to images and reference material. Hutson et al. (2023, p. 109) emphasize photography's role in helping artists gather and sort references and position AI-generated images as an extension of those photographic resources. That comparison may illuminate a shared concern with reference, but it remains incomplete. The relevant questions are not simply whether GenAI extends prior forms of image access, but why such extension is needed, what kinds of reference existing archives do not provide, and what is altered when those new references are generated by systems built on large-scale extraction and automation rather than by acts of observation, recording, or collection.

Technology and Artistic Labour

In *Drawing in the Digital Age: Observations and Implications for Education*, Simmons (2019) argues that digital tools require foundational drawing skills to be redefined rather than abandoned. Despite the expansion of digital media and the decline of traditional drawing instruction in some contexts, he maintains that drawing remains central to observation, conceptualization, and problem-solving. Invoking the Renaissance understanding of drawing as a cognitive foundation for the visual arts, Simmons describes drawing as a space where ideas are explored, tested, and developed across disciplines. Although Simmons wrote before the public boom in text-to-image systems, his argument remains useful because it foregrounds drawing as an embodied and cognitive practice that cannot be reduced to image production alone. He purports that drawing is foundational for observation, conceptualization, and problem-solving—something digital tools cannot replace, but can impact creative processes in ways that are worth exploring. In this way, my research considers whether AI-generated images can serve as new sources of visual research and how they impact the interpretive and critical skills developed through embodied drawing responses to these outputs. However, the move from digital tools in general to contemporary GenAI systems should not be made too quickly. Earlier digital tools altered workflow and editability, but they did not generate visual proposals through opaque model inference trained on vast scraped datasets.

For this thesis, the question is therefore not whether GenAI belongs somewhere within the digital age of drawing, but how its conditions of production reshape visual research differently from earlier digital media in ways that change the terms of reference, authorship, and agency within drawing practice.

Recent work by Epstein et al. (2023) compares the effects of generative AI with earlier technological innovations and suggests that AI may reconfigure drawing's relation to other media rather than render drawing obsolete. Their study frames generative AI as an artistic medium that opens new frameworks for art education rather than as a productivity tool. The article drew parallels to the digitization of music, animation, and photography, each of which impacted creative practice and labour structures yet ultimately gave rise to new practices and forms of employment as the technologies were more widely used (Epstein et al., 2023, p. 2). Such comparisons are useful to remind us that technological shifts have repeatedly unsettled artistic practice and labour structures, but the analogy becomes misleading when it implies that GenAI will simply follow the same pattern as earlier media by first disrupting and then productively integrating into creative fields. Epstein et al. (2023) themselves identify how GenAI systems do not merely alter the means by which artists produce images since they are built by training on vast datasets of pre-existing work, much of it gathered without consent, and they challenge conventional understandings of authorship, ownership, inspiration, sampling, and remixing. This difference is a crucial complication within an otherwise familiar trajectory. Photography, Photoshop, and digital distribution all impacted art, but none relied on industrial-scale appropriation of millions of visual works in order to automate output generation and compete with the very workers whose labour fed the system.

This longer view also requires situating GenAI within the broader history of digital image-making and of AI art before the current moment, while remaining attentive to what makes the present moment distinct rather than treating it as simply the next entry in a continuous timeline. As mentioned in my thesis introduction, the digital revolution of the late twentieth century had already reconfigured artistic practice well before generative models arrived. The emergence of Adobe Photoshop in the late 1980s and early 1990s transformed the image into an infinitely editable, layered, and composite surface, blurring the line between photograph, painting, and montage and provoking early debates—familiar from today's AI discourse—about authenticity, manipulation, and the deskilling of embodied art practices (Arthur, 2010). The internet, image search, and social media expanded access to global visual culture while accelerating appropriation, remix, networked

distribution, and algorithmic circulation. Artists working in traditional media responded in many ways, including hybrid workflows that combined digital reference with embodied mark-making. Yet these analogies to GenAI remain limited. For that reason, this thesis treats historical analogies as provisional rather than predictive. They are valuable insofar as they show that artistic practice has long been entangled with technological mediation but they become misleading when they imply that adaptation to GenAI is inevitable, neutral, or historically routine. Consent and scale are not incidental details; they form the core distinction separating GenAI from earlier media. Recognizing this difference resists the familiar educational-technology narrative that GenAI is simply the latest tool to which artists must adjust.

Gjorgjieski (2024) places the present era within a longer history of AI's influence on painting, sculpture, and photography, tracing a lineage from Harold Cohen's AARON in the 1960s through neural-network experiments and later GAN-based image production. That history is important because it prevents the present moment from being described as if AI art emerged from nowhere. AI image-making evolved over decades before the public arrival of text-to-image models such as DALL-E and Midjourney. Recognizing this lineage guards against treating GenAI as a wholly unprecedented rupture, while also resisting the opposite risk of treating it as merely one more technology that artists will inevitably absorb. Unlike AARON or early GANs, which were typically trained on artist-curated or narrowly scoped datasets, contemporary GenAI systems are trained at a scale and with a commercial infrastructure that has no clear precedent in this lineage—a distinction this thesis treats as central rather than incidental to understanding GenAI's ethical and pedagogical stakes.

The art-historical perspective developed here situates GenAI within long-running debates about authorship, skill, mediation, and technological change, while also insisting that the present moment cannot be understood by analogy alone. AI image generators are not just another tool. They are products of large-scale socio-technical systems shaped by capital, extraction, and hidden labour. The key questions are therefore not only how such systems resemble earlier image technologies, but whose work they absorb, whose visual grammars they privilege, whose labour they displace, and what kinds of artistic and pedagogical futures they make more or less possible.

Chapter 5: Autoethnographic Research (Stage 1)

This chapter focuses on the first of a two-stage research study and presents the autoethnographic inquiry in which the central research question is first put into practice: How might co-creative encounters with AI image generators affect the creative and technical opportunities of visual research for drawing-based practices? By completing the same drawing assignments first without and then with AI image generators, I attend to how these systems influence ideation, concept sketching, and the development of hand-made drawings, and how non-human factors beyond the AI system—pencil crayon, soft pastel, and the tooth of the paper—shape the process alongside, and sometimes against, the technology. As outlined in Chapters 2 and 3, an a/r/tographic methodology guides this work by treating artmaking, writing, and pedagogy as entangled sites of inquiry rather than separate domains in which acts of making become a site of data, reflections a turn of analysis, and findings material for the pedagogical choices carried into Stage 2. Questions of authorship, ownership, and agency emerge here as well, but are fully theorized in Chapter 2 and returned to in Chapter 7, where these autoethnographic findings are read alongside the classroom study.

Overview

In this first stage of the research, I engaged in an autoethnographic study that revolved around the process of completing a series of drawing-based assignments in two creative cycles: first as coursework in an undergraduate class, and then as an independent study. In the fall of 2024, I completed three drawing assignments as a student enrolled in the VISA 3080 Drawing Methods undergraduate class at York University, led by Professor Jessica Campbell, that emphasized the use of analogue drawing materials within conceptual practices rather than foundational drawing skills. In the summer of 2025, I revisited the same assignments during an independent study, again under the supervision of Professor Campbell, this time deliberately incorporating AI-generated images into my visual research in order to explore the possible benefits and limitations of integrating AI image generators into my process work for drawing-based outcomes, again using physical materials.

Across both cycles, the autoethnographic research was grounded in a practice that emphasized the development of artistic voice through personally meaningful intentions that guided the visual research and embodied drawing practices. By completing each assignment first without AI, then revisiting them with AI integrated into the visual research process, I was able to compare how my process, creative decisions, and use of materials were affected by AI-generated visual references and analyze the co-creative aspects of distributed agency that emerged between myself, the technology, and the materials that I chose. The section that follows begins with a summary of the course-based assignment requirements that were completed in the first creative cycle and revisited in the second cycle, and the documentation process that serves as the content for the creative component of my thesis.

Creative Cycle 1: Initial Assignments for Course Work

The following descriptions were copied from the VISA 3080 course outline:

Course Description

> Students incorporate observational drawing with abstract and conceptual visual solutions to develop a personal style that confirms drawing skills integrated with the creative process. VISA 3080 Drawing Methods is a studio class designed to increase both technical and conceptual skills with an emphasis on the creative process and self-directed art making. Course work is in the form of extended assignments to be researched and executed both inside and outside the class with emphasis on individual solutions accomplished in consultation with the instructor.

Assignments

1. Recycle: Trawl for objects, surfaces, discards, debris of our society on and off campus putting together a storehouse / collection of raw material for the project. Combine and create a large 2D artwork using this found material along with traditional and non-traditional drawing materials on the theme of excess, consumerism, the environment, ecology, reinvention and re imaging our world.

2. Body As Map: Research the concept and aesthetics of maps/mapping and/or data visualization (visit York Map Collection) and apply this to the body. You may refer to both the interior and exterior of the body to include the nervous system, skeleton, emotional landscape, etc, as well as alternate methods of body mapping such as acupuncture points or chakras. Organize or install the three drawings into a personal landscape.

3. Identity Remix: Express a sense of self within the broader context of family, community, cultural background, language and history. Research and collect stories (verbal or written), mementos such as objects, costumes, textbooks, yearbooks, and other traces of a personal nature such as old photographs, postcards, diaries. Using these references, directly or indirectly, create two or more drawings that weave the personal with the political.

These assignments challenged me to develop personal concepts using a variety of approaches for research, drawing techniques, compositions, and materials. Digital drawing and AI tools were not part of the course curriculum, and while there was no explicit prohibition against AI, it was neither encouraged nor discussed in the course materials; to my knowledge, no students chose to use it. I did not use AI at this point in my study as I wanted to have a baseline to compare against with the subsequent cycle in which AI would be integrated more consciously into my process. Through the process of creating the work for the assignment requirements in this class, I developed concepts using a variety of visual research sources and physical drawing materials. The findings and analysis of how this process informed the second creative cycle of the study are addressed further in this chapter.

Creative Cycle 2: Revisited Assignments for Independent Study

For the second creative cycle in which I revisited each of the three assignments from the VISA 3080 coursework, I built on thematic and compositional elements that felt successful in the initial assignments and intentionally integrated AI image generators into the visual research processes in order to examine if generative systems might open or narrow customization, ideation, or iteration processes in my drawing practice. My intentions for using image generators varied across assignments depending on their different aesthetic and conceptual demands which allowed me to assess a range of AI responses to specific visual research needs. In addition to assessing emergent opportunities or limitations that might arise using GenAI within my own practice, this part of the autoethnographic research also informed the design of the classroom-based research in Stage 2 *(See Chapter 6)*.

Documentation Process

Process work, artworks, and artist statements were compiled into a process book that serves as the primary creative component for this thesis. The process book is a multi-page document used to gather ideation notes, reference images, sketches, final drawings, and written reflections,

providing a coherent record of conceptual and compositional development. This format is particularly valuable in the context of AI-mediated projects, where the evolution of prompts and generated images become integral data for the research. This organized documentation supports my a/r/tographic intention to focus on the conceptual process rather than solely on the resulting artwork.

The contents of my process book included work for both creative cycles of the autoethnography. For the revisited assignments with AI image generator integration, prompts and any Firefly settings—such as for style, composition, angle, filter—used to generate images were documented to provide a transparent trail of co-creative process. This visual research method served as a primary means of observing the iterative relationship between prompt engineering and the resulting generative outcomes. Artist statements were provided for each assignment to serve as expressions of artistic intention. Reflexive writing on process and findings accompanied the AI-integrated projects to assess how image generators functioned within visual research.

The process book was designed in Adobe InDesign—my preference of software for multi-page layouts—but the format itself is transferable to more commonly used presentation tools in studio art programs. In Stage 2, students were invited to create their own process books using publicly available platforms such as Google Slides or Microsoft PowerPoint, aligning their documentation process with the autoethnographic model while respecting differences in technical skills and course expectations.

See the accompanying creative component in the Appendix for process work, drawings, and complete artist statements.

Findings: AI Image Generators in Practice

Across the process of creating the work for the revisited versions of the assignments in the second creative cycle, I traced the three openings introduced in Chapter 3—customization of reference material, ideation through visual experimentation, and iteration through variation—without assuming any of them would materialize. At the same time, I remained attentive to the fact that these openings were never neutral expansions. As soon as I engaged with an AI system, the field of available images was already being narrowed by its training data, stylistic defaults, safety filters, and interface design. Each apparent opening therefore also signaled a prior narrowing, in which

certain visual possibilities became more available than others before I ever began selecting or drawing.

I read each encounter through the four movements by which an opening might *invite, redirect, constrain, or withhold* exploration. An encounter *invited* exploration when a surprising output or a material response on the page drew me toward a new question or compositional possibility I had not planned. It *redirected* the work when a repetitive output—or the resistance of the paper—turned me away from my initial intention and toward a different aspect of the image or process. It *constrained* the inquiry when safety filters, stylistic defaults, or my own habitual responses funneled the work into a narrow or predictable path. And it *withheld* possibility when neither the system nor the materials yielded an opening at all, leaving the process in familiar territory and, in that absence, revealing the limits of the technology and of my practice. Crucially, I attended to these movements not only in the AI system but in the materials themselves: agency in this inquiry is distributed, and the pencil crayon, soft pastel, and paper were active participants whose resistances and affordances modulated every opening the screen seemed to offer.

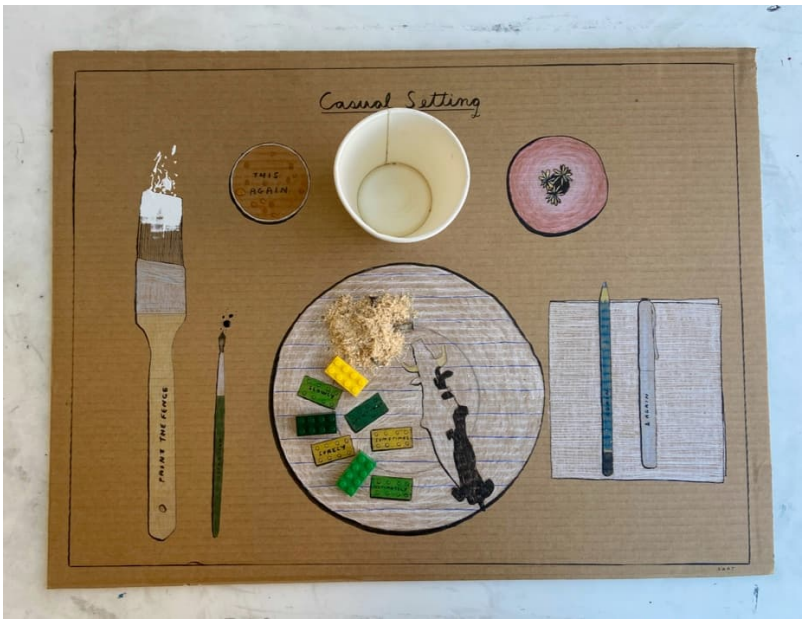
The explorations of themes, compositions, and materials from the first creative cycle informed the decisions that I made in the second cycle. For the revisited assignments, I intentionally developed a more consistent aesthetic across a series of three drawings titled *Signs From Above,* which continued to explore the theme of fatherhood from a new emotional vantage point following my father's death between the two cycles. During this period, my first visits to church introduced additional spiritual dimensions to the work, and a uniform aerial perspective was used to suggest an "alternate" or divine viewpoint from which to reflect on human temporality within a vast expanse. Text elements were overlaid on the compositions using separate sheets of semi-transparent vellum—something I had recently begun to integrate into my drawings to provide additional conceptual layers. The drawings were executed in my primary media—pencil crayon and soft pastel—to provide continuity with my established practice in which I commonly use photographic references for observational precision and expressive marks to create a sense of what I call 'unbounded groundedness' or 'whimsical realism.' Maintaining consistency of concept, process, materials and mark-making allowed the study to focus on differences in visual research methods between the two cycles and to assess whether the use of AI-generated reference images would create openings in my established modes of drawing.

Assignment 1

In the original assignment, Recycle, students were required to collect physical objects and tactile surfaces with consideration for how found materials and discarded debris could be used to inform a two-dimensional composition on themes related to the material world, both natural and human-made. For my initial response, I created a mixed media drawing, titled *Casual Setting,* using traditional drawing materials (ink and coloured pencil), non-traditional art materials (house paint, cardboard), and found objects (sawdust, screws, cardboard, Lego, coffee cup). The piece examines themes of reinvention, materiality, excess, and consumerism in relation to my roles as artist, father, and son. In terms of visual references, this piece, inspired by the work of Saul Steinberg and Dadaist traditions, included a mix of drawing from direct observation and memory/imagination.

Figure 1

Casual Setting



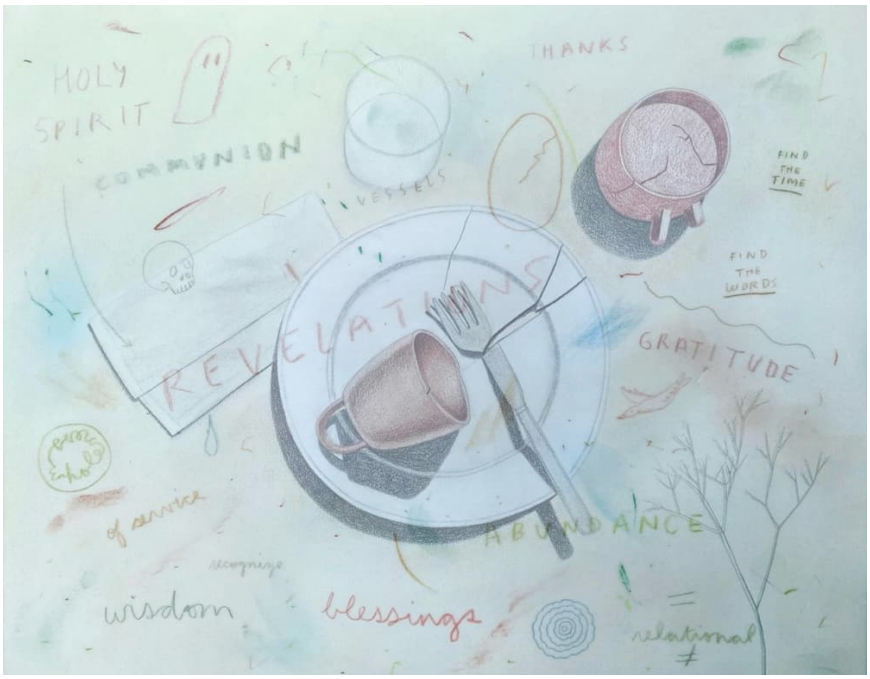
Note. Casual Setting, 2024, mixed media. Artwork by Jay Dart.

The revisited assignment, titled *At Your Service,* retained a similar conceptual and compositional approach with a place setting as a location for the arrangement of a series of symbolic objects. However, the second piece expands on the themes of materialism and fatherhood to draw connections between acts of service in daily life, artistic production, and

spiritual practices while I contemplate fatherhood. Reference images were required to assist with the rendering of realistic details of a place setting from an aerial perspective. My prompts sought to push the image generation beyond slick perfection through requests for objects that were “broken” or “misshaped” for a damaged or imperfect quality, and “artisanal” to get objects with a hand-crafted quality.

Figure 2

At Your Service



Note. At Your Service, 2025, coloured pencil and pastel on paper. Artwork by Jay Dart.

For many outputs, the generator’s repetition, over-smoothing, and unexpected artifacts constrained my intention for a certain direction. However, surprising details invited me to consider new compositional details that I had not intended. The surprising elements opened new conceptual possibilities that significantly pushed the conceptual intentions of the work. An opening emerged for customized and distinctive visual references as Firefly generated a series of aerial place settings that would have been difficult to locate through conventional image searches, and it responded well to requests for specific imperfections in the objects. The opening of emergent opportunities for thought-provoking visual ideas and compositions as Firefly’s “hallucinatory” outputs—such as handles on the underside of teacups, two adjacent handles on a

mug, or a plate crack that transformed a knife into a fork—prompted conceptual shifts that I chose to incorporate into the final drawing. These unexpected details enriched the piece's commentary on service, care, and distortion. The process invited productive iteration as Firefly quickly generated multiple variations, although this was mitigated by excessive prompt revisions that were required because many outputs did not successfully match the requested details. Overall, the final drawing response relied on a synthesis of several generative outputs from this process, demonstrating how AI-generated references open possibilities for customization, ideation, and iteration, but still required my oversight for visual and conceptual resolutions. Those resolutions were not settled on screen but in the act of drawing: rendering the broken and artisanal objects in coloured pencil and ink, I found that the tooth of the paper and the build-up of pigment reasserted their own agency, softening the generator's slickness and pulling the imperfections back toward the hand-made quality I was after. The opening the system offered was, in this sense, completed—and partly redirected—by the materials.

Assignment 2

For the initial version of this assignment, I addressed the project requirements to connect the concept and aesthetics of mapping and data to embodied themes for a series of three drawings, titled *In, Inner, Innerer,* that offer a personal landscape related to my family's history in rural Ontario. A class field trip to the Map Collection at York University's Scott Library instigated a cartographic design for the first piece in the series in which I arranged "tidings", or bits of information seen and overheard, collected from daily life. In the revisited assignment, *In The Clouds,* I used a similar format but shifted from referencing a cartographic design to a photographic map of a rural community from an aerial perspective. Conceptually, I wanted the landscape to reflect relationships between separate entities—specifically, between my father and me—so prompts requested two hamlets and a complex web of roads and streams from the AI image generator to support that narrative.

Figure 3

In, Inner, Innerer



Note. In, Inner, Innerer, 2024, ink, graphite and coffee on paper. Artwork by Jay Dart.

Figure 4

In The Clouds



Note. In The Clouds, 2025, coloured pencil and pastel on paper. Artwork by Jay Dart.

Firefly's Generative Expand function (out-painting) allowed me to extend the edges of selected images beyond their original frame, and Generative Fill (in-painting) enabled the addition of localized details such as a crop-circle design, a sea monster, and a giant bonfire. These modifications embedded narrative elements—based on prompts that connected with the conceptual intentions mentioned in the previous paragraph—into the map image and demonstrated the potential of Firefly's feature for iterative refinement of a base composition.

For this assignment, an opening emerged in relation to image customization as Firefly generated aerial landscapes and road networks as per my prompt requests, but the opening was constrained as Firefly struggled to provide the specific configuration requested (two distinct hamlets) and offered limited control over zoom level and viewpoint. In practice, Google Maps would have been an easier and more predictable source for photographic references, while archival maps (used in the initial assignment) offered rich but less customizable material. As Firefly produced strange road and waterway arrangements, an opening emerged that redirected me to consider different map configurations than I had intended. Stylistic outputs (illustrative versus photographic) were unpredictable even when prompt wording and style settings were constant. Firefly performed efficiently in generating variations, but guiding those variations toward a result that matched my prompts required significant experimentation that contributed to my understanding of communicating with the GenAI system and the limitations of its outputs.

Due to the limitations I was experiencing with Firefly's constraints, I experimented with the Leonardo AI image generator as a comparison point—a point of departure from the ethical line that I established for my study but one I was willing to cross occasionally to see what other systems were capable of. Leonardo offered advantages in atmospheric quality for photographic images and produced illustrative outputs that more closely resembled traditional topographic maps, yet its results were similarly unpredictable and difficult to steer. Attempts to generate a true "bird's-eye" perspective consistently introduced a visible horizon, suggesting default training biases of the system. It was only in the third assignment that more precise prompt language eventually yielded the desired perspective, underscoring the importance—and difficulty—of prompt-crafting as a technical skill in AI-based visual research. This technical skill requirement was an important discovery in the project, identifying how image generators demand very precise written prompts to generate desired image outputs.

Through the process of developing the AI-influenced version of this assignment, a question emerged: if I already knew what I wanted for the final composition, why turn to AI-generated

references? My reflection on this intention clarified the co-creative aspect of distributed agency in the process of working with AI image generators for visual research. I was not commissioning the system to execute a fixed picture in my head; I was seeking reference material for a viewpoint—a bird's-eye perspective over two hamlets—that I could not readily obtain from photographs, archival maps, or my own imagination. What I held was an intention and a set of constraints, not a finished image. By supplying that intention through prompts, I informed the system, but the system informed me in return through its horizon lines, its strange road and waterway arrangements, and its limitations of composition and customization that revealed which of my requests were legible to it and which were not, and several of those responses redirected the composition I eventually drew. In other words, agency was neither mine nor the machine's but moved back and forth between us in the visual research process—and, in the drawing phase, between me and the materials—which is precisely the relational, distributed agency this study sets out to trace rather than the humanist picture of an artist issuing commands to compliant tools. Questions around authorship or ownership of the resulting drawing responses to GenAI outputs in my study sit within a long history of critiques related to humanist discourses.

Assignment 3

For the final assignment, I referenced childhood memories with my father. For the initial attempt at this assignment, a drawing titled *Fatherhood Records*, three distinct memories were addressed, only one of which *(The Gamblers)* had a photographic reference; the others were rendered using imaginative approaches for undocumented memories. In the second cycle, titled *Of The Past,* for the purposes of this study, I completed only the drawing based on the lake memory. For this piece, a consistent aerial, bird's-eye perspective was crucial, both to match the broader *Signs From Above* series and to support more accurate rendering of the bathing figures' proportions from above. AI image generators were therefore tasked with producing images of figures in water seen from directly overhead, with specific requirements for water surface, lighting, and camera angle. In the role of the prompt-crafter, I made requests of the GenAI system, but this only provided minimal control over the outputs. I did not have precise expectations of the images and was prepared for the image generator's contributions to the process and its influence on the composition.

Figure 5

Fatherhood Records (The Gamblers)



Note. Fatherhood Records (The Gamblers), 2024, coloured pencil and pastel on paper. Artwork by Jay Dart.

Figure 6

Of The Past



Note. Of The Past, 2025, coloured pencil and pastel on paper. Artwork by Jay Dart.

This assignment brought into focus a distinction between what it means to generate an image from memory and the mind, as opposed to sourcing one from an image generator. A familiar critique holds that these stand in direct opposition—that to reach for found or generated material is to outsource the mental work of visualization that the artist should be doing internally, and that an over-reliance on external imagery atrophies the imaginative capacities drawing is meant to develop. While this concern echoes my own commitment, stated in Chapter 1, that AI should not supply intention or initial inspiration, my experience in this assignment introduces a crucial complication on this matter. The lake memory was real and deeply felt, yet the mind does not store a memory as a high-detailed, correctly foreshortened photograph. When I tried to render the bathing figures from directly overhead in the photo-realistic register my *Signs From Above* series required, imagination alone could not supply the specific information—the foreshortened proportions of bodies seen from above, the behaviour of light on a moving water surface, the precise camera angle—that realism demands. Drawing only from the mind's eye produced a felt impression, not the spatial and optical detail I was after. What I was outsourcing, then, was not the act of imagining the scene—that remained mine, rooted in lived memory and conceptual intention—but the gathering of perceptual reference for details I could not directly observe and that no existing photograph recorded. This is the same role drawing has long assigned to photographs, mirrors, maquettes, and life models as external supports that inform the rendering of what the artist has already chosen to depict. Seen this way, the image generator did not replace the mental labour of generating the image; it extended my visual research where memory and imagination was lacking, while the conception, selection, and—above all—the embodied act of translating reference into pencil crayon and soft pastel on paper stayed firmly with me and my materials.

In terms of openings, AI support for custom reference images was productive in relation to my own practice. Firefly was able to generate multiple images with the desired aerial perspective, but often introduced unwanted rocky lake bottoms, whereas Leonardo produced outputs that more closely matched the imagined scene in terms of water surface and figure placement. Ultimately, a Leonardo-generated image served as the primary reference, which was then imported into Firefly's Generative Expand interface to extend the frame and add more water texture which, in hindsight, was unnecessary since I developed my own circular wave pattern in the drawing. The opening for surprising or inspiring details from image generators was productive in this process but limited. In the lake image, prompts were crafted narrowly to obtain a specific reference rather than to invite unexpected variations, and no additional useful details emerged from the AI-generated

images. However, I experimented with generating images for one of the undocumented memories, drawing on an approach I had previously tested in a project for another graduate class (Technological Mediations in Visual Culture); in this alternative field image, a circular rock formation around the figures was included in an AI-generated image that would likely have been incorporated had that memory been developed into a drawing. The opening was partial for iteration as both Firefly and Leonardo quickly produced usable references, though many outputs failed to match requests for hair type or camera angle, resulting in an informative session of prompt revision and selection.

An additional, unanticipated finding emerged from the way Firefly handled certain prompts. Requests that included phrases such as “father and young son,” “man and toddler,” “older man and young boy,” or “man and boy” were blocked, suggesting that the model had been trained to flag these word combinations as inappropriate. This content moderation not only constrained the kinds of images that could be generated for deeply personal, familial themes, but also highlighted how broader cultural anxieties and safety protocols are embedded in AI systems in ways that can directly shape, and sometimes limit, their usefulness for artists. In the terms of my methodology, this was a clear instance of the system *withholding* possibility as its refusal to render the prompt foreclosed a line of inquiry outright and, in doing so, made its own limits visible. I want to be careful, however, not to frame these guardrails as mere over-caution. They were established by the model’s engineers to address genuine harms as image generators have in fact been used to produce pornography and child sexual abuse material (as reported in Chapter 4), and these are real dangers that transcend mere anxiety. The encounter therefore holds a productive tension at the heart of the thesis that the same safety architecture that responsibly blocks abuse also withheld my attempt to picture memories of my father, exercising a procedural agency that neither I nor the prompt could override. This is an instance of the boundary-setting that my research objectives sought, here originating in the system rather than the artist.

Analysis

The purpose of the autoethnographic research was to explore the effects of AI image generators on my artistic practice and to engage with the kinds of co-creative processes that students were later invited to undertake in the classroom-based research in Stage 2. By working through the same assignments in two creative cycles, I was able to compare the impact of AI on my creative process

and to assess technical capabilities, limitations, and concerns of this technology in relation to the specific requirements of each assignment.

Creative Process

Reflecting on the impacts of AI image generators on my creative process, this study offered insights into how varying degrees of artistic agency might be maintained or surrendered in projects involving mutually modifying collaborations with AI systems, while also revealing impacts on decision-making and ownership, particularly given that the algorithmic systems and machine learning protocols are not transparent to users. In both cycles, conceptual development began from the same personal themes which led to brainstorming notes and rough sketches; starting from an intimate, situated perspective allowed me to articulate meaningful thematic and compositional decisions grounded in my intentions for the work. In the second cycle, I deliberately used AI image generators in place of the conventional methods used in the first cycle—observational, photographic, and imaginative—which revealed experimental possibilities and limitations of the systems and the ways they could impact both process work and final artworks that responded to the systems outputs. Beginning and ending each step of the autoethnographic study with a creative process grounded in embodied techniques and physical materials kept human and material agency active throughout, rather than ceding to much of the process to the system.

In the first creative cycle, every step of the creative process involved traditional, embodied, physical practices. This initial process opened a renewed sense of discovery in my drawing practice in several ways. First, I opened up to working with unfamiliar materials and themes, stepping outside the approaches that had shaped nearly two decades of professional practice. Second, occupying the role of student after nine years of teaching and a twenty-two-year break from academic enrolment allowed me to adopt a learner's mindset and to appreciate formal drawing instruction from a fresh perspective. Third, the weekly rhythm of showing work to a group of younger artists and to the professor—along with the pressure of deadlines and critiques—introduced forms of accountability and feedback that were rare in my professional practice. Finally, the theme of fatherhood emerged as a thematic throughline during this artistic undertaking, providing a therapeutic outlet as I was dealing with my father's recent cancer diagnosis and sudden decline in health; the creative process provided an opportunity to reflect on memories with my father, my relationship with him, and my own experiences as a father. This emergent thematic focus on fatherhood and the compositional strategies that supported it became an important point

of reference when I revisited the assignments with AI-generated imagery in the second creative cycle. The process of engaging with traditional artistic practices while experimenting with co-creation using AI technology was an integral aspect of the research design meant to explore the agency of both humans and AI systems in the autoethnographic and classroom stages of the study.

Creative decision-making in the first cycle challenged me to consider choices of subject, compositional arrangement, colour, contrast, scale, and so on, and then commit to decisions based on a finite number of available references. Image generators seemed to open the options to endless possibilities but they also, frustratingly, couldn't provide exactly what was being asked which led me to iterative dead ends in which repeated prompt revisions did not yield output results that matched my initial imagined vision or my directions via prompt language. When a limit seemed to be reached, I often found myself settling for imperfect references or referring to details from several AI-generated images for a particular composition. The time and cognitive energy spent revising prompts and filtering outputs offset some of the efficiency gains and, at times, interrupted my sense of connection to the creative act and undermined my enjoyment of the process.

Returning to physical drawing materials and interpreting the computer-generated imagery through embodied mark-making reconnected me with aspects of my practice that felt most closely tied to my intentions. Crucially, this return was not just a copy of the reference images but a second site of co-creation in which the materials exercised their own agency. The soft pastel demanded that I simplify the generator's photographic detail into broader areas of tone; the pencil crayon let me reclaim the fine linear details and textures that the digital images flattened or pixelated; and the tooth of the paper, the building-up, blending and erasing of pigment, and the occasional smudge under my hand, all redirected the screen-based details. The drawing materials, in other words, were not used to merely execute the AI references; they modulated the process in their own way, which is why I treat them as full participants in the distributed agency of the process rather than as passive vehicles for an image decided elsewhere.

My experiences with GenAI in this part of the study sharpened my understanding of how distributed agency complicates claims of authorship and ownership. When certain AI-generated elements proved unexpectedly inspiring, I found myself questioning my reliance on those components, the opaque provenance of the visual ideas they embodied, and how such inspiration sits within longer histories of artistic borrowing, influence, and appropriation. In many respects, using AI outputs as reference resembles earlier practices of working from photographs or observed scenes as external visual material informing an image that is ultimately composed and rendered

through my decisions and embodied marks. However, as elaborated in Chapter 2, GenAI references differ in scale and origin as they are synthesized from large datasets that rely on the labour of unattributed data workers, engineers, and creators, rather than from an identifiable source. In this study, I therefore treat the drawings as human-authored works produced through distributed agency, while recognizing that the provenance and scale of GenAI outputs raise unresolved questions about attribution and ownership.

Technical Process

Assessments of the technical aspects of using image generators in my process work broadly supported the three research openings that AI image generators could provide benefits for customization, ideation, and iteration, while also surfacing important limitations and caveats. As customizable reference tools, image generators such as Firefly opened up possibilities for producing tailored reference materials that met my specific visual research needs for particular details, viewpoints, and angles with limitations. In some cases, the generated images would have been difficult to source otherwise—for example, an overhead view of a table setting with artisanal dishware, which would have required a logistically demanding photoshoot, or visualizations of undocumented memories and alternate viewpoints on archival photographs. In other cases, such as the aerial view of rural towns, publicly available online tools like Google Maps would have quickly satisfied the reference need. The model's constraints became evident through a series of divergent and sometimes incoherent outputs, necessitating extensive iterative prompting that occasionally failed to yield the intended result. Firefly's inaccuracies were most pronounced when requests required high levels of specificity or challenged established training conventions, and alternative image generators sometimes produced superior outputs for the same request.

As co-creative agents in ideation experimentation, image generators offered unexpected and occasionally unusual imagery that sparked new conceptual or compositional options. This generative unpredictability was productive when openness to surprise was desired but became frustrating when greater control over specific outcomes was necessary. More precise results were obtained as my prompt-crafting skills improved and when prompt-enhancement tools were used, suggesting that effective collaboration with AI required its own set of technical and linguistic competencies.

AI accelerated the generation of visual research material and enabled quick iterative variations compared to traditional visual research methods. However, this acceleration did not

expand possibilities in a simple or linear way. The same systems that produced more variations also imposed their own patterns, defaults, and omissions, so that speed came entwined with narrowings shaped by the model's training and constraints. Any perceived efficiency gains were moderated by the time required to refine prompts, evaluate large sets of outputs, and edit or combine images to achieve sufficiently acceptable references for my intentions. This pattern was a common observation to varying degrees across different image generators that improved with subsequent model upgrades and increased familiarity but did not eliminate the need for ongoing human judgment and adjustment. The desire for efficiency in artistic practices also raises longstanding questions and concerns within modern political discourses with varying perspectives in the arts community.

Overall, AI image generators were helpful for some of my visual research needs but not consistently better than existing tools or sources; their usefulness depended on the task at hand. Rather than assuming that AI image generation simply joins the existing family of reference practices, this study treats it, as mentioned in Chapter 4, as one contested option whose particular affordances, narrowings, and ethical conditions must be weighed against those of other methods. I found AI-generated images useful as resources for visualizing undocumented moments and perspectives for which no existing images are available and as supports when sites or collections are difficult to access. Situating the technology in this lineage matters for the thesis, because it reframes the question from whether reference tools belong in drawing—they always have—to which of their affordances and limitations are particular to GenAI. This is not meant to suggest that students shouldn't have foundational training in these more demanding processes; as stated in my thesis, my research seeks potential openings for more advanced art practices in which fundamental knowledge of artistic processes is vital to co-creation with machines. Moreover, prompting was itself part of the creative process and the need for effective prompt-crafting and revising showed that working with AI was not simply automatic production; it required experimentation, critical selection, and knowledge of visual problem-solving.

Image Generator Features and Comparison

In terms of performance, the process of working with Adobe Firefly provided, in relation to my aims and purpose, a mix of efficient customization and iteration frustration. The program was similar to other image generators as it quickly produced four images from a single text prompt. Firefly had

useful features to ‘Rerun’ prompts if none of the four images met requirements and to ‘Generate Similar’ images of one of the four outputs if it was close but further variations were needed. Like other current AI image generators, Firefly image results often did not meet my requirements or match my prompt details, regularly substituting conventional details when it couldn’t meet a specific request, and generating distorted details. I eventually got more useful images after repeated prompt revisions and the iterative process became shorter as my prompt-crafting abilities improved.

Advantages and disadvantages of the Firefly system were observed in relation to other AI image generators that I have used. For the autoethnographic research of my thesis, I used the free version of the Leonardo AI image generator in some instances that are highlighted in the process book, but I mostly relied on Firefly. In 2022, I tried this technology for the first time using MidJourney; I played around with the system a handful of times and discovered the flashy but limited capabilities of the early version of this system. When I learned that my institutional Microsoft subscription included access to Co-Pilot, I investigated the image generator built into the chatbot a few times in 2023 and 2024 before using it in the winter of 2025 for class assignments on topics related to GenAI. Subsequent to my study, I experimented with the image generators built into Google’s Gemini (Banana) and OpenAI’s ChatGPT (GPT Image which has replaced DALL-E). I also worked with Higgsfield.ai. Both Higgsfield and Leonardo are examples of dedicated, web-based image generator interfaces that allow users to choose from a variety of models including Banana, GPT Image, and approximately a dozen others. Each model provided similar openings and narrowings for visual research with varied stylistic results, setting options, and prompt-responsiveness.

I found Firefly to be the most user-friendly interface with a dedicated workspace, folder for past results, and customization settings for Style, Composition, Camera Angle and Lighting with sliders that allow you to adjust the intensity of the features’ impacts on the outputs. Midjourney had the most convoluted interface built within Discord and little in the way of adjustable customization options. Gemini, Chat-GPT, and Copilot image generation were embedded in their chatbot—thus not a dedicated workspace—with only a few style features and no adjustable settings. Leonardo and Higgsfield offered dedicated image generation workflows, a few style and customization settings and prompt-enhancement features.

Firefly’s Generative Expand and Generative Fill proved to be valuable features that allowed for more precise manipulation of the outputs; however, there were limitations as Generative

Expand often created distorted fisheye-lens effects and blurriness in expanded areas of the image—which were unwanted by me—while Generative Fill was unreliable for providing usable elements and didn't work in expanded areas. At the time of my study, these capabilities were unique to Firefly. By 2026, the technology—often referred to generally as 'Inpainting' (filling in) and 'Outpainting' (expanding)—has been integrated into almost every major generative AI platform.

Meanwhile, at the time of the study, other AI image generator models consistently produced what I perceived—and what most users agreed—were more accurate and refined image results, and offered "natural language revision" capabilities compared to Firefly that allowed users to "talk back" to the AI and ask for changes (i.e. "more of this", "less of that"). Firefly subsequently improved in quality and accuracy and added editing abilities using natural language. Firefly has plenty of other unique features that were not explored within the scope of this project including the ability to add graphic design elements and take images directly into Photoshop.

Connections to Theoretical Framework

The autoethnographic study demonstrated that integrating AI image generation into the process work of embodied drawing practices was not simply a technical experiment, but a site of a/r/tographic inquiry in which cycles of making and researching overlapped and fed back into one another, while also informing my emerging approach to teaching with this technology. My experience with Firefly opened possibilities for AI-generated images as unpredictable, interpretive materials that invited refusal, revision, collage, and reworking rather than straightforward adoption. Attending to this tension becomes part of my method for supporting exploratory and critical drawing practices. A/r/tography, as articulated by Irwin and others, (Irwin & De Cosson, 2004) invites a process of inquiry and, in my case, the process book, with its documentation of prompts, sketches, revisions, and reflections, traced how personal expression was not discovered in a single moment but gradually assembled through sustained attention and critical contemplation.

Stage 1 of the research put into action the theoretical approaches of the research design to be used within the a/r/tographic methodology. Constructivist learning theory further shaped the framework of this study by positioning knowledge as something built through active engagement with AI systems rather than passively received from them. At the same time, Entanglement Art Education theory helped explain why AI should not be treated as a neutral instrument or mere extension of conventional processes. Systems such as Firefly participated in the creative process

of the study by shaping what was visible, thinkable, and selectable; they suggested certain forms and limited others, influencing decision-making even when their outputs were ultimately refused. The research therefore positioned AI as one actor within a network of human and non-human collaborators, rather than as an external tool under human control (Leonard, 2020). Working with image generators involved testing and revising prompts, evaluating outputs, and responding through drawing, writing, and discussion, so that understanding of both the tools and the artistic problems emerged through an iterative autoethnographic practice that informed the pedagogical engagement with students in the classroom-based research.

The inquiry also resonated with Jansen and Sklar's (2021) work on co-creative drawing, which documents artists' preference for physical media while acknowledging that AI systems can "provoke unexpected compositional directions" during early sketch phases. My own work with Firefly echoed these findings: AI was most valuable when used to generate surprising arrangements, hybrid forms, or unlikely details that could then be reinterpreted through analog drawing. However, my study also highlighted how quickly such provocations can become entangled with questions of authorship, originality, and ethical provenance when AI outputs move from provisional sketches into more resolved artworks. This approach to co-creation signals a potentially different orientation to authorship as artists consider, document, and defend their processes and understanding of GenAI's role.

Finally, the classroom implications of my autoethnographic work were informed by Gjorgjieski's (2024) research on co-creative activities with AI, which emphasized the need to foreground students' intentionality and creative agency when engaging with GenAI systems which, in posthumanist critiques, are put into question with this technology even more than with previous technologies that have been incorporated into artistic practices. As my study emphasizes, students should be aware of how the system conditions and limits their agency and how they may need to push the system's limitations and constraints to exert their relative agency. Approaching AI as a potential collaborator rather than a replacement for artistic development requires practices that make the technology's interventions visible and open to critique. In this study, the documentation of intentions, revisions, iterations, and responses intended to make my involvement more transparent and supported a shift away from passive acceptance of outputs toward deliberate, conceptually grounded decision-making. In this way, the project supported, for me, a form of critical co-creation that valued experimentation and treated AI as part of an evolving artistic conversation rather than as a final authority. This position allowed the research to

contribute not only to drawing pedagogy, but also to broader conversations about agency in AI-integrated art practices, and set the stage for understanding students' refusals in Stage 2 as informed, ethical, and pedagogically meaningful responses rather than mere resistance to innovation.

Returning to the central research question, this stage of the research offered provisional insights from explorations within my own practice that co-creative encounters with AI image generators did affect the creative and technical opportunities of my visual research, but unevenly and conditionally. They opened genuine possibilities for customized, hard-to-source references and for unexpected ideation, while just as often narrowing—through unpredictability and refusal—in ways that returned creative authority to me and to my materials. The opportunities were real but never straightforward; they had to be negotiated, prompt by prompt and mark by mark, within a process in which agency remained distributed across myself, the system, and the art materials through which every reference was finally remade. It is this situated, ambivalent account—rather than either endorsement or dismissal—that the autoethnographic stage contributes to the thesis, and that frames the approach I took the classroom research in Stage 2.

Chapter 6: Classroom-Based Study (Stage 2)

In this chapter, the results of the second and final stage of the mixed-methods research study are presented. Stage 2 continued to be guided by an a/r/tographic methodology that integrated my overlapping roles as artist, researcher, and teacher. The creative cycles in the autoethnographic inquiry in Stage 1 generated key insights that informed the pedagogical approach taken with the student participants in Stage 2 of this research study. While my autoethnographic research involved three assignments, the classroom-based research focused on the process of developing one assignment and was designed to investigate how AI image generators might intersect with advanced—rather than foundational—drawing practices in a post-secondary context. In this assignment, all students were required to complete a refined drawing from researched photographic references, and, for this unit only, they were given the option to incorporate AI-generated imagery alongside conventional visual research methods. This structure created a shared framework within which students could choose whether and how to engage with AI systems, allowing the study to examine their decision-making, creative processes, and responses to AI image generation in relation to the broader aims of the course.

Although the Stage 1 findings supported potential openings in creative processes—that AI image generators can provide customizable reference materials, generate thought-provoking visual ideas and compositions, and support concept iteration—my intention to engage students in a similar process did not unfold as planned, as this chapter will show. Nevertheless, the students' reactions to the technology and their creative processes yielded valuable data for the study. This divergence between my planned integration of AI image generators and the realities of the classroom became a significant finding, highlighting the complexities of introducing emerging technologies into advanced drawing pedagogy.

Following an overview of the classroom-based context and research design, findings are reported from the pre-research surveys, the in-class research, and the post-research surveys. The chapter concludes by interpreting these findings and connecting them to the autoethnographic inquiry in Stage 1. Building on the openings, narrowings, and relational agency introduced in Chapters 2 and 3, this chapter reads the classroom findings not only for how students might have used AI systems, but also for how their refusals and cautious engagements become part of the same relational field.

Overview

The classroom-based research took place in a studio classroom at Durham College in a third-year drawing course, DRAW 5301 Drawing V (Explorative), in the Fine Arts diploma program. There were 24 students enrolled across two sections of 12 students each with 18 participating in this study. The two-hour studio classes were scheduled on Monday afternoons in the fall of 2025, and I was the sole faculty member for the course, having taught it twice previously in 2022 and 2023. Since students in this class had already completed two years of foundational visual arts courses, the goal of the research was not to replace basic skill-building with AI, but rather to explore how AI might intersect with more conceptually informed, upper-year work.

Course Description (from Course Outline)

Drawing V (Explorative) is designed to provide students with an opportunity to examine the impact of drawing on their art practice. Course work will encourage students to push beyond the expected limitations of drawing as an art-making medium. The boundary between line, texture and substrate will be blurred, as students explore drawing in context to the multiplicity of spaces in which they live and make art.

Assignments

Goals provided to the students for DRAW 5301 Drawing V (Explorative) course work assignments:

1. Material World: The first assignment asked students to investigate everyday objects and surfaces as starting points for conceptually developed drawing practices. Students collected meaningful belongings, discarded materials, or overlooked debris and considered their symbolic associations and potential narratives, including themes such as personal stories, consumer culture, recycling, and sustainability. Process-based experimentation with unconventional media was required along with a final resolved drawing to demonstrate a visually sophisticated and conceptually thoughtful resolution for an advanced understanding of composition, line quality, and the expressive potential of materials.
2. Altered Identity: This assignment challenged students to push drawing beyond traditional boundaries by integrating it with photography, performance, video, and/or sculptural installation. Using drawing and photos of themself as a starting point, students explored and challenged the depiction of their own identity within a larger socio-cultural framework including family, community, nationality, or gender. Students used photo/sketches of themself as catalysts for creating a final performance, video, or installation that addressed personal and cultural narratives within self-representation.

3. Space & Place: In the final assignment, students investigated space and place through visual research, collage techniques, and experimental compositional strategies in drawing. As part of the visual research, students could optionally use digital tools, including Adobe Photoshop for digital compositing and Adobe Firefly as an AI image generator; ethical and practical issues surrounding AI image generators were explicitly addressed during class discussions. Use of these technologies was permitted only for the visual research component of the process work, not for the final drawing.

Methodology

The curriculum for DRAW 5301 was similar in many ways to the course syllabus for VISA 3080—the class that was part of my course work in Stage 1—creating clear parallels between the autoethnographic process in Stage 1 and the classroom-based research, and course expectations, in Stage 2. In both courses, three self-directed projects encouraged exploration of traditional and unconventional drawing materials and techniques, using both observational and abstract approaches to developing student-determined, conceptual visual solutions. Thematic alignments between the assignments further reinforced these connections: Recycle aligned with Material World, Mapping with Space & Place, and Identity Remix with Altered Identity. These parallels made it possible to compare my own practice in Stage 1 and with students' practices in Stage 2.

For each of the three assignments in DRAW 5301, students followed a consistent four-week creative cycle that structured their development and documentation of work. Over the duration of each unit, they produced ideation notes outlining their conceptual intentions, gathered visual research artifacts, created rough sketches, completed a final artwork, and compiled these materials into a provided presentation slideshow template that functioned as process book (like the one that I used to document my work in Stage 1). Each unit began with an introductory class that included presentations, assignment instructions, and short in-class exercises related to the thematic (as determined by each student) and technical focus of the assignment, followed by two weeks of in-class studio work and individual consultation sessions with the instructor. In the last class of each unit, students presented their final artworks and Image Books for an in-class critique.

Students completed the assignments using a variety of drawing materials and multi-media exhibition formats, of which they were encouraged to choose which media best suited their self-chosen conceptual intentions. Only the third assignment, Space & Place, was included in the formal research study. In the first two assignments, students conducted visual research using conventional methods, such as collecting objects for observational drawing and searching for

photographic references, whereas for the final assignment they were required to create a collage or composite from photographic references and were permitted, if they chose, to incorporate AI-generated images as part of this visual research process. This design allowed the study to compare students' established research habits with their responses to the introduction of AI image generators within a familiar assignment structure.

The course outline for DRAW 5301 included the following institutionally-authored AI policy statement:

> The use of generative AI is PERMITTED IN SPECIFIC components of this course. Please refer to faculty directives. Review the course outline/assignment specifications closely to determine where you are permitted to use generative AI. It is your responsibility, as the student, to be clear on when, where, and how the use of generative AI is permitted. In all submissions in which you use generative AI, you must cite its usage. Failing to cite the use of generative AI is academic misconduct. In all other aspects of your work, the use of generative AI will be considered a breach of academic integrity and Academic Policy ACAD-101 Academic Integrity will be applied. If you are uncertain if you have used GenAI and/or cited appropriately, please speak with the library or your professor. (See course outline in Appendix)

Participation

As outlined in Chapter 3, participants encountered this study from within a Fine Art program and a wider context of public and arts-community debate about GenAI. Of the 24 students enrolled in DRAW 5301, 18 consented to participate in the study. In total, 16 pre-research surveys were collected, 18 post-research surveys were completed, and 18 consent forms were received. The discrepancy between the number of pre- and post-research surveys reflects student absences during the initial data collection session. The surveys were encoded with a numbering from P1 to P24 for each participant in place of names. The administrator maintained a list of participants names that correlated to the encoded participants numbers for the pre-research and post-research surveys. The surveys and list of consenting participants was only given to me after final grades were submitted at the end of the semester. Since some students chose not to participate in the study and returned blank surveys to the administrator, the participant numbering exceeds the actual number of participants.

Consent forms were distributed along with the Pre-Research Surveys to confirm their participation in this study and request permission to include their survey remarks or coursework in the classroom research findings of the thesis. The estimated time for completion of the pre-survey and consent form was 15-20 minutes, but the process took 45 minutes in both classes. A fellow faculty member who administered these forms described the scene with the first group as having "heated discussion between the students" about AI. In accordance with ethics protocols, survey and consent data were not accessible to me until after final grades had been submitted. *See Surveys and Consent Forms in Appendix*.

Data Collection and Instruments

Data for this classroom-based study were generated through three interrelated instruments: a Pre-Research Survey, classroom-based research conducted throughout the Space & Place unit, and a Post-Research Survey. Together, these instruments form a mixed-methods design intended to capture both students' self-reported experiences and attitudes towards AI image generators and their observable engagement with these systems in the context of a visual arts assignment. The surveys provided opportunities for participants to document their prior experience with AI, shifts in their perceptions over the course of the unit, and their reflections on the role of generative AI in their creative research processes. The classroom research, in turn, produced qualitative data on how students actually worked with (or chose not to work with) AI image generators, including how they navigated visual research, discussed their decision-making, and responded to peer and instructor feedback.

The Pre-Research Survey was administered during the first class of the Space & Place unit and was designed to gather information about students' previous experience with AI and AI image generators leading up to this study. The instrument was divided into three sections. Section 1 combined multiple-choice and open-ended questions to explore participants' prior experience with a range of generative AI content systems—including text, image, audio, video, and 3D—and then specifically with AI image generators. Section 2 presented a series of Likert scale items that probed participants' perceptions of, and attitudes toward, digital tools and AI image generators in artmaking prior to the study. Section 3 comprised open-ended prompts inviting students to elaborate on the potential impact of AI image generators on creative research and processes and to share any additional experiences, feelings, or perceptions not captured by earlier questions.

The classroom research component unfolded across the duration of the Space & Place unit and centred on the assignment that anchored this study. Data in this part of the research were generated through the introduction of the assignment and study, observation of students' week-to-week development of their drawings, class discussions, and one-on-one progress meetings. Throughout the unit, I documented students' evolving uses of visual research materials (including AI-generated images), their questions and concerns, and the ways they articulated their decision-making in relation to both AI and non-AI sources. Field notes from class discussions, informal reflections written after individual progress meetings, and observations recorded during final critique sessions together provided a qualitative account of how students responded to generative AI systems, negotiated it as option within their creative process, and articulated the perceived value, limitations, or risks of these systems.

The Post-Research Survey was administered during the final class of the Space & Place unit and was designed to gather information about participants' experiences with visual research and any potential use of AI and AI image generators during the study, as well as any shifts in their perspectives. The instrument was divided into four sections. Section 1 combined multiple-choice and open-ended questions to determine if and how participants used generative AI content systems—including text, image, and other modalities—during the assignment, and, where applicable, which specific image generators they used and how these systems were integrated into their visual research. An open-ended item also invited participants who relied on other visual research sources to elaborate on why they chose those methods over AI technologies. Section 2 asked students to describe any visual research materials they consulted (AI-generated or otherwise) and to explain how these sources informed the development of their final drawing. Section 3 consisted of a series of Likert scale items that explored participants' perceptions of, and learning from, using generative AI in their visual research for this assignment. Section 4 provided open-ended prompts inviting students to elaborate on their responses from Sections 1–3 or to share additional perceptions about AI image generation technologies that were not addressed in earlier questions.

The findings presented in the following sections are organized to mirror this three-part design. Pre- and Post-Research Survey results are reported according to the internal section structure of each instrument, while the classroom research data are included in between survey findings to contextualize survey responses with concrete classroom moments, student behaviours, and excerpts from in-class discourse.

Data Analysis

Survey data and classroom-based observations were analyzed using a combination of descriptive summaries and informal thematic analysis. For the Pre- and Post-Research Surveys, which were fill out by the participants by hand on printed copies, I began by calculating simple frequency counts for the multiple-choice and Likert-scale items to see how often students reported using different systems, how they rated the usefulness of AI image generators, and how their attitudes shifted (or did not shift) over the unit. These descriptive patterns provided a broad sense of where the cohort stood in relation to AI at the beginning and end of the assignment. Open-ended survey responses and classroom research materials (field notes, consultation reflections, and critique observations) were then read and coded in a more narrative, theme-oriented way. I first grouped comments according to broad questions that came from the earlier chapters of the thesis—for example, whether students treated AI systems as part of their visual research, how they talked about agency, and how they described ethical or pedagogical concerns. This meant that some of the initial categories drew directly on the literature and methodology: openings and narrowings in visual research, distributed agency, care for craft, and ethical resistance to GenAI systems.

At the same time, the coding remained inductive. As I read and re-read the responses, I noted phrases and patterns that did not fit neatly within those prior categories, such as the intensity of students' refusal, their fear that AI would "steal" their futures, their emphasis on environmental harm, and their description of non-use as an ethical stance. These recurring ideas were treated as emergent themes rather than forced into existing frames. In practice, this meant that some analytic labels came from the research design and literature (for example, "care for craft" or "critical literacy"), while others arose from the students' own language (for example, "AI slop," "slap in the face," or "never using AI"). The Findings section that follows reflects this mixed approach: it retains the theoretical through-line of the thesis while acknowledging where students' perspectives complicated, redirected, or resisted my initial expectations.

Findings: Surveys & Classroom Research

Pre-Research Surveys

This section presents findings from the Pre-Research Survey administered at the beginning of the Space & Place unit. It examines how students positioned themselves in relation to generative AI systems prior to engaging with the classroom activities and assignment at the centre of this study.

Pre-Research Survey – Section 1: Experience with Generative AI and Image Generators

This subsection reports students' prior experience with generative AI systems in general and AI image generators in particular, as captured in Section 1 of the Pre-Research Survey. It focuses on which types of generative AI systems participants had used before the study and how familiar they were with AI image generation specifically.

Pre-survey responses indicated that most participants had at least some prior exposure to generative AI systems, particularly text-based systems, while relatively few reported sustained or expert use. Out of 16 respondents, 13 students acknowledged having had some intentional experience with generative AI, with nine having used text-to-text systems and nine having tried text-to-image systems, typically in casual ways. Audio, video, and 3D generators were rarely used. In relation to AI image generators specifically, two students described extensive experience with multiple platforms, seven reported having used image generators a "little bit" (as per survey language), and seven stated that they had never used them.

Students' brief descriptions of previous generative AI use underscored this pattern of mostly exploratory engagement. Examples included "used text-based for odd problems" (Participant 10), "only use it if I need new ideas" (P06), and "using these systems very briefly over 5 years ago before I knew that they steal from artists and are bad for the environment" (P08). A few students reported using AI image generators once but not liking the result or choosing not to return to them. Among those who reported more extensive experience with image generators, one student cited "curiosity" and used them "for concept characters" (P09), while another stated that they only used them for quick jokes among friends.

When asked if they had used this technology for ideation, reference images, and/or other purposes, some students reported that they had tried it once but did not like the results, while most indicated that they had not used AI in this way. One student, for instance, wrote: "No, I prefer coming up with original ideas and accessing resources I already have available, such as the human

mind" (P12). Taken together, these responses suggest that, prior to the unit, most students were aware of generative AI and had experimented with it to some degree, but few had integrated it meaningfully into their creative research practices.

Pre-Research Survey – Section 2: Perceptions and Attitudes

This subsection draws on Section 2 of the Pre-Research Survey, which used Likert scale items to explore students' initial perceptions of, and attitudes toward, digital tools and AI image generators in artmaking. Here, the emphasis is on how participants evaluated the usefulness, appropriateness, and creative potential of AI image generators before the unit began.

Analysis of Section 2 revealed a dominant theme of ethical resistance toward generative AI in creative practice, even among students who acknowledged some potential usefulness for convenience or personal, non-academic tasks. Many participants described avoiding AI due to concerns about energy consumption, unsustainability, and environmental damage. Several explicitly rejected AI on the grounds of the unauthorized use of artists' work in model training datasets, with one student stating that systems "steal and produce content off the backs of real, hardworking artist[s]" and "take away from the beauty of creating yourself" (P18). Others highlighted worries about misuse for deepfakes, revenge porn, and other forms of gendered violence, and framed their refusal as a matter of moral responsibility rather than mere preference. As one student put it: "Most of my choice not to use AI is for ethical reasons; the environmental concerns and impacts, the risks and dangers when it comes to fake news/celebrity deepfakes, etc." (P13).

Likert-scale items reinforced this generally critical stance. Overall, students reported mixed comfort with new digital tools, with responses to "I am comfortable using new digital tools or technologies in my art practice" spread across the scale (3 strongly disagree, 3 disagree, 5 neutral, 2 agree, 2 strongly agree). The majority of respondents disagreed or strongly disagreed (10 out of 15), or were neutral (4 responses), that AI image generators are useful for artists and designers; similar response patterns appeared for the statement that AI-generated images can inspire new creative ideas. Twelve of 15 strongly agreed that AI could reduce originality or interfere with creative processes using other materials. When asked if they would like to learn more about how AI can be used in the creative process, 12 disagreed or strongly disagreed. Despite this reported lack of interest in using the technology, 13 participants agreed or strongly agreed that they were aware of possible biases, stereotypes, or limitations in AI-generated images, and only 3 students

acknowledged not understanding how image generators were built and how they operate. These patterns suggest a cohort that is both critically informed and largely resistant to AI's role in artmaking at the outset of the study.

Pre-Research Survey – Section 3: Open-Ended Questions

This subsection analyses the open-ended responses from Section 3 of the Pre-Research Survey, where students were invited to elaborate on how they imagined AI image generators might impact creative research and processes. The focus here is on the nuances of students' expectations, concerns, and speculative thinking that are not fully captured by the earlier closed-response items.

Responses to the open-ended questions revealed a strong critical dimension to students' positions on generative AI, with many articulating frustration, annoyance, fear, anger, and grief about the future of art and work. Some students claimed AI-generated art has "no soul" (P16) or "is a deplorable thing to do" (P08), positioning it as fundamentally incompatible with their identity as artists. They described feeling "scared, confused, angry, and anxious about the use of AI and its overwhelmingly negative impact on real artists lives and careers" (P18), with one student stating, "I am mostly upset that I never got to live in a world where a traditional art career is viable" (P17). Several expressed dismay that "rather than gathering materials, practicing composition, testing material/technology like a camera, you just have to type (your idea) in" (P01), while another proclaimed that "being an 'ARTIST' will be meaningless" (P16). One student commented, "I think AI will impact how important creating with your own hands is and the work that goes into creating something yourself," and added, "I think it will make people who see art as some trivial, unimportant and not real career further support their stance" (P18). Another expressed their opposition in blunt terms: "Fuck AI. Not worth having exist" (P10), signaling not only ethical disagreement but also a refusal to grant the technology artistic or even existential legitimacy.

Alongside this dominant theme of rejection, a smaller set of responses reflected more pragmatic or cautiously positive stances, emphasizing AI's potential as a tool rather than a replacement for artistic labour. One student argued that "you'd be an idiot not to utilize AI tools in 2025" (P09), stressing what they perceived as the inevitability of AI in contemporary life, while another described AI as "wonderful" when used as a learning aid or personal assistant but not as a substitute for human creativity (P14). These perspectives illustrate that within an overall climate of skepticism, some students were open to AI's potential benefits, even if the specific conditions under which they would accept such use were not fully articulated.

One student's extended comment captured the intensity of critical feeling towards GenAI entering the study:

> I am entirely against using generative AI for any purpose, and quite frankly anyone who uses it loses my respect. It makes me incredibly angry that this technology is being practically shoved down our throats; it seems that every new piece of technology has AI in it nowadays. I am scared that generative AI will steal my future from me, both by taking job opportunities from me, and by destroying the planet. My hope is that generative AI will soon fall into obsolescence and will stop being used forever. (P08)

Another student offered a very cautiously optimistic response to a question about the potential for improved image generator options for artists: "I understand and can sympathize with the general concept behind AI. I do understand conceptually why someone might want to create an image generator, but the actual application of AI into our lives makes me question if an ethical version of what I know of AI is ever possible. If such a generator was to be created and used ethically, I believe that it could be an interesting tool for artists, however I am extremely doubtful that it's possible" (P17).

These comments underscore the tension between some students' imaginative openness to alternative AI futures and their profound mistrust of current implementations.

Classroom Research

This section presents findings from the classroom research conducted throughout the Space & Place unit. It is grounded in observations of students' week-to-week development of their assignments, class discussions, one-on-one progress meetings, and final critique sessions. To situate how GenAI was to be integrated within the classroom study, this section traces the Space & Place unit from the introductory class through to the final critique.

The first class began with a presentation on the unit theme, including a distinction between space as location and place as connection, followed by a review of technical principles for creating the illusion of space on a two-dimensional surface that built on concepts introduced in the first semester Drawing I class. I also highlighted artists' diverse strategies for rendering or distorting space in their work and then led students through two in-class sketch exercises. These activities were designed both to revisit core drawing concepts and to set up a shared context for exploring how different kinds of visual references—including AI-generated imagery—might inform students' work.

In the first exercise, the class collaboratively developed keywords by visualizing a childhood memory and responding to prompts about place, memory, atmosphere, perspective, and focal points. Using collectively sourced keywords, I demonstrated an image search in Adobe's stock image program, and the class selected a stock photograph from which each student produced a quick sketch to render the depicted space; all students sketched from the same reference image. Students engaged in the first part of the exercise with a lively discussion around sharing keywords based on memories but were less engaged as we revised our memory-based prompt several times in response to stock-image search results before choosing an image that sufficed—but did not exactly excite the group. Although imaginative elements and expressive mark-making were permitted, the exercise emphasized an accurate depiction of the photo, and the range of resulting sketches illustrated how different interpretations can emerge from a single image source.

In the second exercise, the same keyword-based process was extended to AI image generation using Adobe Firefly with an overview of how to access this program through their Adobe Creative Cloud account and a demonstration of its interface and fundamental capabilities. After expanding the prompt based on the group's initial keywords to make use of Firefly's more robust query system compared to Adobe Stock that allows for longer, natural language prompting, I demonstrated the program's text-to-image generation capabilities, which elicited a similarly critical reaction to the outputs as the earlier stock images. Class discussion highlighted that both stock photographs and AI-generated images provided visual material loosely aligned with the prompts and useful for realistic drawing, yet they lacked the idiosyncratic qualities of students' personal memories and experiences. We briefly discussed the default style of other AI image generator models compared to Firefly, which excels at predictively 'simulating' clean, professionally shot photography—likely because its dataset is grounded in Adobe's stock image library. In terms of brainstorming keywords for prompting, we acknowledged how prompt-crafting for generative AI systems is situated within longstanding ideation practices in the visual arts and debated how the process of developing prompts for AI-generated images compared with other image search processes, including commonly used resources like Google and Pinterest that provide extensive but equally impersonal visual references. Students agreed that it was their role to bring a personal approach to the process through story and style, whether they used personal image archives or publicly available options.

Following the exercises, I introduced the requirements for the assignment, which included brainstorming notes, visual research, and collage/compositing for their process work, and a final resolved drawing response to the researched references using physical drawing materials. I spoke directly with students about my intentions for this classroom-based AI-related inquiry, the reasons for integrating AI only within drawing process work and not for final creative outputs, and how their participation could inform both artistic and pedagogical practices. Unaware at that point of their critiques in the initial survey, I shared my cautious optimism about AI's capabilities for visual research alongside my apprehensions about its ethical and ecological impacts. I acknowledged that students who refused to use AI image generators would not be penalized but suggested that it might still be valuable to know what the system can do, to become familiar with it, and to potentially contribute to discussions about how to make it more ethical if they observed any benefits in their own practice.

During the subsequent process-work class, it became clear that my research goal of observing students' use of AI image generators for visual research would not unfold as anticipated. None of the students presented AI-generated images or even mentioned the technology when sharing their reference materials during in-class consultations. After I encouraged them again to consider experimenting with Adobe Firefly "for the sake of comparison," one student brought three AI-generated images to the following consultation session alongside Adobe Stock images. Overall, the classroom research data revealed a strong pattern of resistance to AI image generators, as most students either actively rejected the technology or expressed only limited curiosity that did not translate into sustained experimentation.

My in-class discussions with the student who used Firefly revealed ambivalence toward the technology. He acknowledged the value of generating images specific to his need for imagery related to the aesthetics of 1980s arcades and expressed frustration with inaccurate results from prompts, while also recognizing that increased practice resulted in improved outputs. The student found equally useful reference images from Adobe Stock and Google image search, and one of his required collages was a digitally composited amalgam of mostly stock images with one AI-generated image. Conversations about this collage confirmed that he viewed photos from stock image sites, Google image search, and AI-generated images as similar kinds of resources. In the end, the collage that included AI-generated arcade imagery was not used as reference for his final drawing response.

Later, in reviewing process work submissions, I found that two other students included AI-generated images in their visual research, but they did not integrate these images into their collages nor produce any drawing responses from them. These students did not bring the AI images up during our consultations, nor did they include any explicit reflections on them in their process documentation. Their selective, almost hidden use of AI suggested a curiosity that remained tentative and unarticulated in classroom discourse. Overall, the prevalence of reference images attained from web search, such as Google or Adobe Stock, suggested that the students in this study view these as acceptable visual research options while AI-generated are not.

Across these observations, the majority of direct conversations with students and commentary in class revealed that most were fundamentally opposed to AI because of what they perceived it to stand for: the use of training datasets built on unconsented, "stolen" material, the undervaluing of creativity, the loss of jobs, and detrimental environmental impacts, among other concerns they had already articulated in the pre-survey. No matter what possible benefits this technology might have offered—for example, in relation to my own exploratory use of the system or the targeted reference needs of specific students—they were not interested in adopting it for their own visual research. A small number of students expressed curiosity about what AI might offer but not enough to explore it in depth, preferring visual research methods and resources with which they were already familiar. These classroom-based findings therefore align closely with the survey data, showing that students' ethical and affective resistance to AI image generators significantly constrained their uptake of the technology in practice.

Post-Research Surveys

This section reports findings from the Post-Research Survey administered at the end of the Space & Place unit. It examines how students described their use (or non-use) of AI systems in the assignment, their perceptions of learning in the visual research process, and any shifts in attitudes compared to the start of the study.

Post-Research Survey – Section 1: Experience with AI Image Generators

This subsection draws on Section 1 of the Post-Research Survey, which asked students to indicate whether and how they used AI image generators or other generative AI systems during the assignment. It focuses on patterns of system selection or avoidance, frequency and modes of use

(if any), and reasons some students chose not to engage with AI technologies for their visual research.

Post-research surveys confirmed that very few participants reported using generative AI in their assignments, with only 2 of the 18 participants reporting any use of these systems in their process work. Of these two, one student used an AI image generator, while the other used a chatbot "for brainstorming titles but didn't use any it suggested" (P14). In their responses, students reiterated the reasons conveyed in the pre-research survey for choosing not to use AI for any part of this assignment, describing it as "against their moral compass" (P12), citing "ethical and environmental concerns surrounding the use of AI" (P18), "possible threat to the employment of artists" (P19), or objecting to "the infringement on intellectual property" (P08). Some commented that using AI-generated reference images "feels like cheating" or even "littering" (P01), that it was simply not "necessary" (P17), that it "would stifle my creative capability by using a much easier alternative" (P19), or that they "prefer to use images I have found myself" (P04), while others stated they "just didn't want to" (P15).

The one student who used an AI image generator reported that they used it "to generate some images for reference not to be included in the project" (P23), relying instead on Adobe Stock and Google Images for the collage itself. Nevertheless, this student agreed that using AI image generators enhanced their ability to access visual references; increased their comfort with prompting, critiquing, and modifying AI-generated images; helped them develop their drawing skills; acted as a helpful 'collaborative' system in the ideation process; provided a time- and labour-saving advantage for this project; and would be something they would consider using again for visual research in future artistic work. They noted that "you really need to watch your prompts" and expressed unease about "the idea of AI as original art," signaling both a pragmatic appreciation of the system and ongoing conceptual reservations. This combination of functional usefulness and conceptual unease reflects the ambivalent stance that also appeared in classroom-based observations.

Students from both classes reported drawing primarily on personal and online image sources for visual research (one survey response explicitly acknowledged the AI technology embedded in online search systems). Personal photo archives were used 13 times and online sources 14 times, with some students using both and others relying on just one type. Among online sources, students listed Google Image Search (6), Pinterest (6), stock image sites (3), public domain archives (3), social media (2), and video game screenshots (1), alongside limited use of

print publications (3). For the collage requirement, hand-crafted cut-and-paste techniques were used in 4 instances, while digital compositing in Photoshop or similar applications was used in 16 instances.

When asked about the usefulness of visual research for their final drawings, many students emphasized the central role of reference materials in shaping composition, colour, and spatial structure. Several respondents stated that they "drew straight from [the] reference collage" (P20) and found visual references "very useful for figuring out composition and colour" (P08), "for proportions" (P14), or because they "helped me visualize what I wanted my drawing to be and gave me good perspective" (P06), with one student noting that "specific angles are hard to draw without reference" (P17). The student who used video games as reference sources explained that these were "very useful as I created the spaces myself in the video games," which meant they were "the exact shapes and colours I wanted the space to be" and allowed precise control over camera position and point of view to match the desired perspective (P12). When asked whether they drew directly from references for some or most details and whether they added elements not present in the images, many students reported that they "drew directly from the images for most of the drawing" (P19), while a few shared that "some of the elements were drawn from imagination" (P08). These responses underscore that, even in the absence of AI image generators, digital, screen-based and algorithmically mediated visual research methods remained central to students' compositional and technical decision-making.

Post-Research Survey – Sections 2 & 3: Perceptions, Learning, and Comparative Attitudes

This subsection presents findings from Sections 2 and 3 of the Post-Research Survey, which used Likert scale items to explore students' perceptions of what they learned from using generative AI in their visual research and to invite them to re-rate key attitudinal statements from the pre-survey. This section highlights areas where students' views on AI image generators, including aspects of their attitudes to GenAI, changed or remained stable.

Section 2 focused on participants' use of AI image generators in the study. Since almost all students reported that they did not use AI image generators for this assignment, most respondents selected "Not applicable" for these items, and no meaningful quantitative patterns could be derived from this section. This absence of data itself underscores the limited reported uptake of AI systems in practice.

The Likert-scale responses in Sections 2 and 3 of the Post-Research Survey indicated that students' attitudes toward AI image generators remained predominantly critical, with only minor shifts compared to the pre-survey. On the statement "I believe AI image generators can be useful for artists and designers," most students continued to disagree or remain neutral, and only a small number agreed or strongly agreed both before and after the assignment (pre: 6 strongly disagree, 4 disagree, 4 neutral, 0 agree, 1 strongly agree; post: 5 strongly disagree, 4 disagree, 5 neutral, 1 agree, 2 strongly agree). This pattern suggests that, even after classroom discussion and modeling, and an assignment in which AI systems were suggested as an option, students' overall views of AI's usefulness in the visual referencing aspect of art and design remained critical.

Concerns about originality and interference with creative processes stayed high before and after the assignment. For the item "I am concerned that using AI in artmaking could reduce the originality of work and interfere with creative process using other materials," almost all respondents agreed or strongly agreed in both surveys (pre: 2 agree, 12 strongly agree; post: 5 agree, 10 strongly agree), with only isolated neutral or mildly disagreeing responses. A few more students endorsed the idea that "AI-generated images can inspire new creative ideas," but responses remained skewed toward disagreement or neutrality (pre: 7 strongly disagree, 2 disagree, 4 neutral, 1 agree, 1 strongly agree; post: 6 strongly disagree, 4 disagree, 5 neutral, 3 agree, 1 strongly agree). These results underline a persistent perception of AI image generators as more threatening than supportive to the creative process as understood by the participants.

Awareness of biases, stereotypes, and limitations in AI-generated images was consistently high in both surveys. For the statement "I am aware of possible biases, stereotypes, or limitations in AI-generated images," most respondents selected the upper end of the scale (pre: 3 agree, 10 strongly agree; post: 7 agree, 8 strongly agree), indicating that critical literacy around AI imagery was already present and remained strong. However, this awareness did not necessarily translate into confidence in technical understanding as responses to "I understand how image generators were built and how they operate" were more in agreement, with students clustered around the midpoint of the scale in both surveys (pre: 3 strongly disagree, 1 disagree, 5 neutral, 3 agree, 4 strongly agree; post: 3 strongly disagree, 2 disagree, 5 neutral, 3 agree, 4 strongly agree). Together, these findings suggest that while students felt knowledgeable about the ethical and representational issues surrounding AI image generation, many remained unsure about its underlying mechanisms, reinforcing the mixed stance of informed critique paired with limited

technical familiarity. Meanwhile, adoption of other screen-based media suggested that students view them as acceptable forms of visual research.

Post- Research Survey – Section 4: Open-Ended Reflection

This subsection considers the open-ended reflections from Section 4 of the Post-Research Survey, where students were invited to elaborate on their previous responses or share any additional perceptions about AI image generation that had not been captured elsewhere. The emphasis here was on how participants retrospectively made sense of visual research and AI image generators in relation to their creative processes, values, and future practices.

In these final open-ended reflections, most students described Project 3 as reinforcing rather than transforming their existing approaches to visual research and ideation. Several emphasized the continued importance of personal and self-curated visual material, stating, for example, that they would "continue to use personal photos as references more often" (P06) and that visual references were particularly helpful "for perspective" (P19). Others noted that the collage requirements had shifted their process slightly, with one student explaining that they might now be "more inclined to collaging/photobashing my references together as a physical reference," rather than keeping compositional experiments "in my head" (P17). At the same time, some reiterated that they "could not see using AI because it gets things wrong, like proportions" (P03), suggesting that their reservations about generative systems were linked to both ethical and practical concerns.

When invited to reflect on unresolved concerns, students continued to articulate strong critical reactions to AI in artmaking, often framing their objections in terms of authenticity, effort, and ownership. One student said that they didn't use the generative AI systems listed but noted that "every time I use Google, without request there is an AI response," indicating frustration not only with AI in artmaking but also with its perceived ubiquity in everyday digital tools. A number of participants emphasized the contrast between the labour of traditional artistic practice and the perceived ease of AI, with one writing: "I spent so much time and effort building my idea, editing, etc., while AI makes something for you and you do not exercise your brain to fight the problems, troubleshoot, etc. AI kind of feels like a slap in the face" (P13). Others concluded that, "regardless of ethical concerns (which are plentiful) the technology is wholly unreliable" (P17), that AI might be "good in some cases but not for creating art" (P20), and that they preferred "knowing I created each

project myself" (P18), implying that a sense of authorship or ownership was compromised as soon as AI entered the process despite having availed themselves of other digital media systems.

Despite these strong objections, a few students expressed cautiously open or nuanced positions, distinguishing between different uses and conditions under which AI might be acceptable. One participant wrote that the "use of AI, when limited to support-work and non-invasive of artists' property, is an exciting prospect" (P19), and another, who remained firmly against using AI personally, acknowledged that they could understand why someone might want to use it "as a tool for reference," but believed it was "not worth the cost" and that they obtained "better results using my own tools" (P12). This student added that if ethical and ecological concerns were truly resolved they "could be open to the concept," before concluding pessimistically, "But it won't" (P12). Taken together, these reflections echo the critical and practical concerns evident in the pre-research survey and classroom observations: students entered the unit with strong reservations about generative AI, and the experience of Project 3 largely confirmed rather than unsettled those positions. When asked whether anything in the course could have better facilitated the use of AI image generators, students generally indicated that their reluctance stemmed from pre-existing convictions rather than classroom influences, with one stating they had "already made up my mind years ago that I would never use AI" (P08) and others describing their refusal as a matter of personal values communicated in the surveys and in class discussions.

Implications of the classroom study

Across the pre- and post-research surveys and the classroom study, the findings suggest that students approached the Space & Place unit with diverse but largely critical orientations toward AI image generators, grounded in concerns surrounding ethics, environmental sustainability, and threats to artists' livelihoods and identities rather than simple technical unfamiliarity. The comfort level of participants with digital tools more broadly was mixed, but they consistently framed their lack of AI use as a deliberate stance in support of more personal art-making processes, self-development, and existing visual research methods. This baseline resistance, and its persistence across the unit, provides an important context for interpreting the limited uptake of AI image generators during the assignment and helps explain why, even when AI was presented as an option, students continued to favour other forms of visual research in their drawing practices.

Analysis

The classroom-based study exposed patterns of critiques and rationales for not adopting AI image generators that emerged not as a simple absence of engagement, but as a meaningful encounter in its own right. While the Stage 1 autoethnographic work demonstrated both creative possibilities and limitations of AI image generators for visual research in drawing, Stage 2 showed that most students approached the same systems primarily as something to be held at a distance, questioned, or kept peripheral to their own processes, often perceiving them as jeopardizing meaningful learning and artistic practice. In other words, what was planned as an inquiry into how students might integrate AI into their visual research has become an inquiry into why many chose not to incorporate it, and what these decisions revealed about their values and understandings as artists. From the perspective of my openings and narrowings framework, students' non-use of AI can be read as a deliberate narrowing of their visual research ecology—a choice to close off one option in order to preserve other kinds of learning, agency, and ethical alignment.

A first pattern in the data was non-adoption as a form of resistance. By communicating at the outset that students had options to either incorporate AI image generators for visual research and ideation or rely entirely on more conventional sources, their decision to work without AI emerged as data rather than as non-compliance. That only three of eighteen participants included any AI-generated images in their process books, and that none chose to base their final drawings on AI images, indicates that these choices functioned as a way of resisting a technological innovation that is being foisted upon them everywhere they turn. In this sense, opting not to use AI became one way for students to draw a line between their own practices and broader technological and corporate developments they did not wish to endorse, with some participants still leaving open the possibility that they might make different choices under different conditions or for different kinds of work.

At the same time, care for craft rather than rejection of technology in general helps explain many of these decisions. Numerous students were already comfortable with digital tools and online resources, yet they framed their reluctance to use AI as a way to protect the integrity of their learning and making processes. They worried that AI would "stifle" their creative capabilities, offer unreliable or distorted imagery, short-circuit the struggle and problem-solving they associated with artistic growth, and erode the satisfaction of knowing they had created a project themselves. The

requirement to build collages or composites from multiple references—whether hand-crafted or digital—became an opportunity to see students actively investing in composition, perspective, and material choice without turning to generative visual solutions. In this way, their decisions can be read as a form of care for the embodied work of collage and drawing, for the challenges of conventional forms of research and iteration, and for the sense of authorship that students wanted to preserve.

A third dimension of the data is that selective non-use also functioned as an expression of critical literacy about emerging technologies. Many students articulated sophisticated concerns about how AI systems operate (for example, large-scale scraping of artists' work and the associated energy demands), how they affect economies of labour, and how they intersect with broader issues such as gender-based violence, deepfakes, and misinformation. Their comments suggest that students were not simply reacting to AI as a mysterious or misunderstood system but responding to it as part of a wider sociotechnical system they considered unreliable, unjust, unsafe, and a threat to the identities they were investing in as artists. Even those who were cautiously open often did so conditionally by imagining limited, support-oriented uses that would respect artists' rights and avoid environmental harm. This indicates that their decisions not to adopt AI were informed not only by personal feelings, but by a developing capacity to ask who benefits, who is harmed, and under what conditions such technologies might be acceptable in their practice.

Altogether, these patterns complicate any straightforward narrative about integrating AI into the art classroom. The study began with an intention to test and extend the findings from Stage 1 by exploring how students might use AI image generators as part of their visual research. Instead, it showed that, when offered a real choice, many advanced drawing students actively protected their creative spaces and processes from AI or positioned it carefully at the margins of their work. Their decisions operated simultaneously as resistance to technological imposition, as care for the craft and labour of embodied practices, and as an expression of critical literacy about emerging technologies. These intertwined responses are crucial for the upcoming discussion chapter, where they can be put into dialogue with a/r/tographic methodology and theoretical debates about agency, ethics, and technological adoption in art education.

Chapter 7: Synthesis, Discussion, and Implications

This chapter brings the two stages of the a/r/tographic study—my own autoethnographic practice and my classroom research—into dialogue to address the central research question. Then, I return to existing literature to track how the findings of my research travelled with, diverted from, or found limits of what I was reading about GenAI in visual research and art education. I conclude this chapter by considering pedagogical and institutional implications for drawing curricula and the interdisciplinary contributions to visual arts, education, and art history that this thesis offers.

Bringing Practice and Classroom into Dialogue

My intention for this a/r/tographic study was to dwell in my overlapping and emerging experiences as an artist, researcher, and educator with an inchoate technology that has been impacting life for myself and my students—to varying degrees—in the studio, in the classroom, and in the world at large. Through visual experimentation, reflexive writing, and critical dialogue, I trace how meaning was made, challenged, and reshaped through interactions with GenAI within these spaces. The methodological approach of a/r/tography allowed me to attend to potential openings—or new possibilities—emerging from my interactions with AI image generators, and to trace the narrowings that accompanied them; to register if openings invited, redirected, constrained, or withheld visual research opportunities in relation to customization, ideation, and iteration within artistic process work; and to see how potentialities or constraints impacted embodied drawing practices. In this way, my research was less about finding fixed outcomes and more about charting the confrontations and new perspectives that might arise in relationships between artistic creation and technological intervention.

This project sought to address the central research question through a two-stage research design involving autoethnographic practice and classroom-based research that imparts my experiences as an artist/art-educator and those of my art students in an upper-year college visual arts class as we explored AI image generators within visual research processes for drawing. Although the two stages of this study were mapped out so that we navigated similar areas of inquiry and guided one another, my artistic journey turned out to be very different from the students'; this result took me to an unanticipated destination at the end of this inquest for pedagogical and institutional guidelines to consider for those integrating GenAI in classrooms going forward.

The research began with an autoethnographic study in which I explored AI image generators—specifically Adobe Firefly due to institutional availability and its consent-based dataset—within my visual research practices to see if this technology provided openings in process work for my own drawing practice that would also inform my approach to teaching traditional drawing classes. This practice-based part of the study treated AI-generated images as provisional reference sources and examined how I revised, critiqued, and transformed those images into hand-made, personally meaningful drawings with physical materials, and how the materials, in turn, co-directed the process. Rather than judging the success or failure of GenAI systems, I explored image generators for three potential opportunities, or openings: to produce customizable reference material; to generate visual experiments that expand ideation options; and to facilitate the production of visual reference material iterations.

The investigation yielded varying but meaningful findings throughout the creative cycles of the autoethnography. The most significant opportunities emerged when AI image generators were used for custom reference material and as occasional catalysts for unexpected details. Looking back at the process of creating my first AI-influenced drawing, *At Your Service*, I found compelling openings and emergences in Firefly's capability to provide custom outputs of place settings that offered "hallucinatory" elements such a handle on the bottom of teacups, two handles in close proximity on the side of a mug, and a plate crack that severed a knife into a fork; these surprising details encouraged conceptual shifts in the final drawing that enriched its commentary around themes of service, care, and spirituality. However, with this opening arose uncertainty about authorship that led to deeper reflections on my agency in the process, the provenance of the generated details, and past precedents for inspiration and co-creation in the arts.

By contrast, for the second drawing, *In The Clouds*, the same system constrained my visual research with generated aerial landscape images that did not match important prompt details and that could have been sourced through other methods, like Google Maps. For the third drawing, *Of The Past*, generative outputs offered openings that invited access to aerial perspectives of an undocumented memory while also revealing Firefly's encoded 'moral' algorithms as it rejected prompts that included "father and young son" or "man and boy," suggesting that the model's guardrails were quite sensitive to potential misuse. This unanticipated finding showed how broader cultural concerns and corporate safety protocols are embedded in AI systems in ways that redirect, and sometimes limit, intentions of artists working with care, kinship, and memory. Taken together, my autoethnographic experiments demonstrated how AI image generators can, in my

case, offer opportunities for visual research in ways that may be worth bringing to the classroom. At the same time, those opportunities were never straightforward. The moment I introduced GenAI into my process, its defaults, safety filters, and training biases began to inform and narrow what was offered back to me, and those narrowings became part of what the study had to account for rather than ignore.

As the study progressed into Stage 2, I expected my students to share similar experiences, opportunities, and critiques; they did not. The classroom stage of the study was carried out with eighteen students in a third-year college explorative drawing course where AI image generators were offered as one option among several for visual research. This research design deliberately allowed their choice not to use AI to emerge as data rather than as non-compliance. Only three of the eighteen participants included any AI-generated images in their process documentation submission, and none made final drawings that responded to generated images. In post-research surveys, students explained their choices in terms of, among other things, the way they were built (datasets built on theft of artists' work), the way they run (with unsustainable environmental impacts), the effects they have on working artists (job precarity, devaluing of the creative process), and straight up disinterest in GenAI technology. Students also expressed strong preferences for visual research drawn from personal archives, stock image banks, social media, and video game screenshots—although the AI and algorithmic systems embedded within some of those search and curation resources were only acknowledged by one student. Does this signal that certain uses of algorithmic systems and GenAI technology have been accepted more broadly than others?

What had begun as an inquiry into *how* AI image generators might be integrated into visual research therefore shifted to an inquiry into *why* students may choose not to integrate them, and what their choices revealed about their values as emerging artists. Three patterns ran through the data regarding their choices: resistance to technological imposition, care for craft and artistic identity, and critical literacy. As articulated through sophisticated concerns about the AI systems in class discussions and research surveys, many students' chose not to use AI as a way of setting a boundary between their own practice and what they perceived as exploitative corporate systems. They wanted to protect the labour and familiarity of their approaches to research and ideation, the struggle of what they perceived as authentic and embodied artistic creation, and their sense of authorship. Even those who were cautiously open to GenAI framed any acceptable use as narrow and conditional.

The most important difference between the two stages, then, was not that one validated GenAI and the other rejected it. It was that the two stages revealed different patterns in the findings, resulting in boundaries set by different makers, for different reasons, in different relations to the same technology. I let AI image generators into the visual research process thereby inviting its agency into the final outcomes of my drawing, but I reasserted my own relative agency through an additional co-creative interaction with analogue drawing materials. My students largely refused all AI image generators from their creative process entirely. These boundaries, read through a/r/tography, are embattled forms of negotiation with an entangled medium that permitted or denied (or possibly delayed) potential openings from an evolving technology. While I found openings through interactions with the technology that invited me to pursue opportunities for further exploration in my artmaking and teaching, additional openings appeared in dialogues with the student participants that redirected me away from my route to integrating this technology in my studio and classroom practices, and destabilized my position on the technology's utility. The uneasiness that I felt when considering my students' positions added to the uncertainty I was already sensing regarding the constellation of concerns surrounding this technology and my ability to claim authorship over my work when referencing unanticipated details from the AI image generation process. If many visual arts students report that they don't want anything to do with GenAI in their creative practices, how can my research contributions help shape policy that makes space for those values when considering the integration of AI into visual arts curriculum? If young artists are doubling down on their abilities to create work without the involvement of emerging GenAI technology that is being touted at every turn, then I should support them on that path where I can.

Accompaniments, Diversions, and Impasses with the Literature

Returning to my a/r/tographic methodology in which I looked for openings, or creative possibilities, in my interactions with AI image generators and paid attention to how they invited, redirected, constrained, or withheld exploration in relation to customization, ideation, and iteration opportunities, this section extends the methodology to consider how my journey through the research process moved in three ways with the reviewed literature—through accompaniments, diversions, and impasses. Accompaniments describe moments when my inquiry followed an opening down established pathways, walking alongside existing scholarship while expanding it

with my practice-based accounts. Diversions mark the times when openings sent me off into less traversed routes, wandering into questions that the literature touched only lightly or not at all. Impasses identify those encounters where my research ran up against the limits of current frameworks, revealing conceptual limits that call for different approaches to GenAI within discussions around drawing, education, and visual research.

Visual Research & Art Historical Traditions

Recent and historical examples show that visual research in the form of photographic, observational, imaginative, and other artwork references has been integral to the processes through which artists gather and process visual information that informs many forms of artistic work. In the digital age, photographic visual research has expanded beyond primarily printed sources to include online image searches, image banks, social media, screenshots and, increasingly, immersive formats that offer novel and dynamic visual research options artists are treating as sites for experimentation (Barricelli et al., 2021; Yi Lunna, 2024). The findings of my study accompanied the literature by showing that AI image generators should be considered within the contemporary visual research ecology while acknowledging the different affordances and limitations it offers within material art practices. However, my study also found an impasse with existing research when it comes to including GenAI in this ecology by highlighting the problematic nature of these systems such as the unconsented material in the datasets, the opaque operations of the model, the systems' lack of attribution to sources, the corporate orientations of these systems, and the environmental impacts of the massive infrastructures necessary to operate them.

My study diverted from research that suggests GenAI systems are less likely to threaten traditions of art via automated artistic production than it is to shift artistic practices and aesthetics in contemporary art in a way that mirrors the impacts of past technologies, like photography and Adobe Photoshop (Epstein et al., 2023; Arthur, 2010). From ideation to visual research to response, AI image generator systems and outputs align with impacts of past technological innovations to pose complex and uncertain effects on creative processes that are playing out in studios and classrooms for those artists and art students who are experimenting with its capabilities. However, the unprecedented scale and impacts of GenAI, as described in Chapter 4, differentiate it from the contexts of past technological precedents. My study documents how the conditions particular to GenAI result in the varied reactions to this technology by those in the arts community—as seen in

the different outcomes of my research in Stage 1 and my students' in Stage 2. Thus, the role of AI image generators in visual research for artistic practices remains contested.

Co-creation, Authorship, Agency, & Aesthetics

The findings of my research accompany and divert from the literature on co-creation, agency, and authorship in relation to GenAI. My own use of GenAI follows Jasen and Sklar's (2021) research in which artists found potential value in using these systems as an option during preliminary creative process work to provoke unexpected directions and offer variations. My autoethnographic research also accompanies Hutson and Robertson's (2023) case study that extends the notion that AI image generators can open new opportunities for compositional exploration in traditional drawing and highlights the need for artists to use foundational art skills and critical judgment to respond to AI outputs, rather than passively accepting them. The co-creative process in my autoethnographic study showed how AI image generators can work as an option for visual research that had its limitations but nonetheless opened possibilities, in my case, for customization, unanticipated details, and iterative variations that I critically assessed and reinterpreted through analogue drawing. While I found value in my approach to working with AI image generators, further experimentation is necessary to test these methods with other artists and within educational contexts.

My study diverted from this co-creative literature, however, by showing how quickly AI-generated provocations become entangled with questions of authorship, originality, and ethical provenance when inspirational details move from provisional sketches toward final artworks. Sáez-Velasco and colleagues (2024) and Amini (2025) extend co-creative discussions with their analysis of students' paradoxical responses who, on the one hand, reported that AI contributed to brainstorming and lowered the threshold for visual experimentation, and, on the other hand, worried about diminished control over their creative workflow, blurred lines of authorship, and the sense that their work was partially outsourced to systems whose training data and business models remain opaque. To address these risks, in my case, my use of the system adhered to the importance of documenting process work to make GenAI involvement transparent, as suggested by Gjorgjieski's (2024), which proved essential in my autoethnography and in articulating to students what transparent co-creation with AI would require. Although my autoethnography tracked the potential for GenAI as a collaborative partner for students with new affordances for creative experimentation through an iterative process that encourages critical engagement as they

assess and respond to the system's outputs, the students upheld their boundary not to explore the terrain of this technology.

The most pronounced impasse of the co-creative literature was encountered with my student-participants. Much of the recent scholarship on AI in art education (Amini, 2025; Pavlik & Pavlik, 2024; Black & Chaput, 2024) frames the central question as *how* to integrate AI productively. My findings suggest that this framing skips prior questions around *whether* students want this integration at all. When given a genuine choice rather than a mandate, advanced drawing students in this study denied AI from their visual arts studies, and they were able to articulate sophisticated reasons why they did so. In the language of this thesis, they deliberately narrowed their visual research ecologies by coordinating particular kinds of agency, ethics, and craft at the center of their practice. The student-participants' stance accompanies recent reports that show how students are not asking to be trained as AI users but as thinkers who happen to have new instruments available (Means, 2026).

Regarding authorship, my research accompanied the literature that emphasized the need for transparency and criticality in co-creative projects with GenAI (Amini, 2025; Gjorgjieski, 2024; Black & Chaput, 2024) but uncertainty remains around my claims to the unexpected elements that emerge in the AI generated images due to the inability to accurately attribute source material beyond the system itself. Even when best practices for transparency of GenAI contributions are maintained, who or what are we giving credit to? The findings of my classroom research suggest that personal intentions, transparency, and critical response were not enough to mitigate students' views that, in this collaborative scenario, creative processes are being outsourced to an opaque, unpredictable, and unethical system. Ultimately, in this study drawing-based responses to AI generated images are treated as human-authored works produced through distributed agency, while also acknowledging that the provenance and scale of GenAI outputs make ownership and credit more fragile and more contested than in prior reference practices.

Extending the discussion on co-creation and authorship to aesthetics, the findings of my research accompany Manovich's position on AI image generators capability of introducing new artifacts with unique content and visuals. As mentioned in Chapter 4, Manovich defines a "unique cultural artifact" as having enough original details to make it sufficiently distinct to appear novel and different from everything else. He clarifies this assertion by stating GenAI can only create unanticipated outputs or hybrids based on already-existing forms and aesthetics while only human-made images can include unique content, details, and aesthetics. He also notes that

novelty alone doesn't guarantee cultural or social value, as creativity generally requires significance or usefulness in addition to originality (Manovich, 2024, p. 85). Thus, Manovich—a theorist of remix culture—clarifies my experience of the AI-generated image of a teacup with the handle on the bottom as an anomalous form that, itself, is an interesting object, to me, that has not, as far I found, existed before—but it is nonetheless a hybrid of existing forms and its significance comes from its conceptual value for my artistic intentions.

My study follows Manovich's concept of 'extended aesthetics' that situates GenAI systems in the history of tool usage in artistic practices and explains the nature of how these systems cease to be just tools and become agents embedded in aesthetic workflows, extending and partially automating the production and evaluation of aesthetic artifacts (Manovich, 2024). His concept accompanied my autoethnographic research in which I used AI image generators, and it supported the development of a framework for guided critical interrogation of AI outputs that attempts to delineate the aesthetic agencies of the machine and the artist. However, where Manovich's theory and practice end with the AI generated images, my study pushed beyond human-AI collaboration for automated digital outputs towards embodied responses through material practices. Furthermore, this study revealed how student-participants choose not to engage with GenAI's aesthetic offerings in their artistic practices despite its prevalence in other technological interactions in their lives and research practices.

Entanglement

In addition to identifying the aesthetic impacts that GenAI systems extend to artists in their creative production, my thesis addresses the entanglements involved in co-creative processes. My research both accompanies and diverts from Leonard's Entanglement Art Education (EAE) framework, which argues that art education should recognize non-human agents such as machines, materials, and environments as co-creators rather than as neutral tools (Leonard, 2020). Within EAE, AI image generators participate in the creative process by shaping options, suggesting forms, and influencing decisions, and my findings accompany this claim by showing how Firefly actively informed and redirected my visual research process. At the same time, the classroom episodes in which students voiced discomfort, skepticism, or outright refusal to use AI, and confirmed their preferences for non-AI forms of visual research, highlighted the politics of data extraction, labour, and sustainability within these entangled processes. Leonard's acknowledgement of students' hesitance toward posthumanist views opened a pathway for me to

read refusal not as technophobia, but as a legitimate way of negotiating entangled agencies. My study supports this insight and extends it by treating refusal as data rather than as a problem to be solved, and by offering an empirical account of what entangled refusal of GenAI looks like in a third-year college drawing course. In this sense, my findings show that critical literacy about GenAI can manifest as a politically informed refusal, which creates an impasse for integrating GenAI into curriculum and demands that EAE explicitly hold space for students who choose not to participate in certain entanglements.

The autoethnographic findings also accompany Constructivist Learning Theory's transactional orientation. My experience with Firefly was about testing prompts, evaluating outputs, revising language, and responding through drawing, reflection, and discussion rather than seeking definitive answers; knowledge of both the system and my artistic development emerged through iterative practice with image generators and physical drawing materials, in line with constructivist views of learning as co-constructed through activity. The same can be said of the students' refusal of AI, where resistance was constructed through encounter—watching demonstrations, talking with peers, and integrating ethical reasoning developed elsewhere in their education. In these ways, the study accompanies constructivist accounts by illustrating learning as a dynamic process that unfolds between learners, tools, systems, and contexts, but it also introduces a divergent path by foregrounding refusal as active responses, rather than as absences of learning.

My research also accompanies posthumanist theories of relational agency, as cited by Leonard (2020), by diverting assumptions of creativity as originating solely in the artist and instead treating creativity as distributed across the human, the algorithmic, the discursive, and the material. In my autoethnographic work with Firefly, prompts, model behaviours, and interface constraints shaped the process as the system's repetitions, refusals, and surprising details not only extended my options but also redirected my attention and narrowed what felt possible in particular moments. As I translated these digital encounters into analogue drawing, the materials that I used along with my habits with them and my experiences while using them contributed to my responses to the AI-generated images, modulating or countering the images' influences in my studio practice.

Pedagogical & Institutional Implications

The pedagogical implications of this study begin with a recognition that many students report not wanting this technology in their visual arts classes. The outcomes of my classroom research clearly demonstrate this. Additional anecdotal evidence from my Drawing 1 foundations classes reinforces this position; over 60 students were tasked with an assignment requiring visual research without restricting the option of AI image generators and only one of them mentioned AI when they were prompted for the source of their visual research in the final critique.

Meanwhile, my observations of communications from post-secondary institutions, conversations within faculty exchanges, professional development workshops, and curricular planning sessions suggest institutions are, or should be, moving full speed ahead to incorporate AI-integrated workflows into pedagogy. I have been a part of many meetings in which faculty show awareness that students need to be trained as thinkers who happen to have new instruments available, not just AI users. Since AI is being promoted so heavily and many students are already relying on GenAI technology in their academics and daily lives (Means, 2026), faculty feel pressure to provide guidance and training that prepares students for industry and real-world experience in what is assumed to be an AI-dominated landscape (Council of Ontario Universities, 2026; Means, 2026). I believe that faculty intentions to support students are genuine but the 'inevitable' AI era ahead is not a certainty. Instead of investing in AI products to support students, colleges should be investing in their futures in other ways and asking what problems these AI systems are going to solve within education that couldn't be solved without corporate intrusion. Moreover, while many higher education students across all faculties are using AI, they're not necessarily embracing AI and are deeply concerned about its impacts on their future (Flaherty, 2026).

Accounts of what students want from this technology and how they feel when asked to use them are actually being used to support faculty's integration frameworks. Durham College—where I teach and where the classroom study for this research was conducted—released a study (Chapman et al, 2025), specifically looking at the impacts of GenAI on teaching and learning in a Canadian college context, that focused on students' perceptions of AI and its role in purportedly developing durable skills such as critical thinking, communication, and creativity. Students in that study see generative AI as a useful aid to learning but worry about its reliability, ethical risks, and possible erosion of their own skills. The study argues that students want AI to be integrated carefully into their learning and continuously adapted in pedagogy so that it strengthens, rather than replaces, their development of essential durable competencies.

A recent article in the EDUCAUSE Review (Yoon, 2026) highlighted how faculty skepticism toward generative AI is grounded in concerns about overreliance, disclosure, copyright, and the erosion of critical thinking—concerns that mirror student skepticism rather than oppose it. The institutional implication this article suggests is that AI policy must be developed with faculty *and* students as informed partners, not as audiences to be brought along. Within this tension, my research suggests that visual arts curricula should treat AI image generators as contested options in process work—not as required systems—and they must provide equivalent non-AI pathways for students who prefer other forms of visual research. In my autoethnography, openings emerged when GenAI was treated as a provisional collaborator in ideation and reference gathering, while execution and decision-making for the final drawings remained with me and my materials. Pedagogically, this position is defensible only if students are free to take or leave such systems and if refusal is recognized as a legitimate stance rather than as a deficit.

Assessment practices also need adjustment. Rather than rewarding novelty or speed alone, evaluation should focus on process, transparency, and decision-making. Students should document their research and development work—including brainstorming notes, sketches, references, and reflective writing—and, where GenAI is used, this documentation should include prompts, outputs, and revisions. Assessment rubrics should reward attribution and critical engagement with AI, but they must also explicitly accommodate students who choose non-AI methods, ensuring that grades do not hinge on AI use.

Finally, drawing pedagogy should protect foundational skill development and make affective space for the relationship students have with AI. Observational drawing, structure, anatomy, painting, printmaking, and sculpture are embodied practices through which students develop the judgment that any meaningful engagement with AI-generated images requires. These are not curricular relics to be optimized around; they are the conditions that make a critical relationship with AI-generated images possible in the first place. Visual arts curricula must therefore make affective space for the strong attachment to embodied, self-driven making students have and how this informs their relationships with AI, including fear, anger, discomfort, and limited, conditional openness. A curriculum that ignores these affects in favour of skills training in GenAI systems risks missing central student values.

Policy Considerations

Across higher education, policy documents and institutional strategies often frame generative AI as a lever for "enhancing" human thinking, "personalizing" education, and keeping institutions competitive in a global, AI-inflected economy (OECD, 2023; Black & Chaput, 2024). My research complicates this narrative by foregrounding learners and teachers who are wary of these systems and who value alternatives that do not depend on opaque and extractive corporate infrastructures. Any institutional guidance for AI in art education must therefore be grounded not only in generic AI ethics, but in the ethics of education itself: what education is for, whose agency it should protect, and which forms of labour and judgment should not be delegated to machines (Holmes, 2026).

Holmes argues that much AIEd guidance remains on the surface, focusing on bias, privacy, and transparency while largely ignoring deeper questions of normative ethics and the aims of education. He calls for frameworks that explicitly name the ethical traditions they draw on and that avoid "automated abdication" of pedagogical judgment or the "cognitive atrophy" that can follow from overreliance on automation (Holmes, 2026). Applied to visual arts, this means that AI policy must take seriously the autonomy of teachers and students, rather than treating AI integration as an inevitable technical upgrade.

Within this broader frame, institutions still need concrete policies to help students and educators navigate GenAI. The literature frequently returns to a set of overlapping principles: transparency in disclosing AI use; clear expectations for attribution and citation; attention to training data provenance and intellectual property; and explicit discussion of bias and representation in model outputs (Amini, 2025; Hutson & Lang, 2023; Jiang et al., 2023). These guidelines can support critical AI literacy, but only if they are paired with structural commitments to providing non-AI alternatives in assignments, recognizing refusal as a legitimate position, and supporting educators to teach about AI's infrastructures, impacts, and limitations, not just its interfaces.

Institutional Implications

With regard to institutional implications, initial questions raised by this study are: should educational institutions be so quick to welcome this technology and champion its integration into curriculum? Should they accept the inevitability of an AI-dominated future in which students must be prepared lest they be left behind? As I completed this thesis, I was recruited into a curriculum integration taskforce at a college where I was employed, for which I was asked to develop an AI

curriculum mapping report for the two-year Illustration diploma program. The findings of my thesis research informed that report directly, and the document's recommendations now feed back into the institutional implications of the thesis. The findings of my research informed that report directly, and the document's recommendations now feed back into the institutional implications of the thesis.

Three provisional guidelines sit at the centre of that report. First, make AI visible as a contemporary professional issue, not as a technical efficiency tool. The central curriculum question is not "should students use AI?" but "how should emerging illustrators understand, evaluate, disclose, refuse, or responsibly engage with AI in professional practice?" This reframing allows institutions to take AI seriously without coercing students into using it, and it acknowledges refusal as part of professional practice rather than as evasion of training.

Second, adopt a layered curriculum architecture that distinguishes between required critical literacy, optional studio pathways with non-AI alternatives, and required disclosure in capstone and portfolio contexts. In the recommendations put forth to the college, critical-literacy modules appear in courses where professional judgment is central, optional studio assignments permit AI in process work only and are paired with equivalent non-AI alternatives, and graduating students produce AI-use or non-AI-use statements in capstone and portfolio courses. This layered model lets institutions integrate AI visibly while protecting foundational skill development.

Third, build permission, attribution, disclosure, and space for refusal into policy language. The report proposes standardized assignment text that makes AI permissions visible and requires disclosure statements in capstone and portfolio courses. Students affirm their responsibility for all final creative, ethical, and professional decisions and document systems used, prompt purposes, stages of use, and the extent of modification when AI is involved.

This approach is consistent with policy directions at institutions such as Capilano University, Emily Carr University of Art + Design, and OCAD University, which emphasize critical AI literacy, course-level clarity, disclosure, alternatives, student consent, fair grading between AI and non-AI students, and attention to privacy, intellectual property, environmental costs, and author compensation. It also requires institutions to attend to their own commitments. Most Universities' stated emphasis on sustainability, for example, sits in contrast with the environmental costs of large-scale AI infrastructure, which students in this study named directly in their surveys. Institutions that take these tensions seriously will resist framing AI as inevitable. They will hold

open spaces in which students can encounter AI critically, choose their relationship to it, be aware of its impacts, and graduate able to defend that choice in professional terms.

At the institution where I am employed, I am only at the beginning of this curriculum integration process that will unfold over the next year, during which I anticipate an insightful collaborative effort involving administrators, faculty, and students. I look forward to learning more about AI policies and curricular strategies being developed within other programmes and across other institutions. In my role as a faculty representative assessing opportunities for integrating AI into art curricula, I will bring insights from this thesis and continued research into alternative image generator options.

Interdisciplinary Contributions

A/r/tography embraces the dissolution of disciplinary boundaries and borders between the creative and the theoretical. However, here I will highlight the contributions of this thesis that reverberate back to the three disciplines that opened up this interdisciplinary inquiry.

> Visual Arts: The study contributes to contemporary debates about authorship, embodiment, and the place of generative technologies in studio practice. It recognizes AI image generators as a new option for visual research while tracking the specific affordances, limits, and risks of generative systems. The thesis identifies contemporary artists who are using GenAI in various embodied practices. By documenting both productive openings in my own practice and principled refusal in my students' practice through an a/r/tographic methodology, the study offers visual arts a working vocabulary—*openings*, *invitations, accompaniments, diversions, lines drawn*, *forms of refusal*—for thinking about AI.
>
> Education: The study contributes to AI in education (AIEd) scholarship and to the developing literature on entangled pedagogies (Fawns, 2022; Leonard, 2020). It demonstrates what an a/r/tographic, autoethnographic methodology can offer when joined to classroom research, and it provides an empirical case for treating student refusal as part of the pedagogical record rather than as a problem to be managed. It also offers a concrete model—through the AI Curriculum Integration Report—for how institutional AI policy can be designed to address integration and refusal of this technology as a professional position.

Art History: The study contributes a contemporary chapter to the long art-historical conversation about reference, inspiration, and authorship. It situates AI image generators within a long history of artists' reference tools—from photography to digital image banks. By reading AI image generators in relation to earlier image technologies and shifts in artistic labour, it helps to extend art-historical analysis into the generative present. It also offers primary-source data—my process book, the research surveys—of how artists, students, and institutions are negotiating this moment in real time.

Chapter 8: Conclusion

Contributions of the Study

This thesis offers original conceptual, methodological, and practical contributions to the study of GenAI in visual arts and art education. Using an a/r/tographic methodology, I developed vocabulary for reading GenAI's roles in visual research in which I attended to potential openings and narrowings within co-creative explorations between artists and AI image generators. I traced how these encounters invited, redirected, constrained, or withheld visual research exploration in relation to customization, ideation, and iteration within drawing-based process work. My research engaged with existing literature in three ways: by accompanying it, by diverting from it, and by pushing beyond limits of current scholarship. Both my own and my students' intentions involved drawing figurative lines to express how we established boundaries around this emerging technology in ways that aligned with our values and comfort levels in art practice and art education. These choices not only resulted in research data, but they also extend Leonard's (2020) entanglement framework by foregrounding refusal and non-use as active modes of negotiating human–non-human relations, rather than as absences of engagement.

The study's methodological mix of a/r/tography, autoethnography, and classroom research not only allowed me to track openings across my own practice and a cohort of students, it also provided empirical grounding for guidelines to consider for pedagogical and institutional policies on the integration of GenAI in post-secondary art curricula. The openings in the research, critical stance of students and faculty, and insights of existing interdisciplinary scholarship all contributed to policy frameworks offered in the corpus of this study. These frameworks are meant to support student and faculty values and voices to be included in AI curriculum integration policies amid institutional pressures to fast-track this nascent technology into classrooms. My suggested guidelines for drawing curricula call for GenAI as an option rather than a requirement, process-focused assessment and transparency, prompts and documentation as teachable skills, the protection of foundational drawing, and affective space for students' relationships to AI. Guidelines for institutional curriculum demand making AI visible as a contemporary professional issue rather than a technical efficiency tool, providing critical literacy for all students, offering optional studio pathways with non-AI alternatives, and embedding clear permission, attribution, disclosure language, and space for refusal into policy.

Limitations of the Study

This study has several limitations that shape how its findings should be interpreted. First, the research is grounded in a single autoethnographic account and one upper-year explorative drawing course in a Canadian college context. The dynamics of my own studio practice, the culture of the specific program, and the local conversations about generative AI and labour all influence the openings and refusals documented here and may not be replicated in other institutions, disciplines, or national contexts.

The sample for the classroom component was small, consisting of eighteen students in one course who encountered AI image generators as one visual research option among several, rather than as a requirement. Students' choices to use other visual research methods or to engage with AI in this context therefore emerged under conditions of optional uptake, which likely differs from classrooms where AI is mandated, prohibited, or more fully normalized. The thesis cannot claim to represent the full spectrum of student responses to AI across art and design education.

The research took place during a period of rapid technical and policy change in generative AI and institutional AI planning at the time, limiting how far its findings can be extended. The specific moments I encountered—such as blocked "father and young son" prompts or the institutional emphasis on AI curriculum mapping—are historically situated and may shift as models, training practices, legal frameworks, and campus policies evolve.

My positionality as an artist-educator researching my own practice and my own classroom presents an additional limitation. As the instructor, I both designed the assignments and set the discursive frame in which students understood AI as an option, a concern, or a boundary. My presence, my own use of AI in my studio work, and my articulated ethical questions may all have shaped students' decisions and the ways they justified those decisions in surveys and discussions. While a/r/tography and autoethnography embrace this entanglement rather than seeking to eliminate it, they also mean that the findings are not detached observations but situated interpretations and limited by my particular sensibilities.

Finally, the methodological choices of a/r/tography, autoethnography, and classroom research privilege depth, situated nuance, and relational complexity over breadth or generalizable outcome measures. The study does not track long-term effects of student refusal or conditional use of AI on professional trajectories, nor does it compare learning outcomes across different AI

integration models. Instead, it offers a detailed description of openings, lines drawn, and forms of refusal in one set of entangled practices. These limitations point to the need for complementary research using other methods and in other contexts, which can test, extend, or contest the propositions advanced here.

Future Research

Directions for further research include additional testing of AI image generators in creative practices that examine the possibilities or limitations that might emerge for other artists, in other media, with newer models, and under different institutional conditions with this technology. One of the clearest findings of this research is that there are currently no publicly available AI image generators that prioritize the needs and values of the arts community. During this research, three artist-developed image generator projects surfaced as possible alternatives to the current publicly available systems: Tess Design, Titles, and Public Diffusion. These projects are significant because they point toward efforts for developing ethically accountable models built on consented material and artist-centred forms of participation, including artist attribution and royalties when creators' work contributes to another user's generated output. At present, however, they do not offer a fully viable public alternative for the kind of visual research explored in this thesis. Tess and Titles focus on allowing users to generate images in illustrative styles—even their own—which adds to concerns regarding authorship and displacement. Moreover, these systems do not generate the photographic references needed to support the drawing process that I see them as useful for. Meanwhile, the founders of Public Diffusion—the same artist duo championing artists' rights in the GenAI movement through their company Spawning and website haveibeentrained.com that offered a Do-Not-Train registry—have removed this beta development image generator from the internet without a trace as they reportedly focus on new initiatives that continue to position themselves as a key infrastructure provider for what they describe as a more "consenting AI" economy, but nothing has surfaced from them for over a year. (TechCrunch, 2024)

These developments nonetheless suggest that more ethical directions for image generation are possible. Preferable systems would be built on datasets that are trained exclusively on licensed and public domain images—of which there are a few datasets to consider in future research—and that prioritize informed opt-in participation, attribution, and meaningful compensation for creators or the rights-holder if their work is included in GenAI outputs. They would also operate on

infrastructures designed to reduce environmental impact. Recent reporting from UNESCO notes that smaller, task-specific models can reduce energy use by up to 90 percent, while shorter prompts, shorter outputs, and model-compression techniques can also substantially reduce resource demands (UNESCO, 2026). Related reporting from MIT emphasizes that greener data-centre infrastructure, more efficient algorithms, and better system design will be essential if AI systems are to become less carbon intensive over time (MIT News, 2025). Hosseini et al (2025) similarly argue that AI systems can and should be optimized for energy efficiency through techniques to improve model proficiency, so they deliver strong performance while substantially reducing their computational and environmental footprint. For visual arts education, such work on smaller, more efficient models suggests that "ethical" systems must be judged not only by consent and attribution but also by their infrastructural and ecological footprints.

Summary

My journey as an a/r/tographer began as an artist and part-time college art teacher who was curious and concerned about emerging GenAI technology. Through this research study, I investigated how co-creative encounters with AI image generators might open creative and technical opportunities in visual research for drawing-based practices. This interdisciplinary research situated GenAI within historical and contemporary discussions in art and education and surfaced creative and technical affordances as well as clear limitations in co-creative interactions with the technology in my art practice and teaching through limited, process-oriented integration. In addition to my practice-based research, a further stage of the study revealed the integration of GenAI in the curriculum of a third-year drawing classroom become an occasion for principled refusal of the technology rooted in ethical, environmental, creative, and pedagogical concerns or a preference for non-AI methods. These results should be treated as an opening for other modes of creative research and critical discourse rather than as non-compliance. Taken together, these findings argue that protecting embodied drawing practices are not barriers to innovation but necessary conditions for any defensible engagement with GenAI in art education. If GenAI is integrated into post-secondary visual arts curriculum, this thesis study provides insights into potential student reactions and technical encounters that might emerge, and it supports informed guidance for conditional use. The inevitability of an AI-dominated future is yet to be determined but, in the present moment, institutions are buying into the narratives that are being promoted by

corporate interests; it is not yet clear whether colleges and universities read AI as an opening primarily for students' flourishing, institutional competitiveness, or both. This project ultimately supports student values in learning how to leverage visual research in contemporary art practices while recognizing that AI image generators are one option among many that they may take or leave in their artistic practice and education. No matter where we draw a line with AI, I suggest using a pencil rather than a pen when setting boundaries around this technology, remaining open to moving toward or away from these systems as we learn more about them.

References

AlAli, R., & Wardat, Y. (2024). Opportunities and challenges of integrating generative artificial intelligence in education. *International Journal of Religion, 5*, 784–793. https://doi.org/10.61707/8y29gv34

Amarikwa, M. (2024). Internet Openness at Risk: Generative AI's Impact on Data Scraping. Richmond Journal of Law and Technology, 30. 533

Amarikwa, Melany. (2024). Internet Openness at Risk: Generative AI's Impact on Data Scraping. https://doi.org/10.2139/ssrn.4723713

Amini, H. (2025). AI in art education: Innovation, ethics, and the future of creativity. *Art and Design Review, 13*, 115–129. https://doi.org/10.4236/adr.2025.132008

Antal, K. (2018). *The next generation of emerging global challenges*. Policy Horizons Canada. https://horizons.service.canada.ca/en/2018/10/19/the-next-generation-of-emerging-global-challenges/

Arthur, C. (2010, February 11). How we learned to love Photoshop. *The Guardian*. https://www.theguardian.com/technology/2010/feb/11/photoshop-20-years-old-verb

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.

Barricelli, B. R., Varesano, A., Carbi, G., Clemmensen, T., & Pittarello, F. (2021). Contemporary art digitalization: An opportunity for designing new experiences. In C. Ardito et al. (Eds.), Human-computer interaction – INTERACT 2021: Lecture Notes in Computer Science (Vol. 12936, pp. 382–385). Springer, Cham. https://doi.org/10.1007/978-3-030-85607-6_42

Bender, E. M., & Inie, N. (2026, January 6). *We need to talk about how we talk about "AI"*. Tech Policy Press. https://techpolicy.press/we-need-to-talk-about-how-we-talk-about-ai

Bender, S. (2025). Generative-AI, the media industries, and the disappearance of human creative labour. *Media Practice and Education,* 26(2), 200–217. https://doi.org/10.1080/25741136.2024.2355597

Bird, C. (2024). Artists and AI: Creative Interactions and Tensions. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems* (Article 49, 1–6). Association for Computing Machinery. https://doi.org/10.1145/3613905.3651041

Bird, C., Ungless, E., Kasirzadeh, A. (2023). *Typology of Risks of Generative Text-to-Image Models*. 10.48550/arXiv.2307.05543

Black, J. (2023). Past, present and tackling the future of artificial intelligence (AI) in education: Maintaining agency and establishing AI laws. *Open Journal of Social Sciences, 11*, 442–464. https://doi.org/10.4236/jss.2023.117031

Black, J., & Chaput, T. (2024). A discussion of artificial intelligence in visual art education. *Journal of Computer and Communications, 12*, 71–85. https://doi.org/10.4236/jcc.2024.125005

Black, J., & Fullerton, C. (2020). Digital deceit: Fake news, artificial intelligence, and censorship in educational research. *Open Journal of Social Sciences, 8*, 71–88. https://doi.org/10.4236/jss.2020.87007

Black, J., & Fullerton, C. (2022). Navigating and combating "digital information minefields" in our era of digital deceit. *Advances in Social Sciences Research Journal, 9*, 4–20. https://doi.org/10.14738/assrj.910.13238

Boyles, D. (2018). From transmission to transaction: John Dewey's imaginative vision of teaching. *Education 3–13, 46*(4), 393–401. https://doi.org/10.1080/03004279.2018.1445473

Braidotti, R. (2019). *Posthuman knowledge*. Polity Press.

Brown, K. (2016). *Perspectives on Degas*. Routledge.

Buick, A. (2025). Copyright and AI training data—Transparency to the rescue? *Journal of Intellectual Property Law & Practice, 20*(3), 182–191. https://doi.org/10.1093/jiplp/jpae102

Capilano University. (2026). *IXD 101 – Digital media and generative AI* [Course description]. https://www.capilanou.ca/programs--courses/courses/ixd-101---digital-media-and-generative-ai/

Caramiaux, B., & Alaoui, S. F. (2022). "Explorers of unknown planets": Practices and politics of artificial intelligence in visual arts. *Proceedings of the ACM on Human–Computer Interaction, 6*(CSCW2), Article 477. https://doi.org/10.1145/3555578

Chapman, M., Kennette, L., Rhodes, C., Szewczyk, A., & Wilson, N. (2026). Durable skills in the age of AI: A study of Canadian college student perspectives. *Journal of Innovation in Polytechnic Education, 8*, 1–17. https://doi.org/10.69520/jipe.v8i5.278

Chen, X., Liao, Y., & Yu, W. (2024). Generative AI in higher art education. In *2024 6th International Conference on Computer Science and Technologies in Education* (CSTE) (pp. 135-140). 10.1109/CSTE62025.2024.00032

Chomsky, N. (2023, March 8). The false promise of ChatGPT. *The New York Times*. https://www.nytimes.com/2023/03/08/opinion/noam-chomsky-chatgpt-ai.html

Council of Ontario Universities. (2026). *Charting a path forward for Ontario universities in the age of AI*. https://ontariosuniversities.ca/wp-content/uploads/Charting-a-Path-Forward-for-Ontario-Universities-in-the-Age-of-AI-May-2026.pdf

Critical Playground. (2025, December 1). *Aesthetics of the dataset: Curating the machine's eye*. https://criticalplayground.org/aesthetics-of-the-dataset/

Dakakni, D. (2025). Artificial intelligence as a tool for data, economic and political hegemony: Releasing the djinn. *Ethics in Science and Environmental Politics, 25*, 1–10. https://doi.org/10.3354/esep00216

Dethloff, D. (Ed.). (1992). Drawing: Masters and methods: Raphael to Redon: Papers presented to the Ian Woodner Master Drawings Symposium at the Royal Academy of Arts, London. Harry N. Abrams.

Dewey, J. (1916). *Democracy and education*. The Free Press.

Dewey, J. (1938). *Experience and education*. Collier Books.

Deresiewicz, W. (2020). *The death of the artist: How creators are struggling to survive in the age of billionaires and big tech*. Henry Holt and Company.

Dierickx, L., Opdahl, A. L., Bjerknes, F., & Lindén, C. G. (2026). What is a fact in the age of generative AI? Fact-checking as an epistemological lens. *Information, Communication & Society*. Advance online publication. https://doi.org/10.1080/1369118X.2026.2630697

Doctorow, C. (2025, February 23). AI "art" and uncanniness. *Right Click Save*. https://www.rightclicksave.com/article/ai-art-and-uncanniness-cory-doctorow-artificial-intelligence-copyright

Drimmer, S. (2025, April). Machine yearning: On generative AI's structure of feeling. *Artforum*. https://www.artforum.com/features/generative-ai-structure-of-feeling-1234728310/

Emily Carr University of Art and Design. (2026). *Generative artificial intelligence: Guidelines for faculty, students, and staff* [University policy]. https://ecuad.ca/university-policies/generative-artificial-intelligence/

Emily, Y. L. (2024). Visual arts innovation in the digital age: Explore the intersection of virtual reality and art design. *Frontiers in Art Research, 6*(8), 1–6. https://doi.org/10.25236/FAR.2024.060801

Enns, C. (2024, March 29). Dissociative dreams: An interview with Jess MacCormack. *Whitehot Magazine*. https://whitehotmagazine.com/articles/dreams-interview-with-jess-maccormack/6301

Epstein, Z., Hertzmann, A., & The Investigators of Human Creativity. (2023). Art and the science of generative AI. *Science, 380*(6650), 1110–1111. https://doi.org/10.1126/science.adh4451

Fathoni, A. F. C. A. (2023). Leveraging generative AI solutions in art and design education: Bridging sustainable creativity and fostering academic integrity for innovative society. *E3S Web of Conferences, 426,* Article 01102. https://doi.org/10.1051/e3sconf/202342601102

Fawns, T. (2022). An entangled pedagogy: Looking beyond the pedagogy–technology dichotomy. *Postdigital Science and Education, 4*, 711–728. https://doi.org/10.1007/s42438-022-00302-7

Flaherty, C. (2026, June 11). Why students aren't all in on AI—and what they want from colleges. *Inside Higher Ed*. https://www.insidehighered.com/news/student-success/academic-life/2026/06/11/why-students-arent-all-ai-what-they-want-colleges

Fleischmann, K. (2024). Generative artificial intelligence in graphic design education: A student perspective. *Canadian Journal of Learning and Technology, 50(1),* 1-17. https://doi.org/10.21432/cjlt28618

Foley, J. (2024, April 15). So Adobe Firefly AI isn't as squeaky clean as it seemed. *Creative Bloq*. https://www.creativebloq.com/news/adobe-firefly-trained-on-midjourney

Gjorgjieski, V. (2024). Art redefined: AI's influence on traditional artistic expression. *International Journal of Art and Design, 1*(1), 49–60. https://doi.org/10.69648/SWWW7235

Goetze, T. S. (2024). AI art is theft: Labour, extraction, and exploitation, or, on the dangers of stochastic Pollocks. In *Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency* (pp. 186–196). https://doi.org/10.1145/3630106.3658898

Goldman, S. (2023, June 20). Adobe Stock creators aren't happy with Firefly, the company's "commercially safe" gen AI tool. *VentureBeat*. https://venturebeat.com/ai/adobe-stock-creators-arent-happy-with-firefly-the-companys-commercially-safe-gen-ai-tool

Goodfellow, I., Pouget-Abadie, J., Mirza, M., Xu, B., Warde-Farley, D., Ozair, S., Courville, A., & Bengio, Y. (2020). Generative adversarial networks. *Communications of the ACM, 63*(11), 139‑144. https://doi.org/10.1145/3422622

Grønneberg, H. L., & Alacovska, A. (2022). Critical Dataset and Machine Learning Art. *Morals & Machines, 2*(2), 22-31. https://doi.org/10.5771/2747-5174-2022-2-22

Hampton, C. (2025, December 19). AI is transforming visual culture faster than you can say "slop." *CBC Arts*. https://www.cbc.ca/arts/ai-is-transforming-visual-culture-faster-than-you-can-say-slop-9.7021370

Hartel, J., & Thomson, L. (2011). Visual approaches and photography for the study of immediate information space. *Journal of the American Society for Information Science and Technology, 62*(12), 2214–2224. https://doi.org/10.1002/asi.21618

Hao, K. (2025). *Empire of AI: Dreams and nightmares in Sam Altman's OpenAI*. Penguin Press.

Heaton, R., Low, J. H., & Chen, V. (2024). AI art education—artificial or intelligent? Transformative pedagogic reflections from three art educators in Singapore. *Pedagogies: An International Journal, 19,* 647-659. https://doi.org/10.1080/1554480x.2024.2395260

Heikkilä, M. (2022, September 15). This artist is dominating AI-generated art. And he's not happy about it. *MIT Technology Review*. https://www.technologyreview.com/2022/09/16/1059598/this-artist-is-dominating-ai-generated-art-and-hes-not-happy-about-it/

Ho, J., Jain, A., & Abbeel, P. (2020). Denoising diffusion probabilistic models. *Advances in Neural Information Processing Systems, 33*, 6840–6851.

Holmes, W. (2026). *Artificial intelligence in classrooms: Ethical dimensions* (PE 784.573). European Parliament, Policy Department for Citizens' Rights and Constitutional Affairs. https://www.europarl.europa.eu/RegData/etudes/BRIE/2026/784573/IUST_BRI(2026)784573_EN.pdf

Hosseini, M., Gao, P., & Vivas-Valencia, C. (2025). A social-environmental impact perspective of generative artificial intelligence. *Environmental Science and Ecotechnology, 23*, 100520. https://doi.org/10.1016/j.ese.2024.100520

Huang, D. (2023). Exploring the impact of artificial intelligence on arts education: Enhancing students' creative. *Lecture Notes in Education Psychology and Public Media, 32,* 152-157. https://doi.org/10.54254/2753-7048/32/20230842

Hutson, J., & Robertson, B. (2023). A matter of perspective: A case study in the use of AI-generative art in the drawing classroom. *Faculty Scholarship,* 499. https://digitalcommons.lindenwood.edu/faculty-research-papers/499

Hutson, J., Lively, J., Robertson, B., Cotroneo, P., & Lang, M. (2023). *Creative convergence: The AI renaissance in art and design.* Springer. http://ebookcentral.proquest.com/lib/york/detail.action?docID=30943643

Ingold, T. (2017). *Anthropology and/as education.* Routledge.

Irwin, R. L., & de Cosson, A. (2004). *A/r/tography: Rendering self through arts-based living inquiry*. Pacific Educational Press.

Jansen, C., & Sklar, E. (2021). Exploring co-creative drawing workflows. *Frontiers in Robotics and AI, 8*, 577770. https://doi.org/10.3389/frobt.2021.577770

Jiang, H. H., Brown, L., Cheng, J., Khan, M., Gupta, A., Workman, D., Hanna, A., Flowers, J., & Gebru, T. (2023). AI art and its impact on artists. In Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society (pp. 363–374). Association for Computing Machinery. https://doi.org/10.1145/3600211.3604681

Jiang, P., Sonne, C., Li, W., You, F., & You, S. (2024). Preventing the immense increase in the life-cycle energy and carbon footprints of LLM-powered intelligent chatbots. *Engineering, 40*, 202–210. https://doi.org/10.1016/j.eng.2024.04.002

Khanal, S., Zhang, H., & Taeihagh, A. (2025). Why and how is the power of Big Tech increasing in the policy process? The case of generative AI. *Policy and Society, 44*(1), 52–69. https://doi.org/10.1093/polsoc/puae012

Khorasgani, A. M., Amini, H., & Eskandar, G. A. (2024). Animation and mindscapes: Enhancing urban sustainability through visual narratives. *Current Urban Studies, 12,* 732-747. https://doi.org/10.4236/cus.2024.124036

Kim, S., Lee, B., & Lee, W. (2025). Investigating the diversity and stylization of contemporary user generated visual arts in the complexity entropy plane. *Scientific reports*, *15*(1), 22075. https://doi.org/10.48550/arXiv.2408.10356

Kong, L., Guo, X., & Liu, Y. (2024). The impact of digital media, virtual reality, and computer-generated art on traditional art forms. *SHS Web of Conferences, 183,* Article 01004. https://doi.org/10.1051/shsconf/202418301004

Korinek, A., & Stiglitz, J. E. (2021). Artificial intelligence, globalization, and strategies for economic development (NBER Working Paper No. 28453). National Bureau of Economic Research. https://doi.org/10.3386/w28453

Kreps, S., & Kriner, D. (2023). How AI threatens democracy. *Journal of Democracy, 34*, 122–131. https://doi.org/10.1353/jod.2023.a907693

Leonard, N. (2020). Entanglement art education: Factoring ARTificial intelligence and nonhumans into future art curricula. *Art Education, 73*(4), 22–28. https://doi.org/10.1080/00043125.2020.1746163

Leonard, N. (2021). Emerging artificial intelligence, art and pedagogy: Exploring discussions of creative algorithms and machines for art education. *Digital Culture & Education, 13*, 20–41. https://www.researchgate.net/publication/349442794

Li, P., Yang, J., Islam, M. A., & Ren, S. (2025). Making ai less' thirsty'. *Communications of the ACM, 68*(7), 54-61. https://doi.org/10.48550/arXiv.2304.03271

Lin, H., & Chen, Q. (2024). Artificial intelligence (AI)-integrated educational applications and college students' creativity and academic emotions: Students and teachers' perceptions and attitudes. BMC Psychology, 12, Article 487. https://doi.org/10.1186/s40359-024-01979-0

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation, 1986*(30), 73–84. https://doi.org/10.1002/ev.1427

Lindemann, N. F. (2025). Chatbots, search engines, and the sealing of knowledges. *AI & Society, 40*(6), 5063–5076. https://doi.org/10.1007/s00146-024-01944-w

Longpre, S., Mahari, R., Obeng-Marnu, N., Brannon, W., South, T., Kabbara, J., & Pentland, S. (2024, March). Data authenticity, consent, and provenance for AI are all broken: What will it take to fix them? *An MIT Exploration of Generative AI*. https://doi.org/10.21428/e4baedd9.a650f77d

Lovato, J., Zimmerman, J. W., Smith, I., Dodds, P., & Karson, J. L. (2024, October). Foregrounding artist opinions: A survey study on transparency, ownership, and fairness in AI generative art. In *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society* (Vol. 7, pp. 905–916). https://doi.org/10.48550/arXiv.2401.15497

Luis Jebb, M. (2025, March 3). By “giving space” to generative AI, Hollywood director Bennett Miller is creating mysterious and surreal images. *The Art Newspaper*. https://www.theartnewspaper.com/2025/03/03/hollywood-director-bennett-miller-generative-ai

Manovich, L. (2023). *Memory, draw* [Exhibition]. https://manovich.net/index.php/projects/memory-draw

Manovich, L. (2024). Unreliable memories (J. A. Ferreira, Ed.). Fundação Eugénio de Almeida, Centro de Arte e Cultura. https://manovich.net/index.php/projects/unreliable-memories

Manovich, L., & Arielli, E. (2025). Artificial aesthetics: Generative AI, art and visual media. https://manovich.net/index.php/projects/artificial-aesthetics

Mazzone, M., & Elgammal, A. (2019). Art, creativity, and the potential of artificial intelligence. *Arts, 8,* Article 26. https://doi.org/10.3390/arts8010026

McBride Contemporain. (2025). *Autoeffigies: Beth Frey* [Exhibition]. https://mcbridecontemporain.com/exposition-2025-autoeffigies-beth-frey/

Means, T. (2026, May 4). What students want is not what we are offering. The Collaboration Chronicle: Human+AI in Education. https://tawnyameans.substack.com/p/what-students-want-is-not-what-we

Merchant, B. (2023). *Blood in the machine: The origins of the rebellion against big tech*. Little, Brown.

Meyrat, A. (2023). What the writers strike means for entertainment today. *Acton Institute*. https://rlo.acton.org/archives/124474-what-the-writers-strike-means-for-entertainment-today.html

Miller, J. P., & Seller, W. (1985). *Curriculum: Perspectives and practice*. Longman.

MIT News. (2025, September 29). *Responding to the climate impact of generative AI*. https://news.mit.edu/2025/responding-to-generative-ai-climate-impact-0930

Murray, M. D. (2023). Generative AI art: Copyright infringement and fair use. *SMU Science and Technology Law Review, 26,* 259-278. https://doi.org/10.25172/smustlr.26.2.4

Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. New York University Press. https://doi.org/10.2307/j.ctt1pwt9w5

OCAD University. (2025). *Statement on the use of generative artificial intelligence* [University policy]. https://www.ocadu.ca/about-ocad-u/our-story/policies/statement-use-generative-artificial-intelligence

Organisation for Economic Co-operation and Development. (2026). *OECD: digital education outlook 2026: Exploring effective uses of generative AI in education*. https://doi.org/10.1787/062a7394-en

O'Brien, M. (2024, August 30). Child abuse images removed from AI image-generator training dataset. *Associated Press*. https://apnews.com/article/ai-image-generators-child-sexual-abuse-laion-stable-diffusion-2652b0f4245fb28ced1cf74c60a8d9f0

Park, Y. S. (2023). Creative and critical entanglements with AI in art education. *Studies in Art Education, 64*, 406–425. https://doi.org/10.1080/00393541.2023.2255084

Pavlik, J., & Pavlik, O. (2024). Art education and generative AI: An exploratory study in constructivist learning and visualization automation for the classroom. *Creative Education, 15*, 601–616. https://doi.org/10.4236/ce.2024.154037

Pittis, D. (2023, April 30). Canadian artificial intelligence leader Geoffrey Hinton piles on fears of computer takeover. *CBC News*. https://www.cbc.ca/news/business/ai-doom-column-don-pittis-1.6829302

Poole, D., Mackworth, A., & Goebel, R. (1998). *Computational intelligence: A logical approach*. Oxford University Press.

Porquet, J., Wang, S., & Chilton, L. B. (2025). Copying style, extracting value: Illustrators' perception of ai style transfer and its impact on creative labor. In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (pp. 1-16). https://doi.org/10.48550/arXiv.2409.17410

Rombach, R., Blattmann, A., Lorenz, D., Esser, P., & Ommer, B. (2022). High-resolution image synthesis with latent diffusion models. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (pp. 10674–10685). https://doi.org/10.1109/CVPR52688.2022.01042

Sáez-Velasco, S., Alaguero-Rodríguez, M., Delgado-Benito, V., & Rodríguez-Cano, S. (2024). Analysing the impact of generative AI in arts education: A cross-disciplinary perspective of educators and students in higher education. *Informatics, 11*, 37. https://doi.org/10.3390/informatics11020037

Selwyn, N. (2024). On the limits of artificial intelligence (AI) in education. *Nordisk tidsskrift for pedagogikk og kritikk, 10*, 3–14. http://doi.org/10.23865/ntpk.v10.6062

Simmons, S. III. (2019). Drawing in the digital age: Observations and implications for education. *Arts, 8*(2), 33. https://doi.org/10.3390/arts8010033

Sims, A. (2024). *From creation to curriculum: Examining the role of generative AI in arts universities*. https://arxiv.org/abs/2412.16531

Slimi, Z., & Villarejo Carballido, B. (2023). Navigating the ethical challenges of artificial intelligence in higher education: An analysis of seven global AI ethics policies. *TEM Journal, 12*, 590–602. https://doi.org/10.18421/TEM122-02

Springgay, S., Irwin, R. L., & Kind, S. W. (2005). A/r/tography as living inquiry through art and text. *Qualitative Inquiry, 11*(6), 897–912. https://doi.org/10.1177/1077800405280696

TechCrunch. (2024, June 11). Spawning wants to build more ethical AI training datasets. *TechCrunch*. https://techcrunch.com/2024/06/11/spawning-wants-to-build-more-ethical-ai-training-data-sets/

UNESCO. (2026, April 9). AI large language models: New report shows small changes can reduce energy use by 90%. https://www.unesco.org/en/articles/ai-large-language-models-new-report-shows-small-changes-can-reduce-energy-use-90

Van Den Broek, E. (2025). Unpacking AI at work: Data work, knowledge work, and values work. *Information and Organization, 35*(3), 100584. https://doi.org/10.1016/j.infoandorg.2025.100584

Vanderstraeten, R. (2003). Dewey's Transactional Constructivism. *Journal of Philosophy of Education. 36.* 233-246. https://doi.org/10.1111/1467-9752.00272

Vartiainen, H., Tedre, M., & Jormanainen, I. (2023). Co-creating digital art with generative AI in K-9 education: Socio-material insights. *International Journal of Education Through Art, 19,* 405-423. https://doi.org/10.1386/eta_00143_1

Waikar, S. (2025, May 20). When AI-generated art enters the market, consumers win—and artists lose. *Stanford Graduate School of Business Insights*. https://www.gsb.stanford.edu/insights/when-ai-generated-art-enters-market-consumers-win-artists-lose

Weber, S., & Stanton, C. (2019, October 2). The world isn't ready for AI to upend the global economy. *Carnegie Endowment for International Peace*. https://carnegieendowment.org/2019/10/02/world-isn-t-ready-for-ai-to-upend-globaleconomy-pub-79961

Williamson, B. (2024). The social life of AI in education. *International Journal of Artificial Intelligence in Education, 34*(1), 97–104. https://doi.org/10.1007/s40593-023-00342-5

Yoon, H. (2026, April 14). Listening to skepticism: What faculty concerns about generative AI reveal. *EDUCAUSE Review.* https://er.educause.edu/articles/2026/4/listening-to-skepticism-what-faculty-concerns-about-generative-ai-reveal

Zewe, A. (2025, January 17). Explained: Generative AI's environmental impact. *MIT News*. https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117

Zhou, E., & Lee, D. (2024). Generative artificial intelligence, human creativity, and art. *PNAS Nexus, 3*(3), Article pgae052. https://doi.org/10.1093/pnasnexus/pgae052

Appendices

Appendix A: AI Image Generators – Comparative Reference Chart (2026)

Appendix B: Consent Forms

Appendix C: Surveys

Appendix D: TCPS 2: Core 2022 Certificate

Appendix E: Course Outline: FA/VISA 3080

Appendix F: Course Outline: DRAW 5301

Appendix G: Process Book

AI Image Generators — Comparative Reference Chart (2026)

For visual arts & AI education research | Jay Dart, York University | Updated: June 2026 | Sources: company docs, Wikipedia, TechCrunch, Adobe, BFL, Midjourney docs

Tool / Brand Name	Developer / Company	Country	Major Investors	Initial Release Year	Version History / Lineage	Current Model (2026)	Training Dataset	Dataset Consent Model	Current Status	Access Model	Usage Scale	House Style / Aesthetic	Special / Distinctive Features	Ethical Dataset Flag
ChatGPT Image (GPT Image 1 / GPT-4o)	OpenAI	USA	Microsoft (~$13B+), Khosla Ventures, Tiger Global	2021	DALL·E 1 (Jan 2021) → DALL·E 2 (Apr 2022) → DALL·E 3 (Oct 2023) → GPT-4o native image gen (Mar 2025) → GPT Image 1 / ChatGPT Image (2025). DALL·E brand retired.	GPT Image 1 (via ChatGPT / API)	Proprietary web-scraped + licensed data (CLIP-filtered); DALL·E models trained on filtered Common Crawl / LAION subsets	Proprietary / Undisclosed	Embedded in ChatGPT & API; standalone DALL·E brand discontinued	Freemium (ChatGPT Free/Plus/Pro); API (pay-per-use)	700M+ images in first week of GPT-4o rollout (Mar 2025); 130M users	Versatile — photorealistic, painterly, flat design; strong instruction-following	Inpainting, outpainting, prompt adherence, text rendering improved in GPT Image 1; deeply integrated with ChatGPT conversation	⚠️ **Disputed**
Midjourney (V7 default / V8.1 Alpha)	Midjourney Inc.	USA	Self-funded / bootstrapped (no VC funding disclosed)	2022	V1 (Mar 2022) → V2 → V3 → V4 → V5 → V5.1/5.2 → V6 → V6.1 → V7 (Apr 2025, default as of Jun 2025) → V8.0 Alpha (Mar 2026) → V8.1 Alpha (Apr 2026, default Jun 2026)	V8.1 (default June 2026); V7 still available	Scraped internet images; 16,000+ artists' names in training data (leaked 2024); dataset details withheld under court order	Scraped / Undisclosed	Standalone platform (Discord + web); active product	Subscription only ($10/$30/$60/$120/mo); no free tier	21M+ registered users (Mar 2025); ~1.2–2.5M daily active; $500M ARR	Painterly, cinematic, highly aesthetic; often dreamy / editorial	Style references (Sref), personalization profiles, Niji mode (anime), Omni Reference, Draft Mode, native 2K (V8.1), ~4s generation speed	🔴 Scraped / **Contested**
Adobe Firefly (Image Model 5)	Adobe Inc.	USA	Publicly traded (ADBE); no external AI investors	2023	Firefly beta (Mar 2023) → Image Model 1 (Sep 2023) → Image Model 2 (Nov 2023) → Image Model 3 (Apr 2024) → Image Model 4 / 4 Ultra (Apr 2025, Adobe MAX London) → Image Model 5 (Oct 2025, Adobe MAX LA)	Firefly Image Model 5 (Oct 2025); also hosts partner models (FLUX, Imagen, GPT Image, Ideogram, Runway, Kling)	Adobe Stock (licensed), public domain, openly licensed content; Stock contributors compensated, contested consent.	Licensed / Consent-Based (contested)	Standalone web app + embedded in Photoshop, Illustrator, Premiere Pro, InDesign, Express; enterprise API	Free tier (limited credits); Creative Cloud subscription; enterprise API	24B+ assets generated by May 2025; ~1.5B new assets/month; 29% market share	Clean, professional, commercially oriented; photorealistic or polished design styles	Commercially safe (licensed data); generative fill/expand in Photoshop; layered editing (Model 5); custom models (enterprise); Content Credentials watermarking; Generate Soundtrack & Speech; multi-model hub	⚠️ **Licensed / Consent-Based (contested)**
FLUX.2 (Black Forest Labs)	Black Forest Labs (BFL)	Germany (Freiburg)	$300M round (Nov 2025) led by undisclosed VCs; earlier seed from General Catalyst, A16Z	2024	FLUX.1 family (Aug 2024): [schnell], [dev], [pro] → FLUX.1 Kontext (2025) → FLUX.2 family (Nov 2025): [pro], [flex], [dev] 32B, [klein]	FLUX.2 [pro] / [dev] / [flex] (Nov 2025); powers Grok, Adobe Firefly partner model, Meta, others	Proprietary; built by former Stable Diffusion team. Training data details not fully disclosed; 'Open Core' ethos with open weights	Proprietary / Undisclosed	API + open-weight model (Hugging Face); used as backend by many platforms	Open-weight (dev/klein); API (pro/flex); embedded in third-party platforms	FLUX.1 [dev] described as 'most popular open image model globally'; exact monthly figures not published	Highly photorealistic; strong prompt adherence; excellent text rendering; versatile	32B parameter open-weight model; up to 10 reference images; 4MP output; best-in-class text/typography; JSON structured prompts; multi-reference character consistency; Mistral-3 hybrid architecture	⚠️ **Proprietary / Undisclosed**
Stable Diffusion (SD 3.5 / Stability AI)	Stability AI	UK / USA	$101M (Oct 2022, Coatue + Lightspeed); $80M rescue round (Oct 2024, Sean Parker, Eric Schmidt, others); ongoing financial difficulties	2022	SD 1.x (Aug 2022) → SD 2.x (Nov 2022) → SDXL (Jul 2023) → SD 3 (Jun 2024) → SD 3.5 / 3.5 Large Turbo (Oct 2024). Core team left to found Black Forest Labs (2024).	Stable Diffusion 3.5 Large / 3.5 Turbo	LAION-5B (2.3B+ web-scraped image-text pairs); SD 3 used proprietary filtered dataset	Scraped / Undisclosed	Open source; company financially troubled; community continues via CivitAI, ComfyUI, A1111	Open source (free download); Stability AI API (paid); platforms like DreamStudio	10M+ monthly users at peak; 10B+ images generated historically	Highly variable; depends heavily on fine-tunes and LoRAs; versatile	Fully open-source weights; massive fine-tune ecosystem (CivitAI); local/offline use; ControlNet support; highly customizable	🔴 Scraped / **Contested**
Google Nano Banana 2 (Gemini Image)	Google DeepMind	USA	Alphabet subsidiary (publicly traded: GOOGL)	2022	Imagen 1 (May 2022, research only) → Imagen 2 (Dec 2023) → Imagen 3 (2024) → Gemini 2.0 Flash image gen (late 2024) → Nano Banana (Aug 2025, went viral) → Nano Banana 2 (Feb 2026)	Nano Banana 2 (Feb 2026); also Nano Banana Pro	Proprietary Google datasets; uses licensed and internally curated data	Proprietary / Undisclosed	Embedded in Gemini AI assistant, Google Search, Workspace; API via Gemini API	Free (via Gemini); API (Gemini API, pay-per-use); Google One AI Premium	Viral growth Aug–Sep 2025; exact monthly figures not published	Versatile; strong photorealism and subject consistency; improved world knowledge	Deep Google knowledge integration; production-ready specs (Feb 2026); subject consistency across generations; fast (Flash architecture); available in Gemini API for developers	⚠️ **Proprietary / Undisclosed**
Ideogram 2.0	Ideogram AI	Canada (Toronto)	$80M Series A (May 2024, a16z + others); University of Waterloo alumni-founded	2023	Ideogram 1.0 (Aug 2023) → Ideogram 1.5 → Ideogram 2.0 (Feb 2024) → Ideogram 2.0 Turbo; available as partner model in Adobe Firefly	Ideogram 2.0 / 2.0 Turbo	User-generated content used for training (per privacy policy); original training data not fully disclosed	Mixed (Licensed + Scraped)	Standalone web app; API; partner model in Adobe Firefly	Free tier (25 slow generations/day); paid plans from $8/mo	Not publicly disclosed	Clean, design-oriented; photorealistic and graphic styles	Best-in-class text rendering (typography, logos, signage); strong color and composition control; Magic Prompt enhancement	⚠️ **Mixed / Undisclosed**
Bria AI (BRIA 2.3 / Fibo)	Bria AI	Israel	Series B (Mar 2025); investors include venture firms; trained with Getty Images, Alamy, Envato	2023	BRIA 1.x (2023) → BRIA 2.0 → BRIA 2.3 (2024) → Fibo (proprietary deterministic foundation model, 2025)	BRIA 2.3 / Fibo (enterprise)	100% licensed: Getty Images, Alamy, Envato, other licensed stock providers; artists compensated via revenue sharing	Licensed / Consent-Based	Enterprise API; B2B focus; available via Layer.ai and other platforms	Enterprise API / B2B; not a consumer product	Not publicly disclosed (enterprise-only)	Commercial/advertising quality; clean, professional, brand-safe	Only major generator trained exclusively on licensed data with artist compensation; bias mitigation; enterprise-grade; content credentials; controllable outputs	✅ **Licensed / Consent-Based**
Leonardo AI (Canva Dream Lab)	Leonardo AI (acquired by Canva, 2024)	Australia	Canva (acquirer, 2024); previously venture-backed	2022	Leonardo.ai (2022, standalone) → acquired by Canva (Oct 2024) → powers Canva Dream Lab (Oct 2024)	Leonardo Phoenix (latest); also offers SDXL, FLUX.1 fine-tunes	Mix of licensed and fine-tuned data; full dataset not disclosed	Mixed (Licensed + Scraped)	Standalone (leonardo.ai) + embedded as Canva Dream Lab	Free tier (150 tokens/day); paid from $12/mo; embedded in Canva	4M+ registered users (Leonardo standalone); Canva has 190M+ users	Game art, concept art, character design; versatile with fine-tune models	Extensive fine-tune model library; ControlNet; 3D texture generation; motion tool; AI Canvas; strong for game and character art	⚠️ **Mixed / Undisclosed**
Perplexity AI Image Generation	Perplexity AI	USA	$500M+ raised (Jeff Bezos, NVIDIA, SoftBank, IVP, NEA)	2024	Integrated image generation added to Perplexity platform (2024); uses multiple backend models including FLUX and others	Proprietary / multi-model (FLUX-based + others)	Uses third-party models (FLUX etc.); Perplexity's own training data undisclosed	Mixed (Licensed + Scraped)	Embedded in Perplexity search/assistant platform	Free tier; Perplexity Pro ($20/mo)	Perplexity: 15M+ MAU (2025); image-specific volume not disclosed	Versatile — inherits style of underlying model	Research-integrated image generation; conversational editing; multi-model backend; direct use in research workflows	⚠️ **Mixed / Undisclosed**
NightCafe Studio	NightCafe Studio Pty Ltd	Australia	Bootstrapped / small angel round	2019	NightCafe (2019, neural style transfer) → added VQGAN+CLIP (2021) → Stable Diffusion (2022) → SDXL, DALL·E → multi-model hub (2023–present)	Multi-model: FLUX.1, SDXL, Stable Diffusion 3, Leonardo, others	Uses third-party models; no proprietary training	Mixed (Licensed + Scraped)	Standalone platform; active community	Free (limited credits); paid subscription + credit packs	~5M+ images generated/month (estimated); large community	Depends on model selected; known for painterly/artistic defaults	Largest AI art community platform; social features; prompt marketplace; supports 10+ models; accessible to beginners	⚠️ **Mixed (inherits from models used)**
Playground AI (Playground v3)	Playground AI	USA	Andreessen Horowitz (a16z) led Series A; Spark Capital	2022	Playground AI (2022) → Playground v1 → v2 → Playground v2.5 (Feb 2024) → Playground v3 (2025)	Playground v3	Proprietary; details not publicly disclosed	Proprietary / Undisclosed	Standalone web platform; Figma-style canvas interface	Free (500 img/day); paid Pro plan	Not publicly disclosed	Design-oriented; clean, high-quality aesthetics; strong for graphic design work	Figma-like canvas interface; design workflow integration; strong typography; image editing; popular with designers	⚠️ **Proprietary / Undisclosed**
Runway Gen-3 Alpha (Image component)	Runway ML	USA	Google, Salesforce Ventures, NVIDIA; $141M Series C (2023); $308M Series D (2024)	2022	Runway Gen-1 (2022) → Gen-2 (2023) → Gen-3 Alpha (2024) → Gen-3 Turbo	Gen-3 Alpha / Gen-3 Turbo (primarily video; image gen included)	Proprietary; sued by major studios including Getty Images	Scraped / Undisclosed	Standalone platform; image + video focus; available as Firefly partner model	Free (limited credits); paid from $12/mo	Not publicly disclosed	Cinematic, film-quality; strong for motion/video adjacent work	Best-in-class video generation (primary focus); image-to-video; motion brush; AI magic tools; content-aware editing; widely used in film/TV	🔴 Scraped / **Contested**
Kling Image (Kuaishou)	Kuaishou Technology	China	Publicly traded (HKG: 1024); Tencent is major shareholder	2024	Kling 1.0 (Jun 2024, video-first) → Kling 1.5 → Kling 2.0 (2025) → image generation added	Kling 2.0 (image + video)	Proprietary (internal Kuaishou platform data); not disclosed internationally	Proprietary / Undisclosed	Standalone (klingai.com); also available via Adobe Firefly partner models	Free tier; paid subscription; API	Not publicly disclosed internationally	Photorealistic, cinematic; strong character consistency	Video-first (image component strong); available in Adobe Firefly as partner; 5-sec / 10-sec video clips; high realism; growing international user base	⚠️ **Proprietary / Undisclosed**

Legend, Key Terms & Research Notes

DATASET CONSENT MODEL — KEY	
✅ Licensed / Consent-Based	Training data is fully licensed; artists/creators compensated
⚠️ Mixed (Licensed + Scraped)	Combination of licensed and unconsented scraped data
⚠️ Proprietary / Undisclosed	Dataset not publicly disclosed; likely scrapes + internal data
🔴 Scraped / Contested	Scraped without consent; subject to lawsuits or artist complaints

ETHICAL FLAG — KEY	
✅ Licensed / Consent-Based	Commercially safe; artist compensation in place
⚠️ Disputed	Contested or unclear; active or past legal issues
🔴 Scraped / Contested	Active lawsuits or strong artist community opposition

KEY TERMS	
Freemium	Free tier with paid upgrades; may include usage credits
Open Source / Open Weight	Model weights publicly available; can be run locally
API	Programmable access; used by developers and other platforms
LoRA / Fine-tune	Method of customizing open-source models on specific styles/data
Content Credentials	Metadata standard (C2PA) that watermarks AI-generated content; Adobe-led
ControlNet	Add-on for Stable Diffusion allowing structural image control

RESEARCH NOTES	
Note 1	Midjourney v8.1 became the default model in June 2026; v8.0 Alpha is being retired
Note 2	Adobe Firefly Image Model 5 (Oct 2025) introduced layered editing and 4MP native resolution
Note 3	FLUX.2 (Nov 2025) introduced multi-reference support (up to 10 images) and 4MP output; 32B open-weight model
Note 4	Google's 'Nano Banana' name refers to the Gemini 2.5 Flash Image model (Aug 2025); Nano Banana 2 released Feb 2026
Note 5	DALL·E as a standalone named product was retired in March 2025; GPT Image 1 (via ChatGPT) replaced it
Note 6	Canva Dream Lab is powered by Leonardo AI, which Canva acquired in October 2024
Note 7	Bria AI and Adobe Firefly are the only major generators with fully licensed training datasets — relevant for ethical AI in arts education

SOURCES	
Adobe	blog.adobe.com; helpx.adobe.com/firefly; TechCrunch Oct 2025
Black Forest Labs	bfl.ai/blog/flux-2; NVIDIA blog Nov 2025; Wikipedia
Midjourney	docs.midjourney.com; updates.midjourney.com; GyanDostAI (Apr 2026)
Stability AI	aiwiki.ai; gitnux.org/stable-diffusion-statistics; Wikipedia
OpenAI / ChatGPT Image	morphed.app/stats/gpt-image-statistics; morphed.app/stats/dall-e-statistics
Google Nano Banana	blog.google/innovation-and-ai; developers.googleblog.com; Reuters Feb 2026
Ideogram	uwaterloo.ca; conductatlas.com; verifywise.ai
Bria AI	bria.ai/responsible-ai; stockphotosecrets.com; TechCrunch Mar 2025
Midjourney legal	Art Newspaper (Jan 2024); CNN (Jun 2025); Bloomberg Law (Jun 2025)
General	zapier.com; zdnet.com; aimlapi.com; morphed.app; companieshistory.com

Informed Consent Form
(Action Research)

Date: May 9, 2025

Study Name: Exploring AI Image Generators for Visual Research Methods in Post-Secondary Drawing Education

Researchers: Jay Dart, Master's Student, (jaydart@yorku.ca), Interdisciplinary Studies. Supervisors: Jessica Campbell (jcampb5@yorku.ca), Sava Saheli Singh (sava@edu.yorku.ca), Kurt Thumlert (kthumlert@edu.yorku.ca)

Purpose of the Research: The research contributes to the growing studies regarding the impacts of recent innovations in AI (Artificial Intelligence) technology on society and its effects on pedagogy specifically within the visual arts. This project will address critical issues related to AI image generators so that students, educators, and artists can recognize its limitations, assess risks, be aware of the ethical concerns, and identify solutions and alternatives as they consider potential benefits that this innovative tool might offer. The data from this research will form my thesis that addresses the need for more critical research into ethical opportunities for students who are open to exploring whether GenAI can enhance their ideation and drawing practices while maintaining agency and developing a personal approach. The outputs from this research will include a written thesis paper and a publication highlighting a variety of creative approaches and experiences using novel AI image generation technology.

What You Will Be Asked to Do in the Research: If you agree to participate in this arts-based action research study, you will be asked to complete one course assignment for DRAW5301 Drawing (Explorative) with the incorporation of artificial intelligence (AI) image generators as creative tools. These AI-incorporated assignments will have similar demands as for those who choose not to use AI. For this research, you will be asked to:

- Create original sketches and artworks using manual methods and traditional materials that respond to visual research methods incorporating AI-generated images for an assignment on the theme of Space & Place. This assignment requires students to demonstrate an advanced understanding of how to conceptualize compelling compositions by exploring visual research sources and experimenting with collage/remix techniques.
- Keep a process journal or portfolio documenting your creative decisions, reflections, and any challenges or insights you experience while working with AI tools.
- Allow your artwork, journal entries, and feedback to be analyzed for research purposes after the completion of the course. Your identity will be kept confidential in all reports and presentations unless you give consent to waive anonymity below.

The estimated time commitment required of participants for this part of the research is approximately one hour as extra time above and beyond the requirements to complete course-work could be necessary to become familiar and experiment with the AI image generator application instead of using more familiar visual research methods.

Risks and Discomforts: Participation in this research involves minimal risk, meaning that the risks of harm anticipated in the proposed research are not greater than those ordinarily encountered in daily life. Potential risks include mild emotional discomfort from reflecting on personal creative processes or discussing experiences with AI tools. Additionally, the dual role of instructor and investigator creates a risk of potential conflict of interest and coercion, as students may perceive pressure to participate or modify responses to align with perceived expectations. To mitigate these risks, participation is voluntary, and participants may withdraw at any time without penalty. Participants' decision to participate or withdraw will not affect grades or standing in this course; the researcher-instructor will not know who is participating until after grades are finalized at which time he will be granted access to the collected data by the study administrator. If you experience some emotional discomfort regarding your participation, you are invited to contact the instructor-researcher at the e-mail address listed in the top section of this form to discuss your reactions and seek options from the instructor-researcher for easing discomfort. Additionally, you may contact support services at Durham College including the student advisor for your program, Stephanie Thomson (Stephanie.Thomson@durhamcollege.ca), or the Campus Health and Wellness Centre (chwc@durhamcollege.ca). You may also contact the study administrator, Dr. Steven Evans, either by phone at (905) 721-2000 ext. 2643 or by email at steve.evans@durhamcollege.ca, if you wish to discuss concerns or withdraw from the study. You may withdraw from the study at any time prior to the final class of the semester. If you withdraw, your data (surveys and consent forms) will be shredded and disposed by the administrator prior to the date on which the researcher-instructor gains access to the collected data.

Benefits of the Research and Benefits to You: Participants will gain firsthand experience with cutting-edge AI tools that may include possible benefits of promoting skill hybridization, ethical awareness, and creative agency in the context of AI-integrated art practices. Involvement in the study provides opportunities for collaborative learning, peer and instructor feedback, and reflective practice, which can enrich participants' artistic development, academic growth, and awareness of this innovative tool. Your experiences and insights will help inform best practices for integrating AI image generators into visual arts education and contribute to a better understanding of how artists can critically and creatively engage with new technologies. Your participation is voluntary, and you may withdraw from the study at any time without penalty. There are no inducements for participating in this research.

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 particular questions will not influence the nature of the ongoing relationship you may have with the instructor-researcher either now, or in the future.

Confidentiality: While student work must be assessed during the course based on course learning outcomes, AI outputs, including artwork and journals, from participants who consent to include their work in the proposed study will have additional analysis after final grades have been submitted for the purposes of this research. All information you supply during the research will be held in confidence and your name will not appear in any report or publication of the research. Participants could potentially be identified through details included in their work; however, only the researcher and the supervisors listed in the top section of this form will have access to these details and any identifying details will not be included in any report or publication of the research unless consent has been provided below. 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 the researcher Jay Dart by e-mail jaydart@yorku.ca*. You can also contact the third-party, Dr. Steven Evans, either by phone at (905) 721-2000 ext. 2643 or by email at steve.evans@durhamcollege.ca. You can also contact the Interdisciplinary Studies graduate program office either by phone at (416) 736-5126 or by email at gradinst@yorku.ca. *This research has received ethics review and approval 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 Manager, Research Ethics in the Office of Research Ethics, York University (e-mail ore@yorku.ca). This office oversees the ethical conduct of research studies and is not part of the study team. Everything that you discuss will be kept confidential*.

Durham College's Research Ethics Board has approved this study under file number 332-2425.

Legal Rights and Signatures:

I *(fill in your name here)*_____, consent to participate in *(insert study name here)*_____ conducted by *(insert investigator name here)*_____.

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_____ **Date**_____
Participant

Signature_____ **Date**_____
Principal Investigator

Additional consent

1. **Consent to use of creative outputs**

   I consent to the use of de-identified creative outputs including sketches, artworks, and statements from journals and artist statements within any final reports/ publications of the research? Y / N

Informed Consent Form
(Post-Research Survey)

Date: May 9, 2025

Study Name: Exploring AI Image Generators for Visual Research Methods in Post-Secondary Drawing Education

Researchers: Jay Dart, Master's Student, (jaydart@yorku.ca), Interdisciplinary Studies. Supervisors: Jessica Campbell (jcampb5@yorku.ca), Sava Saheli Singh (sava@edu.yorku.ca), Kurt Thumlert (kthumlert@edu.yorku.ca)

Purpose of the Research: The research contributes to the growing studies regarding the impacts of recent innovations in AI (Artificial Intelligence) technology on society and its effects on pedagogy specifically within the visual arts. This project will address critical issues related to AI image generators so that students, educators, and artists can recognize its limitations, assess risks, be aware of the ethical concerns, and identify solutions and alternatives as they consider potential benefits that this innovative tool might offer. The data from this research will form my thesis that addresses the need for more critical research into ethical opportunities for students who are open to exploring whether GenAI can enhance their ideation and drawing practices while maintaining agency and developing a personal approach. The outputs from this research will include a written thesis paper and a publication highlighting a variety of creative approaches and experiences using novel AI image generation technology.

What You Will Be Asked to Do in the Research: If you agree to participate in this part of the study, you will be asked to complete:

- a brief survey at the end of the course about your experiences, attitudes, and perceptions regarding AI in artmaking.

The estimated time commitment required of participants to complete this part of the research is approximately 15-30 minutes.

Risks and Discomforts: Participation in this research involves minimal risk, meaning that the risks of harm anticipated in the proposed research are not greater than those ordinarily encountered in daily life. Potential risks include mild emotional discomfort from reflecting on personal creative processes or discussing experiences with AI tools. Additionally, the dual role of instructor and investigator creates a risk of potential conflict of interest and coercion, as students may perceive pressure to participate or modify responses to align with perceived expectations. To mitigate these risks, participation is voluntary, and participants may withdraw at any time without penalty. Participants' decision to participate or withdraw will not affect grades or standing in this course; the researcher-instructor will not know who is participating until after grades are finalized at which time he will be granted access to the collected data by the study administrator. If you experience some emotional discomfort regarding your participation, you are invited to contact the instructor-researcher at the e-mail address listed in the top section of this form to discuss your reactions and seek options from the instructor-researcher for easing discomfort. Additionally, you may contact support services at Durham College including the student advisor for your program, Stephanie Thomson (Stephanie.Thomson@durhamcollege.ca), or the Campus Health and Wellness Centre (chwc@durhamcollege.ca). You may also contact the study administrator, Dr. Steven Evans, either by phone at (905) 721-2000 ext. 2643 or by email at steve.evans@durhamcollege.ca, if you wish to discuss concerns or withdraw from the study. You may withdraw from the study at any time prior to the final class of the semester. If you withdraw, your data (surveys and consent forms) will be shredded and disposed by the administrator prior to the date on which the researcher-instructor gains access to the collected data.

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Confidentiality: The survey will not include your name unless additional consent has been provided below. The survey will be anonymized with a code to be used for correlating to the participants' pre-survey. All information you supply during the research will be held in confidence and your name will not appear in any report or publication of the research. A third-party administrator will conduct this survey on the day of our last scheduled class and keep possession of the completed surveys in a locked cabinet until after grades have been submitted at the conclusion of the course. Participants could potentially be identified through details included in the survey; however, only the researcher and the supervisors listed at the beginning of this form will have access to these details and any identifying details will not be included in any report or publication of the research. Confidentiality will be provided to the fullest extent possible by law.

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Durham College's Research Ethics Board has approved this study under file number 332-2425.

Legal Rights and Signatures:

I *(fill in your name here)* _____, consent to participate in *(insert study name here)* _____ _____ conducted by *(insert investigator name here)* _____.

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 _____ **Date** _____
Participant

Signature _____ **Date** _____
Principal Investigator

Additional consent

1. **Consent to waive anonymity**

I, _____ consent to the inclusion of my name in the survey. Only the researcher and the supervisors listed at the beginning of this form will have access to these details and any identifying details will not be included in the outputs from this research. Names will only be used to correlate participants survey data with their creative outputs for research purposes.

2. **Consent to use of quotes**

I consent to the use of de-identified quotations from my survey in any final reports/ publications of the research? Y / N

Informed Consent Form
(Pre-Survey)

Date: May 9, 2025

Study Name: Exploring AI Image Generators for Visual Research Methods in Post-Secondary Drawing Education

Researchers: Jay Dart, Master's Student, (jaydart@yorku.ca), Interdisciplinary Studies. Supervisors: Jessica Campbell (jcampb5@yorku.ca), Sava Saheli Singh (sava@edu.yorku.ca), Kurt Thumlert (kthumlert@edu.yorku.ca)

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Confidentiality: The survey will not include your name unless additional consent has been provided below. The surveys will be anonymized with a code to be used for correlating to the participants' post-survey. All information you supply during the research will be held in confidence and your name will not appear in any report or publication of the research. A third-party administrator will conduct this survey prior to the beginning of the research and keep possession of the completed surveys in a locked cabinet until after grades have been submitted at the conclusion of the course. Participants could potentially be identified through details included in the survey; however, only the researcher and the supervisors listed at the beginning of this form will have access to these details and any identifying details will not be included in any report or publication of the research. Confidentiality will be provided to the fullest extent possible by law.

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Durham College's Research Ethics Board has approved this study under file number 332-2425.

Legal Rights and Signatures:

I *(fill in your name here)* _____, consent to participate in *(insert study name here)* _____ _____ conducted by *(insert investigator name here)* _____.

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 _____ **Date** _____
Participant

Signature _____ **Date** _____
Principal Investigator

Additional consent

1. **Consent to waive anonymity**

I, _____ consent to the inclusion of my name in the survey. Only the researcher and the supervisors listed at the beginning of this form will have access to these details and any identifying details will not be included in the outputs from this research. Names will only be used to correlate participants survey data with their creative outputs for research purposes.

2. **Consent to use of quotes**

I consent to the use of de-identified quotations from my survey in any final reports/ publications of the research? Y / N

Research Title: Exploring AI Image Generators for Visual Research Methods in Post-Secondary Drawing Education

Researcher: Jay Dart jaydart@yorku.ca

Participant #: _____

Post-Survey: Shifts in Attitudes Toward AI's Role in Ideation and Process Work

Instructions: Please answer the following questions honestly. Your responses are confidential and will not affect your grade or standing in this course.

For this survey, generative artificial intelligence (AI) is defined a type of artificial intelligence that generates content such as text, images, code, audio, and video in response to user inputs called prompts.

Section 1: Post-Course Experience with AI Image Generators

1. Did you use Generative AI content systems for any of your projects in DRAW5301?

   - ❑ Yes
   - ❑ No

   If yes, which AI systems did you use? (Please list the specific apps you used)

   - ❑ Text Generator (ie. ChatGPT): _____
   - ❑ Image Generator (ie. Firefly): _____
   - ❑ Other (ie. Audio, Video, 3D): _____

   Please explain for what purposes or course requirements you used these Generative AI systems for: Which projects? Which requirements (ie. ideation, reference images, artist statements)

   If you chose <u>not</u> to use AI, please explain why.

   _____

   _____

   _____

   _____

   _____

2. Describe your process for Project #3 **with or without** using AI image generators.

What kinds of visual research did you use?

- ❑ Personal photo archives
- ❑ Online sources: ___Google Images ___Pinterest ___Stock Image Site ___Public Domain Archives
  Other online sources: _____
- ❑ Printed magazine, newspapers
- ❑ AI-generated images

Did you create hand-crafted, cut & paste collages? Yes / No
Did you create digital composites using Photoshop or a similar app? Yes / No
Did you use any style presets or tools like generative fill when using AI image generators? Yes / No

How useful were your visual reference materials for the final drawing (ie. details, tones, colours, textures, perspective, proportions)? Did you draw directly from the references for some or most details? Did you add details that were not from reference images?

_____

_____

_____

_____

_____

Section 2: Perceptions and Learning

Please rate your agreement with the following statements (1 = Strongly Disagree, 5 = Strongly Agree) after completing your projects for DRAW5301. Circle N/A for Not Applicable if you did not use generative AI.

1. I believe using AI image generators enhanced my ability to access visual references.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree* *N/A*

2. I became more comfortable prompting, critiquing or modifying AI-generated images.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree* *N/A*

3. I believe the use of AI-generated images as visual references helped me develop my drawing skills.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree* *N/A*

4. I believe AI image generators were a helpful collaborative tool in the ideation process.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree* *N/A*

5. I believe the use of AI image generators provided an advantage (ie. time/labour efficiency) for this project.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree* *N/A*

6. I would use AI image generators for visual research in future artistic projects.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

Section 3: Comparative Attitudes

Re-rate your agreement with these statements from the pre-survey to provide any shifts in your perspective:

1. I believe AI image generators can be useful for artists and designers.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

2. I am concerned that using AI in artmaking could reduce the originality of work and interfere with creative process using other materials.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

3. I think AI-generated images can inspire new creative ideas.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

4. I am aware of possible biases, stereotypes, or limitations in AI-generated images.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

5. I understand how image generators were built and how they operate.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

Section 4: Open-Ended Reflection

Consider expanding on your responses from Sections 2 and 3.

1. **If you used AI image generators for Project #3,** what did you learn about the benefits or limitations of generative AI in creative processes? Did this technology meet your visual research needs and expectations? Did or could other tools meet your visual research needs?

2. How has your approach to visual research or ideation for drawing-based projects changed (if at all) after Project #3? Could you see possible uses of AI image generators as a visual research option for future projects and if so how could this technology be used to meet your visual research needs?

3. What concerns about AI in art-making remain unresolved for you? Do you have any other experiences, feelings or perceptions about this technology that were not covered in the questions above?

4. Is there something that could have been done better to facilitate the use of AI image generators such as Firefly? Was there something said or done that made you not want to explore this technology?

5. Would you consider working with the researcher outside of this class context to explore using AI image generators?

    - ❑ Yes
    - ❑ No

Research Title: Exploring AI Image Generators for Visual Research Methods in Post-Secondary Drawing Education

Researcher: Jay Dart jaydart@yorku.ca

Participant #: _____

Pre-Survey: Experience and Perceptions of AI and AI Image Generators

Please answer the following questions honestly. Your responses are confidential and will not affect your grade or standing in this course.

For the purposes of this survey, the type of artificial intelligence (AI) that is being referred to is generative AI which is defined as a type of AI that generates content, such as text, images, code, audio, and video, in response to user inputs called prompts.

Section 1: Experience with Generative AI and AI Image Generators

1. Which types of Generative AI content systems have you used?

   - ❑ **Text Generator:** Creates human-like text for applications like chatbots, writing assistance, and code generation (ie. ChatGPT, Copilot, Perplexity)
   - ❑ **Image Generator:** Turns text prompts into images, graphics, and illustrations (ie. Adobe Firefly, Leonardo, DALL-E, Midjourney)
   - ❑ **Audio Generator:** Creates music, voice-overs, and realistic speech from prompts (ie. Speechify, Suno)
   - ❑ **Video Generator:** Combines elements of image and sound generation to create short video clips, animate still images, or generate full scenes (ie. Invideo, Sora, Veo)
   - ❑ **3D Model Generator:** Creates three-dimensional models from text descriptions or 2D images for use in gaming, design, and virtual reality (ie. Meshy, Spline)

   Please list the Generative AI content systems you have used or reasons for not using them (ie. ethical concerns, accessibility, lack of interest or necessity):

   _____

   _____

   _____

   _____

2. What is your experience with using AI image generators (ie. Adobe Firefly, Leonardo, DALL-E, Midjourney)?

    - ❑ I have extensive use with multiple different AI image generators
    - ❑ I have extensive use with an AI image generator
    - ❑ I have used AI image generators for one or two specific projects (academic or otherwise)
    - ❑ I have only played around with AI image generators a little bit
    - ❑ I have never used AI image generators

    Please describe your experience with AI image generators or expand on your reasons for using or not using this technology.

    _____

    _____

    _____

    _____

    Have you used this technology for ideation, reference images, and/or other reasons? How? Why?

    Have you used style, effects, lighting presets? How? Why?

    Have you used generative fill or other tools? How? Why?

    Have you used AI image generators to generate photos or art? How? Why?

Section 2: Perceptions and Attitudes

Please rate your agreement with the following statements (1 = Strongly Disagree, 5 = Strongly Agree):

1. I am comfortable using new digital tools or technologies in my art practice.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

2. I believe AI image generators can be useful for artists and designers.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

3. I am concerned that using AI in artmaking could reduce the originality of work and interfere with creative process using other materials.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

4. I think AI-generated images can inspire new creative ideas.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

5. I would like to learn more about how AI can be used in the creative process.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

6. I am aware of possible biases, stereotypes, or limitations in AI-generated images.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

7. I understand how image generators were built and how they operate.

   Strongly Disagree 1 2 3 4 5 *Strongly Agree*

Section 3: Open-Ended Questions

Consider expanding on your responses from Section 2.

9. What impact do you think AI image generators could have on creative research or art-making processes including drawing using physical materials?

10. Do you have any other experiences, feelings or perceptions about AI image generation technology that were not covered in the questions above? Do you feel scared, excited, confused, angry, anxious, ...? Do you feel like you have to use this technology? Do you continue to use this technology and does it meet your needs? Are you disappointed by the results or strongly opposed to using it?

PANEL ON
RESEARCH ETHICS

Navigating the ethics of human research

TCPS 2: CORE 2022

Certificate of Completion

This document certifies that

Jason Dart

successfully completed the Course on Research Ethics based on the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2: CORE 2022)

Certificate # 0001425355

29 April, 2025

EXPANDED COURSE DESCRIPTION
VISUAL ARTS

School of the Arts, Media, Performance and Design
Department of Visual Art Art History
FA / VISA 3080
Drawing Methods
FALL 2024 / WINTER 2025

Course Calendar Description

Students incorporate observational drawing with abstract and conceptual visual solutions to develop a personal style that confirms drawing skills integrated with the creative process.

Course Instructors

Name	Section	Email
Jessica Campbell	Lab #01 – Fri 1:30–5:30	jcampb5@yorku.ca
TBA	Lab #02 – Tue 2:30–6:30	
TBA	Lab #03 – Wed 4:30–8:30	



David Shrigley's *Untitled (I will show the world how brilliant I am)*, 2014.

TOPICS AND CONCEPTS
Students incorporate observational drawing with abstract and conceptual visual solutions to develop a personal style that confirms drawing skills integrated with the creative process.

Drawing 3080 is a studio class designed to increase both technical and conceptual skills with an emphasis on the creative process and self-directed art making. Course work is in the form of extended assignments to be researched and executed both inside and outside the class with emphasis on individual solutions accomplished in consultation with the instructor.

Individual studio work *in the classroom* is a core activity. Assignments must be accomplished, in part, in the drawing studio during class time so that the creative process is available for response and evaluation by the instructor and peer group. Participation in discussions is expected and a portion of class time is devoted to visual presentations, material demonstrations as needed and individual and group critiques.

ASSIGNMENTS

- **CLASSROOM PARTICIPATION** Attendance, in-class discussion, contributions to critiques, drawing exercises, and general participation. (**10%)**

- **RECYCLE**
  Troll for objects, surfaces, discards, debris of our society on and off campus putting together a storehouse / collection of raw material for the project RECYCLE. Combine and create a large 2D artwork using this found material along with traditional and non-traditional drawing materials on the theme of excess, consumerism, the environment, ecology, reinvention and re imaging our world. **(30%)**

- **BINARIES**
  Research the concept of binaries used in computing, astronomy and other sciences. The definition of 'binary' is something having two parts. In mathematics it is a representation for numbers using only two digits, 0 or 1. You may also consider non-binaries or binary opposites. For example, you may refer to both the interior and exterior of the body or you may choose to use numbers, texts and images. Develop and resolve a series of THREE drawings that reflect your interpretation of binary. **(30%)**

OR

- **BODY AS MAP**
  Research the concept and aesthetics of maps/mapping (visit York Map Library) and apply this to the body. Map the body, head, torso, arms, legs is a series of five drawings. You may refer to both the interior and exterior of the body to include the nervous system, skeleton, etc as well as alternate methods of body mapping such as acupuncture points or chakras. Organize or install the THREE drawings into a personal landscape. **(30%)**

- **IDENTITY REMIX**
  Express a sense of self within the broader context of family, community, cultural background, language and history. Research and collect stories (verbal or written), mementos such as objects, costumes, textbooks, yearbooks, and other traces of a personal nature such as old photographs, postcards, diaries. Using these references,

directly or indirectly, create TWO OR MORE drawings that weave the personal with the political. **(30%)**

GRADED ASSESSMENT
Development: development of composition, mark-making, material application, conceptual and analytical abilities

Drawing skills: repetitive application of techniques and subsequent improvement

Work habits: ambition, preparation, focus, pacing, follow through, meeting deadlines, finished work

Participation: Thoughtful and considerate participation during discussions, studio time and, particularly, critiques

Practice/Participation/Work Habits – Participation in reading discussions and in-class studio time offers the benefit of allowing the instructor to help you develop your practice and technical skills, while also allowing you to witness your peers at work, which can provide you with ideas (either technical or conceptual) that you would never have had on your own. Take advantage of our studio!

Be organized: take care of your work by creating and maintaining a sturdy portfolio. Make sure that drawings are always stored flat, not rolled, and definitely not folded.

Absence: If you miss two classes, you'll receive an email cautioning you that your practice/participation grade has been affected and missing a 3rd class will result in a significantly low grade and/or failure of the course – unless supported by an accommodation letter from Student Services – significant grounds.

Late Submissions: Assignments received later than the due date will be penalized 5-10% (Depending on your weekly process). After seven days the assignment will not be accepted. Exceptions to the lateness penalty for valid reasons such as illness or compassionate grounds will be given consideration by the instructor but will require supporting documentation
Working outside of class time is necessary; you are encouraged to work a minimum of 4 hours weekly in addition to class time.

REQUIRED MATERIALS
In order to save money, you can collect these materials over time, and/or re-use materials you've already purchased. I will let you know in advance what materials we will use for each week.

- A Multimedia Sketchbook (9" x 12" or larger)
- Range of drawing tools of your choice.

Mark Marking / Drawing Media. Please get supplies as you want/need for your work. Choose a range of materials as suits your projects and interests:

- Various good quality Graphite Drawing Pencils (HB – 6B) and Pencil Sharpener
- Correction supplies, i.e. erasers, White-Out.

- Inks (Black India Ink, other colours optional)
- Brushes fine to large (for water- based media). You may want to try chinese brushes, in various sizes for ink
- Pen and Nib set. You can get these from supply stores like Blick. I also really like the G nib (or manga nib), which you can buy from jetpens.com
- Other Inking tools. Up to you, though we will look at a variety of potential tools throughout the course of the class. Micron, faber castell art pens, brush pens, brushes, quills, india ink, china ink and pro-white are all commonly used.
- Colour tools such as pencil crayons, crayons, gouache, water colour, acrylic paint… anything you think you might be interested in trying out in your sketchbook.

Paper: The majority of your assignments for critique will need to be produced on nice drawing paper (or its equivalent). Look for papers 22" x 30" or larger.

- Good quality drawing papers are required during class and for the home assignment. Consider the following good quality papers for your projects, Stonehenge, Arches, Carlyle Japan, BFK, Somerset. Other quality drawing papers are acceptable. mixed media or watercolour paper such as Stonehenge, Fabriano Studio Watercolour paper, Legion Rag Multimedia, Above Ground All-Media Rag, Canson Dessin 200 paper, Stonemill Multimedia paper.

Other Materials: You will likely need other materials, like glue and scissors for collaging. Please assess your needs during the course and get materials as needed!

Last date to drop a fall term (F) course without receiving a grade: November 08, 2023
Last date to drop a winter term (W) course without receiving a grade: March 11, 2024
Last date to drop a full year (Y) course without receiving a grade: February 08, 2024

Academic Policies / Information
Senate Academic Standards, Curriculum and Pedagogy Committee (ASCP) provides information that includes:

Research Ethics: https://www.yorku.ca/research/research-ethics/

Academic Honesty:
https://www.yorku.ca/secretariat/policies/policies/academic-honesty-senate-policy-on/

Student Conduct: https://oscr.students.yorku.ca/student-conduct

Accessibility: https://accessibility.students.yorku.ca/

Academic Integrity: https://www.yorku.ca/unit/vpacad/academic-integrity/

Religious Observance:
https://rights.info.yorku.ca/accommodating-creed-religion-a-guide-for-students-faculty-and-staff/

Academic Accommodation:
https://accessibility.students.yorku.ca/academic-support-accomodations

Grading Scheme:
https://calendars.students.yorku.ca/2022-2023/grades-and-grading-schemes

- Important University Sessional Dates (you will find classes and exams start/end dates, reading/co-curricular week, add/drop deadlines, holidays, University closings and more.

- https://registrar.yorku.ca/enrol/dates/2024-2025/fall-winter

Manage my Academic record
https://myacademicrecord.students.yorku.ca/degree-progress-report

- **"20% Rule"**
  No examinations or tests collectively worth more than 20% of the final grade in a course will be given during the final 14 calendar days of classes in a term. The exceptions to the rule are classes which regularly meet Friday evenings or on Saturday and/or Sunday at any time, and courses offered in the compressed summer terms.

Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Required: Select Effective Academic Start Term (Start Date)

When selecting the effective academic term, ensure it aligns with the first intake of students who will be impacted by the change.
DC Fall 2025

Are There Course Outline Updates for the Effective Academic Term?
Yes

Course Outline Author
-

Governance

Faculty
Faculty of Media, Art & Design

Program Title
FINE FM Fine Arts - Advanced : Oshawa

Status (Banner)
Active

Status
-

Course Subject Code
DRAW

Course Number
5301

Course Title
Drawing V (Explorative)

Abbreviated Course Title
DRAWING V (EXPLORATIVE)

Is There An Equivalent Course In PPL?
No

Is this course shared between multiple programs?
No

Are you updating or editing the course description?
No

Course Description
Drawing V (Explorative) is designed to provide students an opportunity to examine the impact of drawing on their art practice. Course work will encourage students to push beyond the expected limitations of drawing as an art-making medium. The boundary between line, texture and substrate will be blurred, as students explore drawing in context to the multiplicity of spaces in which they live and make art.

Experiential Learning
No

Capstone Course
No

Delivery Mode
-

Classroom Hours (Weekly)
2

Synchronous Hours (Weekly)
-

Asynchronous Hours (Weekly)
-

Co-op/Field Placement/Practicum Hours (Total)
-

Lab/Shop Hours (Weekly)
-

Clinical Hours (Weekly)
-

Course Duration (Weeks)
14

Grading Mode
Numeric Marks

Degree: Degree Breadth Elective
No

D e g r e e : Degree Breadth Elective Level
-

Degree: Degree Breadth Category
-

PLAR Eligibility
Yes

PLAR: Select All Applicable
Portfolio, Other (if other please specify)

PLAR: Other
Course description and grade from institution where similar course was studied previously.

PLAR Attachments
-

General Education Elective
No

General Education Elective Theme
-

Indigenous General Education Elective
No

Communication Course
No

Changes to Learning Outcomes

Are you editing, removing, or adding Course Learning Outcomes?
No

Course Learning Outcomes to be edited, added, removed:

TYPE OF CHANGE (EDIT, ADD, REMOVE)	CLO #	CLO DESCRIPTION

Learning Outcomes

Name
DRAW5301 CLO1

Subject code
-

Description
Demonstrate an advanced understanding of line quality and line variation, and the ability to use a variety of mark-making materials and techniques to create visually sophisticated drawings on a range of substrates.

Attribute Level (Not Needed)
-

Learning Outcome Level (Not Needed)
-

Tags (Not Needed)
-

Assessment Details (Not Needed)
-

Name
DRAW5301 CLO2

Subject code
-

Description
Demonstrate an advanced understanding of how to envision and create compelling drawing compositions using draftsmanship, note-making and thumbnail sketch making techniques.

Attribute Level (Not Needed)
-

Learning Outcome Level (Not Needed)
-

Tags (Not Needed)
-

Assessment Details (Not Needed)
-

Name
DRAW5301 CLO3

Subject code
-

Description
Demonstrate a good understanding of aesthetic form and how it can be influenced through group discussions, critiques, one-on-one consultations, collaborative activities and regular interaction with other art makers.

Attribute Level (Not Needed)
-

Learning Outcome Level (Not Needed)
-

Tags (Not Needed)
-

Assessment Details (Not Needed)
-

Name
DRAW5301 CLO4

Subject code
-

Description
Demonstrate the capacity to deconstruct aesthetic formalities in drawing and push the medium beyond the conventional limitations of depiction and representation, realizing drawings as a type of performance, or sculptural installation.

Attribute Level (Not Needed)
-

Learning Outcome Level (Not Needed)
-

Tags (Not Needed)
-

Assessment Details (Not Needed)
-

Degree: Ontario Qualifications Framework (OQF)

Conceptual and Methodological Awareness:
-

Depth and Breadth of Knowledge:
-

Communication Skills:
-

Application of Knowledge:
-

Professional Capacity/Autonomy:
-

Awareness of Limits of Knowledge:
-

Essential Employability Skills

This course will contribute to the achievement of the following Essential Employability Skills: (Select All Applicable)
ESS1, ESS2, ESS4, ESS5, ESS6, ESS7, ESS8, ESS9, ESS10, ESS11

Credits

Credit Value (Course GPA Weighting)

Credit Value:
2

Credit Value:
-

Contact Hours

Course Hours

Course Hours:
28

Course Hours:
-

Equivalent Course(s)

This course is considered to be equivalent to the following course(s):
-

Prerequisites and Corequisites

Prerequisite and Corequisite Course(s)

Prerequisite(s):

DRAW 4310

Corequisite(s):

Not Applicable

Evaluation Plan

The evaluation plan is subject to modification based on factors such as holidays, campus closures, or unforeseen circumstances. Students will receive written notification of any additions or deletions to evaluations in accordance with Durham College's Policies ACAD 135 and ACAD 108.

Evaluation Category	Assessment (%)	Weight	Assessment Weight	Week(s) Due
Lab/Shop Activity	20			5, 9, 13, 14

Evaluation Description
In-class process work activities

CLO(s) Assessed
CLO1, CLO2, CLO3, CLO4

EES(s) Assessed
EES1, EES2, EES3, EES4, EES5, EES6, EES7, EES8, EES9, EES10, EES11

Evaluation Category	Assessment (%)	Weight	Assessment Weight	Week(s) Due
Lab/Shop Activity	20			2, 3, 7, 11

Evaluation Description
In-class drawing exercises

CLO(s) Assessed
CLO1, CLO2, CLO3, CLO4

EES(s) Assessed
EES1, EES2, EES3, EES4, EES5, EES6, EES7, EES8, EES9, EES10, EES11

Evaluation Category	Assessment (%)	Weight	Assessment Weight	Week(s) Due
Project	20			6

Evaluation Description
Project 1 – Material Things

CLO(s) Assessed
CLO1, CLO2

EES(s) Assessed
EES1, EES2, EES3, EES4, EES5, EES6, EES7, EES8, EES9, EES10, EES11

Evaluation Category	Assessment (%)	Weight	Assessment Weight	Week(s) Due
Project	20			10

Evaluation Description
Project 2 – Space & Place

CLO(s) Assessed
CLO1, CLO2, CLO3

EES(s) Assessed
EES1, EES2, EES3, EES4, EES5, EES6, EES7, EES8, EES9, EES10, EES11

Evaluation Category	Assessment (%)	Weight	Assessment Weight	Week(s) Due
Project	20			13

Evaluation Description
Project 3 – Altered Ego

CLO(s) Assessed
CLO1, CLO2, CLO3, CLO4

EES(s) Assessed
EES1, EES2, EES3, EES4, EES5, EES6, EES7, EES8, EES9, EES10, EES11

Total Evaluation Weight
-

Complete Evaluation Weight?
-

Evaluation Notes

Generative AI Use
The use of generative AI is PERMITTED IN SPECIFIC components of this course. Please refer to faculty directives.

Remote Proctoring
No

TurnItIn
-

Additional Evaluation Notes

1. Notes concerning the evaluation of projects, assignments, and marks to be awarded for in-class participation and engagement will be provided in class. Specific information concerning methods of evaluation and the role consultations, progress reviews, and critiques play in the course will be also addressed in class.

2. An interim mark will be determined for all first year students to identify their academic progress. This mark will be based on the results of the assignment grades up to the mid-term date.

Resources

In compliance with the Directive on the Costs of Educational Material under the Ministry of Training, Colleges and Universities Act (MTCU Act), please visit this link to determine textbook costs. Please speak with your professor to determine if prior versions of a textbook are acceptable.
https://durham.bookware3000.ca/course-materials/textbook-search

Required Text(s) and Supplies

1. While some drawing supplies will be provided in class, students will be required to provide their own media and substrates to complete course work.

Recommended Resources

1. DC Connect will be used for all course resources including assignment instructions, slideshows and other useful references.

Expectations

Policies and Expectations for the Learning Environment
All students at Durham College have the responsibility to familiarize themselves with and abide by the college's academic and student conduct policies, including, but not limited to:

- Academic Integrity
- Acceptable Use of Information Technology
- Grade Appeals
- Student Conduct: Standards for All Learning Environments
- Students who would like assistance with academic access and accommodations in accordance with the Ontario Human Rights Code should register with the Access and Support Centre(ASC), supported through the Accommodations for Students with Disabilities and Accessibly Formatted Course Materials policy.
- Visit Student Services for additional supports available.
- Additional full-time program related details will reside in the applicable Program Guide
- In the event of a campus closure during which time classes cannot be conducted or attended in person, course delivery will be conducted remotely where possible. Check the DC website for Campus Status.

Course Specific Expectations and/or Requirements
ATTENDANCE: Drawing is predominantly a studio-based course. Students are given the opportunity to develop their drawing skills by participating in drawing exercises during class. Past experience has shown a strong parallel between low grades and poor attendance. Information supplied in class is essential for the successful completion of work, therefore students are expected to attend all classes. Students are to arrive promptly at the beginning of each class and should expect to remain for the full scheduled class time. Whether delivered remotely or in-class, students are required to communicate and consult with their professor during scheduled class hours in order to achieve full marks for attendance and progress reviews. To achieve a full beneficial experience, students are expected to work on assignments during appointed class hours and to spend time working on assignments outside of class hours.

ABSENCES must be reported to the professor prior to the scheduled class via email. It is the student's responsibility to stay caught up on course work when a class is missed. All necessary resources are posted on the DC Connect class site. Despite extenuating or unforeseen circumstances, missing more than three classes will result in a significantly lower grade and potentially failing the course.

DEADLINES: Any studio assignment submitted past a specified due date will result in a grade deduction

of 10% per week and may not be accepted or graded three weeks past that date. Students are required to contact their professor in advance should extenuating circumstances prevent timely submission of their work. Related documentation in this case may be required to avoid potential late penalties. Alternate arrangements for class work may be made if the instructor feels the circumstances and documentation warrant an extension.

COMMUNICATION: The instructor will only read electronic mail sent through DC Connect or to the email address noted on this course outline and sent from email addresses clearly identifying the student as the sender. Students are expected to use DC CONNECT for submission of assignments and should regularly consult the course site on DC Connect for course-related resources and updates.

SUPPLIES: Students are expected to bring all appropriate drawing supplies provided from the ART KIT for each class (pencils, erasers, conte, papers, clips, rulers, pastels, charcoal etc.)

There will be occasional CRITIQUE SESSIONS in class on the drawings and exercises. While the feedback of marks is important, a great deal can be learned by these shared experiences. Students will be expected to look at each other's work during class critiques and participate in these sessions. They are an opportunity to question, constructively assess and learn how to improve their work.

Students are expected to conduct themselves in a manner that RESPECT THE RIGHTS OF THEIR PEERS AND THE INSTRUCTOR to learn and work in an environment that is safe and free of distraction. No class discussion, written submission or oral presentation will contain sexist, racist or discriminatory material or language. The use of cell phones is not permitted in class. The use of laptops or other digital media, to watch videos, play games, surf the net or use social networking tools is not permitted. Any student who disrupts a class for any of the above reasons will be asked to leave the classroom.

Learning Plan

The Learning Plan is a planning guideline. Actual delivery of content may vary with circumstances. Students will be notified in writing of changes that involve the addition or deletion of learning outcomes or evaluations, prior to changes being implemented, as specified in the Course Outline Policy and Procedure at Durham College.

Week/Module
1

CLOs
CLO1, CLO2, CLO3, CLO4

In-Person Intended Learning Objectives/Topics

- Course introduction - expectations, scheduling and overview of course outline
- Examining formalities and limitations of drawing

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
2

CLOs
CLO1, CLO2

In-Person Intended Learning Objectives/Topics
In-class drawing exercise #1

Examining and expanding drawing's role in an art practice

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module	CLOs
3	CLO1, CLO2

In-Person Intended Learning Objectives/Topics

In-class drawing exercise #2

Project #1 – Introduction and work time (research)

Examining drawing using a variety of materials and substrates

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation

DC Connect

Week/Module
4

CLOs
CLO1, CLO2

In-Person Intended Learning Objectives/Topics
Project #1 – Work time (sketches)

Examining drawing using a variety of materials and substrates

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
5

CLOs
CLO1, CLO2

In-Person Intended Learning Objectives/Topics
Project #1 – Work time (final artwork)

Examining drawing using a variety of materials and substrates

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
6

CLOs
CLO1, CLO2, CLO3

In-Person Intended Learning Objectives/Topics
Project #1 – Critique

Examining drawing using a variety of materials and substrates wrap up

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC connect

Week/Module
7

CLOs
CLO1, CLO2, CLO3

In-Person Intended Learning Objectives/Topics
In-class drawing exercise #3

Project #2 – Introduction and work time (research)

Examining and creating space through drawing

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC connect

Week/Module
8

CLOs
CLO1, CLO2, CLO3

In-Person Intended Learning Objectives/Topics
Project #2 – Work time (sketches)

Examining and creating space through drawing

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC connect

Week/Module
9

CLOs
CLO1, CLO2, CLO3

In-Person Intended Learning Objectives/Topics
Project #2 – Work time (final artwork)

Examining and creating space through drawing

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
10

CLOs
CLO1, CLO2, CLO3

In-Person Intended Learning Objectives/Topics
Project #2 – Critique

Examining and creating space through drawing

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
11

CLOs
CLO1, CLO2, CLO3, CLO4

In-Person Intended Learning Objectives/Topics
In-class drawing exercise #4

Project #3 – Introduction and work time (research)

Examining concepts surrounding aesthetic formalities and drawings perceived limitations

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
12

CLOs
CLO1, CLO2, CLO3, CLO4

In-Person Intended Learning Objectives/Topics
Project #3 – Work time (sketches)

Examining concepts surrounding aesthetic formalities and drawings perceived limitations

Examining and practicing how to envision and create compelling drawing compositions using research and sketching

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module
13

CLOs
CLO1, CLO2, CLO3, CLO4

In-Person Intended Learning Objectives/Topics
Project #3 – Work time (final artwork)

Examining concepts surrounding aesthetic formalities and drawings perceived limitations

Online Intended Learning Objectives/Topics

Lab/Shop/Clinic Intended Learning Objectives/Topics

Field Placement/Co-op/Practicum Intended Learning Objectives/Topics

Required Preparation
DC Connect

Week/Module 14	**CLOs** CLO1, CLO2, CLO3, CLO4
In-Person Intended Learning Objectives/Topics Project #3 – Critique	**Online Intended Learning Objectives/Topics**
Lab/Shop/Clinic Intended Learning Objectives/Topics	**Field Placement/Co-op/Practicum Intended Learning Objectives/Topics**
Required Preparation DC Connect	

Optional: Teaching and Learning Review

Optional: CTL Teaching and Learning Review
No

What Would You Like Reviewed by CTL?
-

Rationale

Rationale for Proposed Change(s)
Minor changes to formatting and clarifications to intended learning objectives in Learning Plan have been made.

Process Book

By Jay Dart

September 2024 - August 2025

York University
Interdisciplinary Studies

The Process Book is a multi-page document used to gather reference images, sketches, final drawings, and written reflections, providing a coherent record of conceptual and compositional development.

This Process Book serves as the primary creative component for my thesis as it includes work for both creative cycles of the assignments in the autoethnographic research. In the initial cycle, I used a variety of sources for visual research such as direct observation, imagination, memory, archival map collection and my personal photos which are included herein alongside sketches and artist statements. Artist statements serve as expressions of artistic intention that were carried throughout both cycles.

For the cycle in which I revisited the assignments using AI-generated images as visual references, I have included iterations of prompts, generated images and Firefly settings. Reflexive writing accompanies the AI-integrated assignments to record how image generators functioned within visual research. However, detailed findings and analysis are contained in Chapter 5 of the thesis.

I often get my students to submit Process Books along with their final assignment submissions so that I can see the evolution of their conceptual and visual development. This format proved particularly valuable in the context of my thesis research in which I experimented with AI image generators as a reference image source to be used in my drawing-based practice. The organized documentation supports my a/r/tographic intention to focus on process rather than solely on the resulting artwork and track the co-creative aspects of working with machines and materials.

This Process Book was designed in Adobe InDesign—my preference of software for multi-page layouts—but the format itself is transferable to more commonly used presentation tools in studio art programs. In Stage 2, students were invited to create their own process books using publicly-available platforms such as Google Slides or Microsoft PowerPoint, aligning their documentation process with the autoethnographic model while respecting differences in technical skills and course expectations.

Assignment 1: Initial

Assignment Theme: Recycle

ARTIST STATEMENT

Casual Setting is a mixed media drawing with traditional drawing materials (ink and coloured pencil), found objects (sawdust, screws, cardboard, Lego, coffee cup), and non-traditional art materials (house paint).

The composition juxtaposes several themes and concepts that came to mind in the process of working out my approach to this assignment on the theme of reinvention, excess, and consumerism. These themes range from an examination of my own consumerism in the form of disposable coffee cups from a daily habit to the excess of plastic toys as remnants of my childhood as well as my kids'.

A mix of drawing techniques—including tracings, blind contour sketching, pattern, tones, observational drawing —were employed to depict toys as well as a variety of art-making tools that I use in my own practice and in the classes that I teach. The mix of precise and playful techniques are meant to challenge the notion of what a "good" drawing is.

The substrate for this piece employs a cardboard shipping box from an online purchase that was also reused when my family and I recently moved – a difficult move from a place we called home for almost 10 years.

Additionally, household paint has been used and scraps of construction have been laid out in this setting to allude to my role as a dad and the relationship I have with my own father with the sawdust specifically reflecting on his mortality. This connection between my art practice and the blue-collar professions of my brothers and forefathers is a recurring theme in my work and, in this piece, reinforces the theme of reinvention through found materials and the fragments of complex thoughts and relationships.

Through the choice of words that reference repetition and progress, the text labelling the objects in the drawing continues to develop the theme of 'working' and 'making' as it pertains to artwork, construction, and play.

As I mentioned earlier, there are a lot of ideas that made their way into this piece—ideas that I feel connect with the overall theme of the assignment as well as with personal subjects and longstanding themes within my practice that I am still wrestling to present in an organised way. Thus, the informal place setting seemed like an appropriate way to serve up the smorgasbord of thoughts that I explored in this piece.

Saul Steinberg's work was a formative influence on this work. A reproduction of his View of the World from 9th Avenue was one of the few pieces of art that my mom hung in our house when I was growing up. Seeing his mixed media work again in class, particularly his Table series, and contemplating the way he conveys thoughts through images inspired the composition of my work for this assignment. I hope to continue to experiment with materials in the way that Steinberg did as I develop this new approach to drawing in my practice.

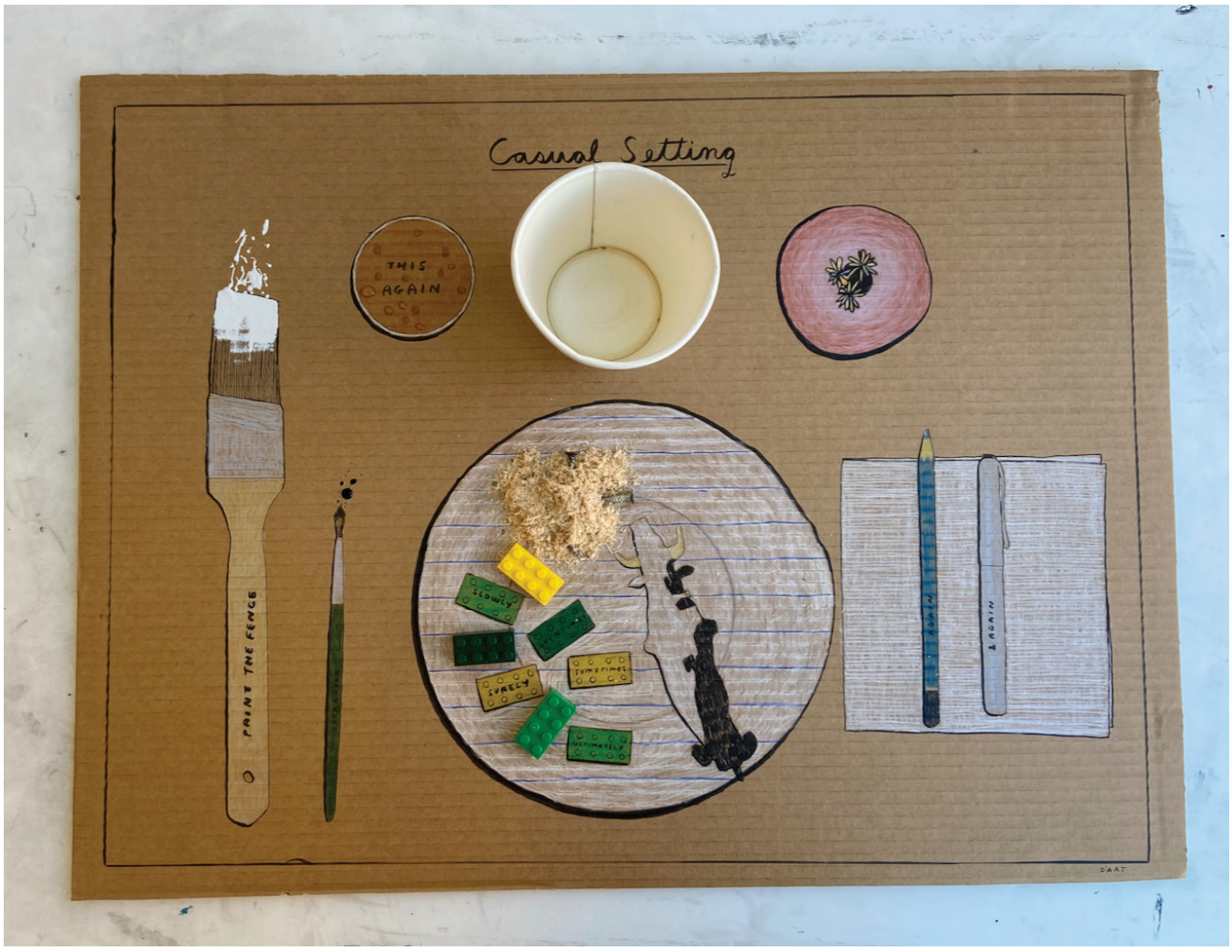
VISUAL RESEARCH

For the initial excecution of this class assignment, the visual research included a mix of drawing from direct observation and memory/imagination.

SKETCHES

The conceptual development of this assignment began with a series of quick sketches in my sketchbook of coffee cups, sawdust & cigarettes, and toys. There was a mock-up for a potential installation piece involving a large sheet of drywall and sketches of the elements arragned in a landscape before landing on the place setting composition.

ARTWORK





Casual Setting, 2024, pencil crayon, pastel, ink, house paint, sawdust, found objects on carboard

Assignment 1: Revisited

The revisited attempt at assignment 1 is titled *At Your Service.* This piece uses a similar conceptual and compositional approach to the artwork for the initial assignment with a place setting for a meal acting as a location for the arrangement of a series of symbolic objects. This place setting seeks to draw connections between the acts of service in daily life, artistic production, and spiritual practices.

I sought reference images to help me render realistic details from an aerial perspective. My prompts included requests for objects that were broken, mis-shaped, artisanal or hand-crafted because I wanted them to be imbued with the imperfect and odd qualities of life. The text in this piece derives from readings, podcasts, and conversations on the topics of creative and spiritual practices.

See Findings in Chapter 5 of the thesis for more details.

VISUAL RESEARCH USING FIREFLY



PROMPT: high angle view of a casual place setting on a weathered, old table inside a bright rustic old cabin in the winter. The scene includes basic items such as an old dented coffee mug, tin plate, bread, vintage 1 gallon glass growler jug with bright blue colourful liquid, old book, pencil, knife, spoon. Realistic, gritty.

Style: Nostalgiac

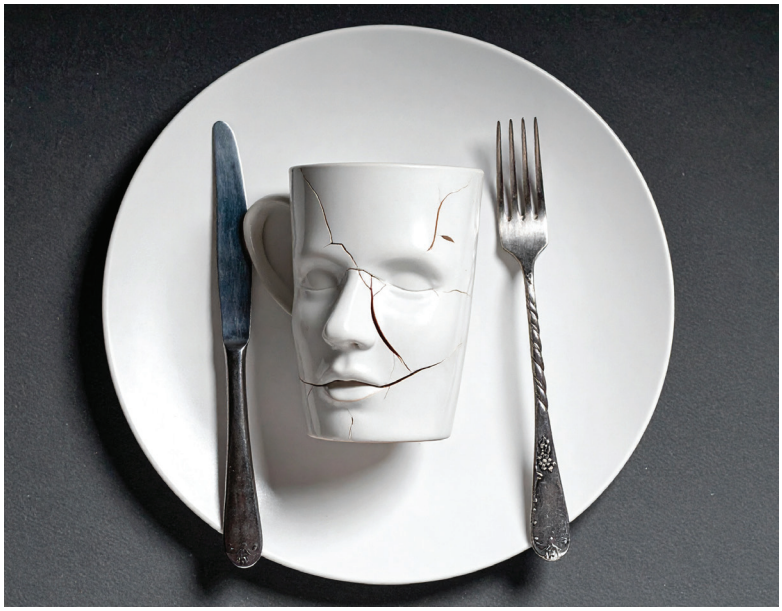
Camera Angle: Shot from above



PROMPT: high angle view of a humble, old place setting for a lone woodsman displayed on a weathered, old wooden table inside a bright rustic old cabin in the winter. The scene includes basic items such as an old dented coffee mug, tin plate, bread, vintage 1 gallon glass growler jug with bright blue colourful liquid, old book, pencil, rainbow spoon. Realistic, gritty.

Style: Faded image, Chaotic

Camera Angle: Shot from above



PROMPT: a casual place setting; plate is oddly shaped, cracked mug, bent fork with 8 tines, mini knife; contemporary style, artisanal craftsmanship

Style: Surrealism

Camera Angle: Shot from above



PROMPT: a casual place setting; plate is oddly shaped, cracked mug, bent fork, tiny knife; contemporary style, artisanal craftsmanship; natural light, sunbeam

Style: Nostalgiac

Camera Angle: Shot from above



PROMPT: casual place setting for one person, broken dishes, mis-shaped dishes, cracked dishes, contemporary style, artisanal craftsmanship

Style: Nostalgiac

Camera Angle: Shot from above

IMAGES REFERENCED IN FINAL DRAWING



PROMPT: casual place setting for one person; plate is oddly shaped, cracked mug, bent fork, tiny knife; contemporary style, artisanal craftsmanship

Style: Nostalgiac

Camera Angle: Shot from above



PROMPT: a casual place setting; plate is oddly shaped, cracked mug, bent fork, tiny knife; contemporary style, artisanal craftsmanship; natural light, sunbeam

Style: Nostalgiac, Surrealism

Camera Angle: Shot from above

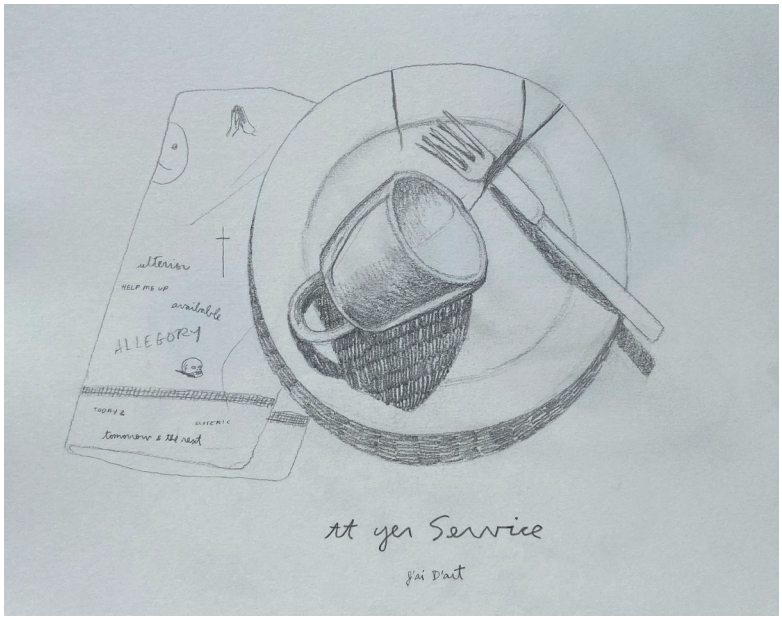


PROMPT: casual place setting for one person, broken dishes, mis-shaped dishes, cracked dishes, contemporary style, artisanal craftsmanship

Style: Nostalgiac

Camera Angle: Shot from above

Additional Features Used: Generative expand



SKETCHES

Using various AI reference images for sketching to experiment with composition and media.





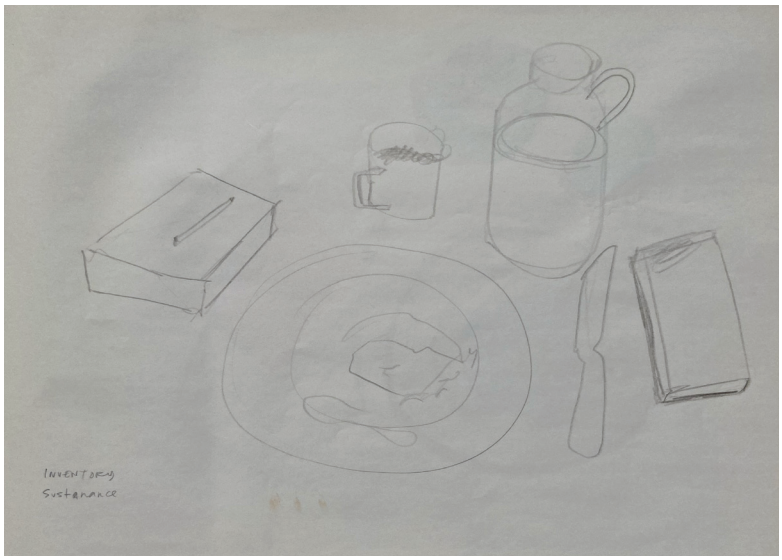




MORE SKETCHES



Graphite, pastel on canvas

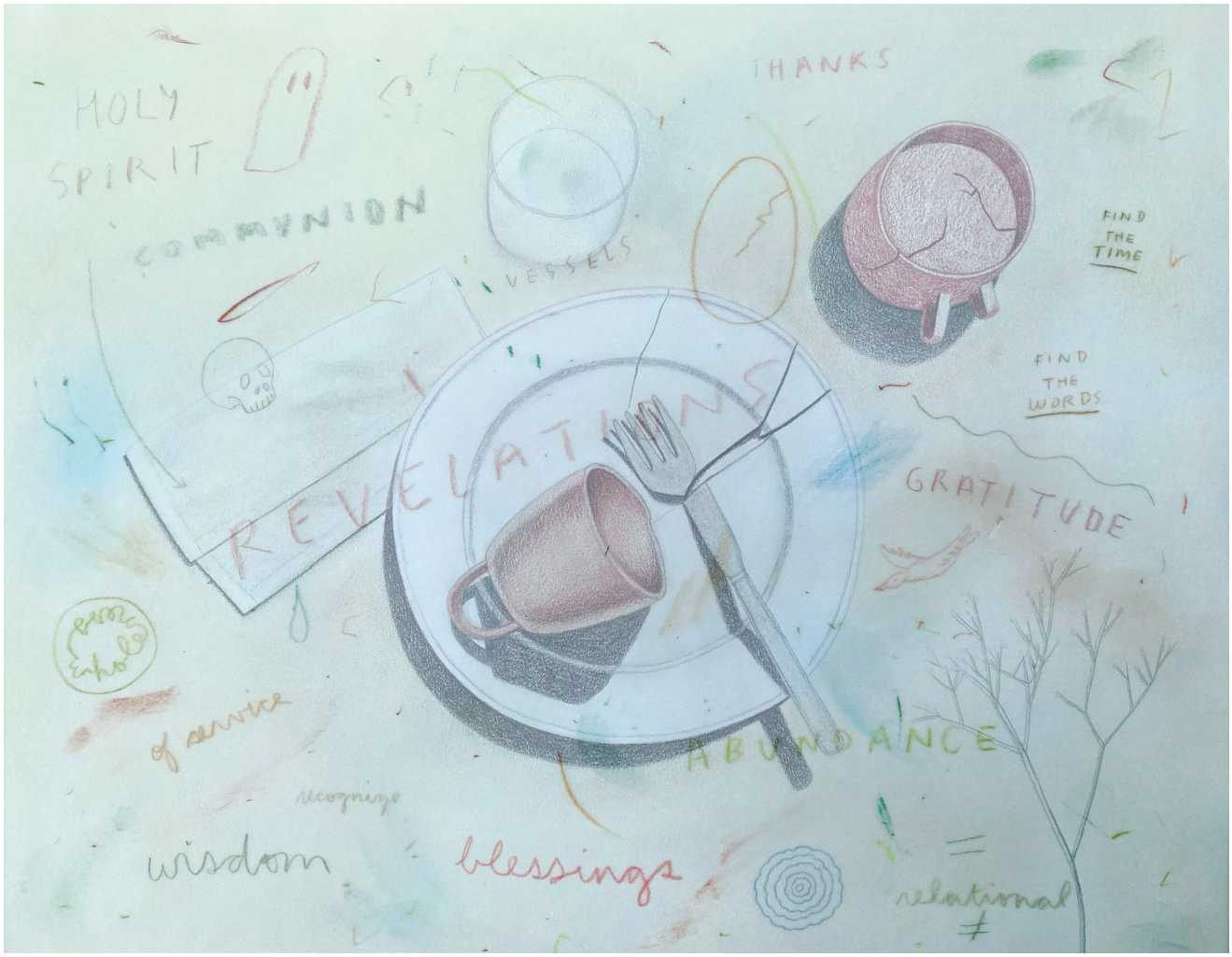


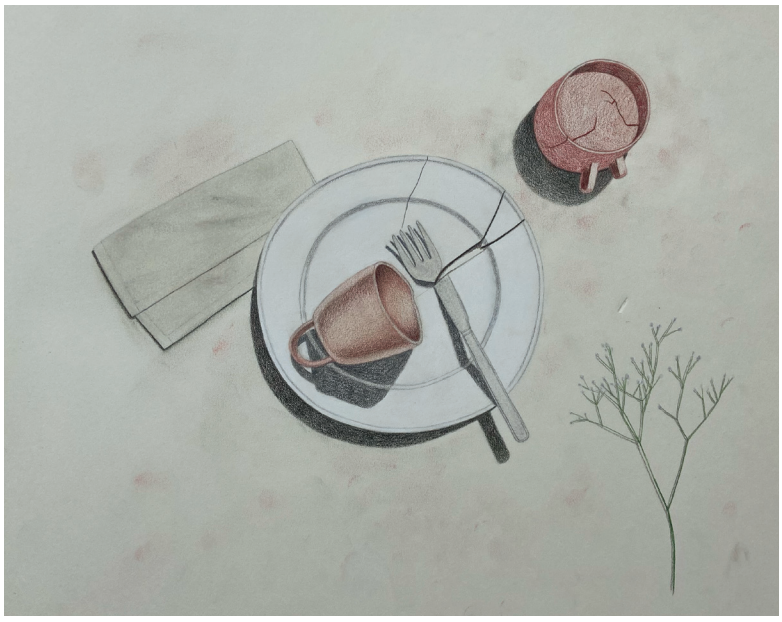
Charcoal pencil on newsprint



Oil pastel on cartridge paper

ARTWORK





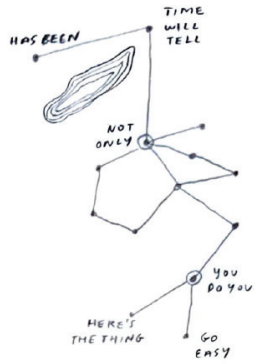
At Your Service, 2025, coloured pencil and pastel on paper

ABOVE: Final artwork with text overlay on vellum tracing paper

LEFT: Graphite, pastel, pencil crayon on old strathmore paper without overlay

Assignment 2: Initial

Assignment Theme: Body As Map

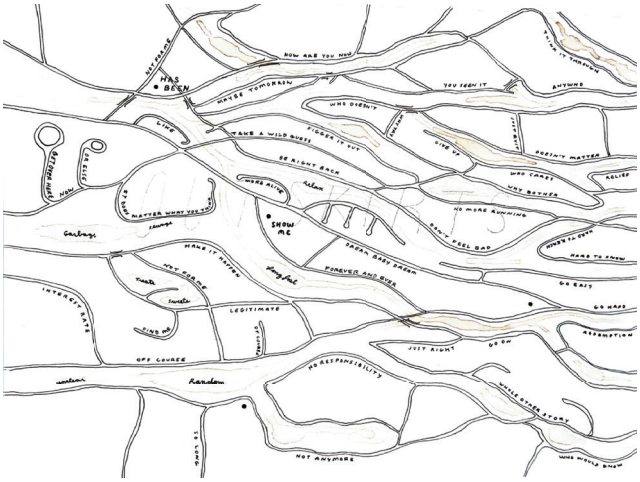




ARTIST STATEMENT

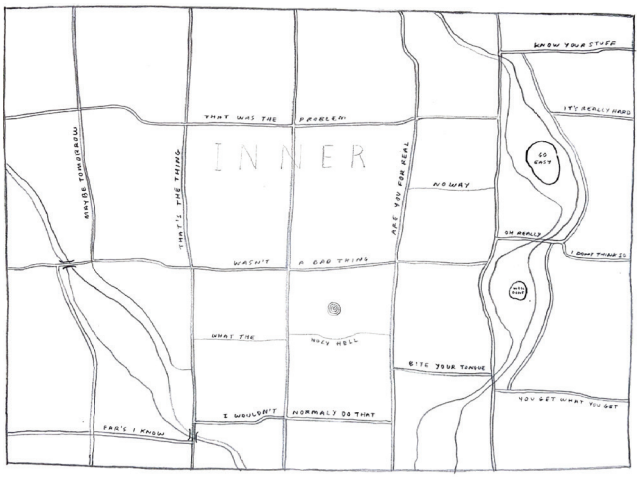
In, Inner, Innerer is a series of three map drawings; each one takes the viewer into or out of a landscape. The compositions depict an overview of a region to a close up arrangement of assorted objects at an intersection to an extreme close-up of scattered, dead leaves on dirty ground. The cues for the connections between these maps are subtle and reward those who closely examine the details. In each piece, a personal vocabulary of images and words has been arranged that juxtapose references to artistic and laborious acts, family and community narratives, physical and mental existence, conscious and unconscious minds. The to and fro of actions and thoughts from the left and right hemispheres of the brain are of central importance as I continue to explore the nature of the creative process in my drawing-based practice.

For this series, ink and graphite are employed in each composition to reproduce a range of mark-making techniques that reference geographic maps, illustrative tourism flyers, and gestural still life sketching. Since this series addresses themes relating to body and mind, I have chosen coffee as a non-traditional medium for the subtle, colourful detail in the waterways on the maps as a reference to quotidian life and the stimulating effects of caffeine.



SKETCHES

During the ideation process, I came up with a few ideas involving the use of maps as a way to organize thoughts and to render the complexity of my inner world — mind maps.



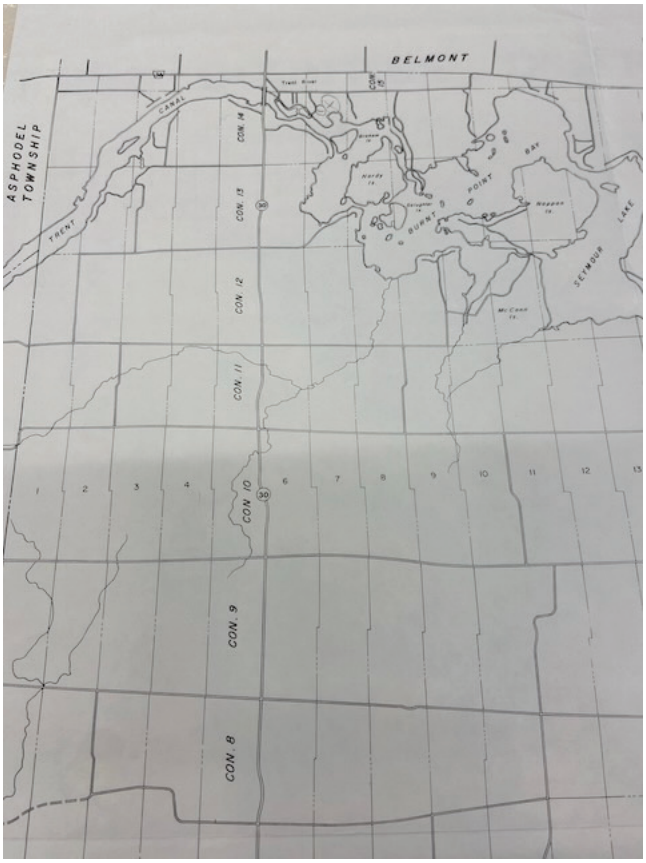
VISUAL RESEARCH

I found many valuable references at the York Map Library — some of them served as design inspiration while others were sought out for specific locations related to my family history. These cartographic images were referenced to sketch traditional map icons, graphics, and structures. In the final artwork composition, some specific details from the maps referencing my ancestry were incorporated into a creative approach to mapping.

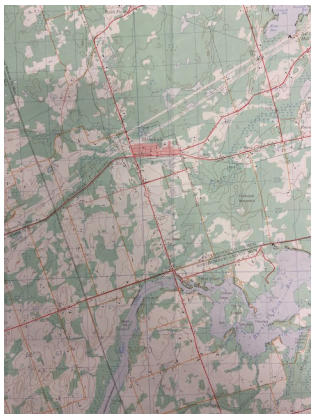
VISUAL RESEARCH

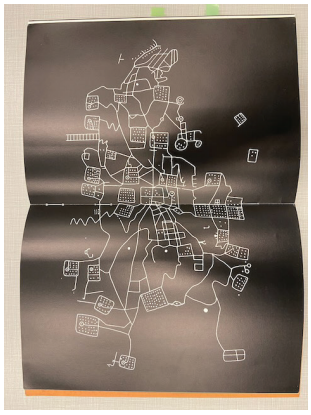


From the Osborne Children's Illustration collection at the Lillian H Smith Library where I take my students.



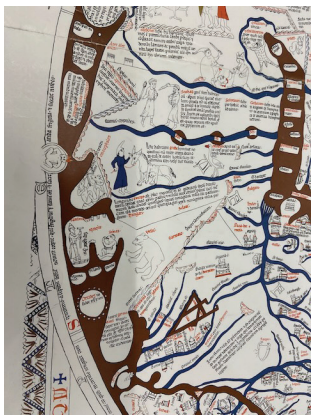
Map of small community where my paternal ancestors hail from. Details from this map were used in the final art.

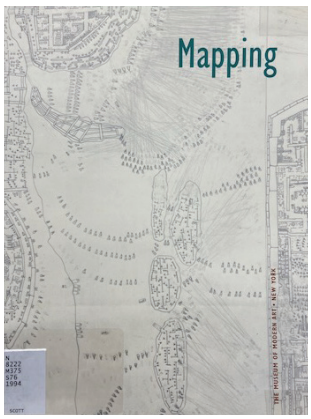


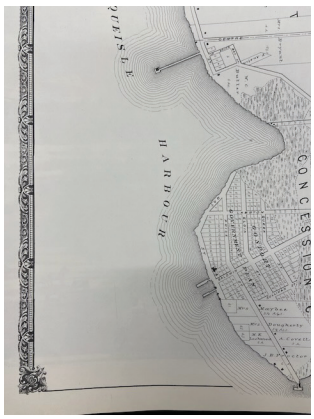




Various maps from the map collection at the Scotts Library.







ARTWORK



In, 2024, ink, graphite and coffee on paper



Inner, 2024, ink, graphite and coffee on paper



Innerer, 2024, graphite on paper

Assignment 2: Revisited

Assignment 2 (revisited), titled *In The Clouds,* also builds off the conceptual and compositional approach to the artwork for the initial assignment. Rather than using a cartographic map for the visual reference as I did in the first attempt, this time I wanted a photographic map that would provide additional details for the aerial view. Like the initial drawing, I have used a map format as a place to organize words that I have encountered and compiled in my daily life.

The prompts that I used for the reference image generation sought details that would add a narrative component within the map elements and support my intention to make this piece about relationships between separate entities — in this case, my father and me. For instance, I wanted two hamlets and complex web of roads and streams.

Firefly's Generative Expand feature allowed me to get a more zoomed out view of the map by using one of the generated images as a starting point, setting a large bounding box, and prompting the app to add more landscape. The Generative Fill feature provided an opportunity to add details within the landscape such as a crop circle design, sea monster, and a giant bonfire which were intended to add further details to the narrative.

See Findings in Chapter 5 of the thesis for more details.



SKETCH

Working through a colour version of the map that I drew for the intial assignment. No reference, only imagination.

VISUAL RESEARCH USING LEONARDO

NOTES:
- Could not get an aerial, bird's eye view directly from above in Leonardo
- Prompt Enhance feature provides too many details. However, some enhanced details were useful in my prompts as I moved forward and switched to using Firefly



PROMPT: Aerial perspective of a tranquil rural landscape in early spring, with meandering roads that dissect the terrain, interspersed with serpentine creeks that glint in the morning light, their gentle flow nourishing the surrounding forests with a vibrant mix of deciduous and evergreen trees, and vast fallow fields that stretch towards the horizon, their earthy tones a testament to the season's renewal, with hints of greenery beginning to emerge from the thawing soil, set against a soft blue sky with wispy clouds that are tinged with a warm golden light, evoking a sense of peacefulness and rejuvenation.

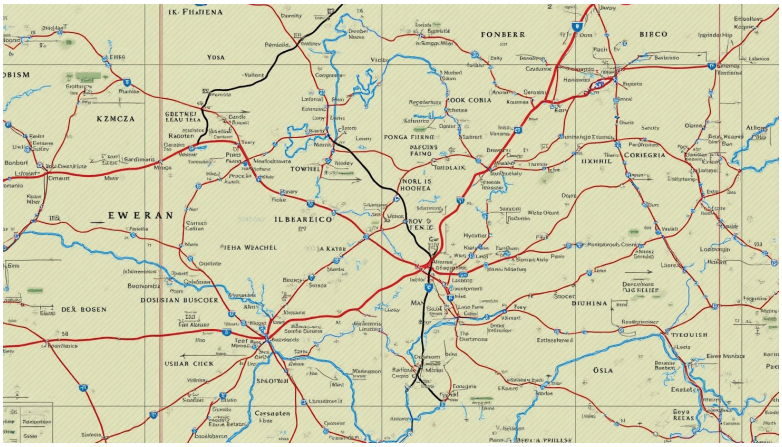
Model: Flux Dev
Prompt Enhance: ON
Style: Dynamic



PROMPT: Birds Eye view from above of a rural region; topographic; roads, creeks, forests, fallow fields; early spring

Model: Flux Dev
Prompt Enhance: OFF
Style: Dynamic

VISUAL RESEARCH USING LEONARDO



PROMPT: A detailed topographical map of a vast rural area, showcasing an intricate network of highways, winding country roads, and rustic dirt tracks, meandering through rolling hills, verdant forests, and picturesque farmland, alongside serene waterways, including gentle rivers, streams, and lakes, as well as railway lines, with subtle elevation markings, and scattered rural settlements, farms, and hamlets, in a muted color palette with subtle earthy tones, with clear, concise labeling, and a subtle grid pattern, evoking a sense of adventure, exploration, and a deep connection to the land.

Model: Flux Dev
Prompt Enhance: ON
Style: Dynamic



PROMPT: A detailed topographical map of a vast rural area with two hamlets, showcasing an intricate network of roads alongside waterways, railway lines, farms

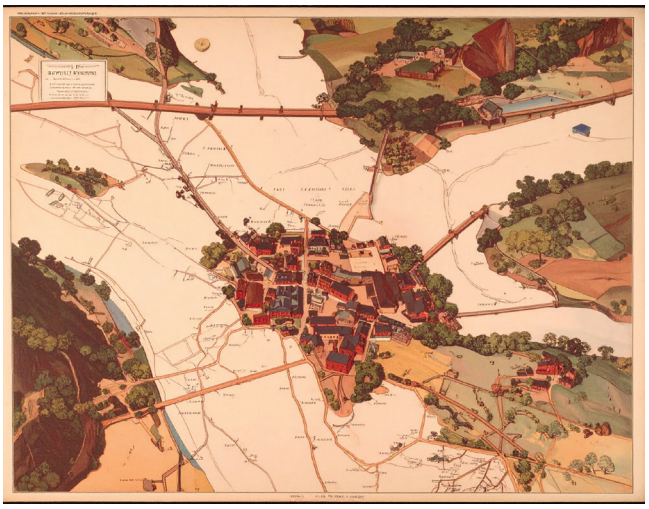
Model: Flux Dev
Prompt Enhance: OFF (but some details from the initial enhanced prompts were used)
Style: Dynamic



PROMPT: A bird's eye view of a detailed topographical map of a vast rural area with two towns, showcasing an intricate network of roads alongside waterways, railway lines, farms

Model: Flux Dev
Prompt Enhance: OFF (but some details from the initial enhanced prompts were used)
Style: Dynamic

VISUAL RESEARCH USING FIREFLY



PROMPT: A detailed topographical map of a vast rural area, showcasing an intricate network of highways, winding country roads, and rustic dirt tracks, meandering through hills, forests, and farmland, alongside waterways, railway lines, with scattered rural settlements, farms, and hamlets, in a muted color palette with subtle earthy tones, with clear, concise labeling. (Some prompt details from Leonardo's Prompt Enhance feature).

Style: None

Camera Angle: Shot from above



PROMPT: A detailed topographical map of a vast rural area, showcasing an intricate network of highways, winding country roads, and rustic dirt tracks, meandering through hills, forests, and farmland, alongside waterways, railway lines, with scattered rural settlements, farms, and hamlets with clear, concise labeling

Style: None

Camera Angle: Shot from above



PROMPT: Same as above

Style: None

Camera Angle: Shot from above

FINAL REFERENCE IMAGE USING FIREFLY



PROMPT: detailed topographical map of a vast rural area with two hamlets, showcasing an intricate network of roads alongside waterways, railway lines, farms

Camera Angle: Shot from above



Generative Expand on the image above.

The Generative Expand feature was used to zoom out and add additional details around the initial output.



An example of Generative Expand gone wrong



Final reference image including details
created using the Generative Fill feature

ARTWORK



In The Clouds, 2025, coloured pencil and pastel on paper



Final artwork with text overlay on vellum tracing paper

Assignment 3: Initial

Assignment Theme: Identity Remix

ARTIST STATEMENT

The three drawings that make up the Fatherhood Records series are contemplations on core memories of times spent with my father as a child. Reflections on my identity as a child are infused with the perspective I have now as a father. The settings for the scenes in these chalk pastel and watercolour pencil drawings are composed from a wide angle to emphasize a sense of distance from these moments, to suggest intimacy and isolation, and to convey the minor scale of the figures amid a vast world. These landscapes follow the lineage of rural Canadian works from artists including William Kurelek and Cornelius Krieghoff with a personal approach similar to the former artist than the outsider observations of the latter.

This series is connected through the changing of the seasons, the sun setting/rising in the background, and the growing of the child figure. References to popular and obscure songs can be found in the skywriting and the titles for each piece which relate to the era of these personal memories and add another layer to the reading of each composition. These are songs that I remember hearing when I was hanging out with my dad, often just he and I, at the cottage that he was perpetually constructing.

Good Old Game (Hello Out There) takes inspiration from Canadian icon Stompin' Tom Connors for its title and for the text message in the sky. Here we see a father figure resting after shoveling a patch of ice for the son to skate around on with no intentions of joining him. Is he too tired or has he lost his ability to play?

The text and skywriting in *Prairie Oyster (Everybody Knows)* refer to a little-known country band from Toronto that my father worked with during his time in music production. It is appropriate to interpret the title for its other references to bull testicles or an elixir meant to cure hangovers. Here the son is trying to help his father pick stones that were unearthed during the spring thaw as they prepare the crop field – a seemingly endless task to a young person.

The Gamblers (Know When) references Kenny Rogers' hit song as signs of inclement weather approach on the horizon and neither father nor son seem too concerned with that as they wade deeper into a large body of water on a seemingly idyllic day.

SKETCH



VISUAL RESEARCH



ARTWORK



The Gamblers (Fatherhood Records), 2024, coloured pencil and pastel on paper

ARTWORK continued



Prairie Oyster (Fatherhood Records), 2024, coloured pencil and pastel on paper



Good Old Game (Fatherhood Records), 2024, coloured pencil and pastel on paper

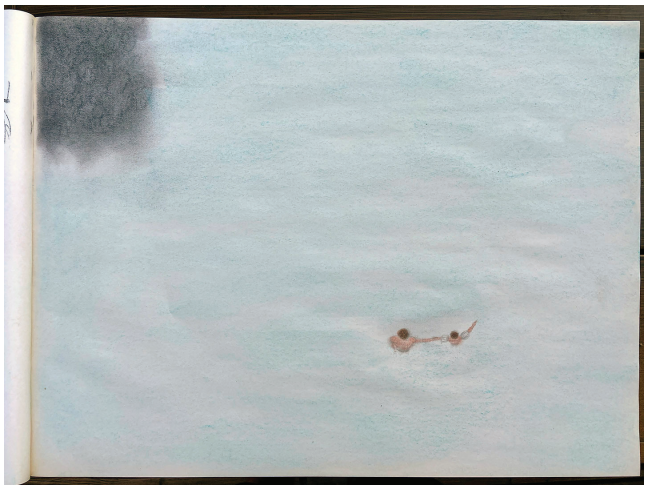
Assignment 3: Revisited

For Assignment 3 (revisited), titled *Of The Past,* I have referenced the same childhood memories with my father from the initial assignment. For the initial attempt, I referenced three separate memories — I had a photo reference for one (at the lake) while the others were drawn from imagination of undocumented memories. For the revisited assignment, I began by generating images for one of the undocumented memories (in the field) — this is a method that I was experimenting with for an assignment in my Visual Research Methods class this past winter. I was impressed with the unusual aerial perspective and relatively satisfied with the accuracy of the details that I requested, although I was hoping for the figures to be caring larger rocks — more prompt-crafting necessary. Then, I generated some images for the memory at the lake and found similar results. For the sake of time and the purposes of the revisited assignments, I only completed the drawing for the aerial perspective of the memory at the lake.

I needed a reference image primarily to help with the proportions of the bathing figures from the aerial perspective. Details and lighting of the water surface were also helpful. Firefly kept generating rocky surfaces for the bottom of the lake which I did not want. My initial attempts with Leonardo proved more accurate to what I envisioned so I used an image from this model as my reference. I opened the Leonardo image in Firefly's Generative Expand interface to once again get a more zoomed out view and more details of the lake. Looking back on it, I don't know if this was necessary since I developed my own circular wave texture in the drawing. The text in this piece derives from readings, podcasts, and conversations on the topics of creative and spiritual practices.

See Findings in Chapter 5 of the thesis for more details.

SKETCH



VISUAL RESEARCH USING FIREFLY



PROMPT: bird's eye view directly above a Canadian father, in his mid-40s with curly reddish hair, and son, around 8 years old with reddish hair, picking large stones in a fallow farm field; they are apart from each other; cold, early spring.

Camera Angle: Shot from above

Style: Nostalgiac



PROMPT: wide angle bird's eye view of a father, in his mid-40s with reddish hair, and son, around 8 years old with reddish hair, picking large stones in a fallow farm field; they are apart from each other; cold, early spring.

Camera Angle: Shot from above

Style: Nostalgiac, Faded





Generative Expand applied to the image above.

VISUAL RESEARCH USING FIREFLY



PROMPT: wide angle view from directly above of two male swimmers standing in a blue lake; one older, one toddler looking away in different directions; they both have curly, reddish hair and fair skin; bright summer day; beach; nostalgic, 1980's; small figures, big landscape.

Camera Angle: Shot from above

Style: Nostalgiac, Faded

Composition Reference: I used the image on the following page as a composition reference.



PROMPT: High-altitude, bird's-eye aerial shot of a picturesque lake on a bright, sunny day with a nostalgic 1980's tone, featuring a father, in his mid-40s with reddish curly hair and wearing a speedo, and a small four-year-old boy with reddish hair and a speedo, holding hands, surrounded by vast expanse of calm water, with no trees or coastline in sight.

For all Firefly images included in this process book, I used the newset model (Firefly 4). However, here is an example of one of the tests that conducted using the older Firefly 3 model — not bad but clearly inferior details.

VISUAL RESEARCH USING LEONARDO



PROMPT: Aerial view of a serene lake on a bright, sunny day with a few puffy white clouds scattered across the sky, where a father, likely in his mid-30s with a gentle smile and a few days' worth of stubble, stands chest-deep in the calm water, with his arm wrapped gently around the shoulder of a boy, around six to eight years old, who has a bright, curious expression and a messy tangle of reddish hair, the father's eyes gazing fondly at the boy as they both gaze out at the surrounding landscape, the atmosphere infused with a sense of tranquility and warmth.

FINAL REFERENCE IMAGE USING LEONARDO



PROMPT: View from directly above father and son in a serene lake on a bright, sunny day with, 1980's; father is in his mid-40s with curly reddish hair and wearing a dark blue speedo, holding hands with his son, around four years old, who has reddish hair and wearing a dark blue speedo; nostalgic, 1980's, vintage photo

Model: Flux Dev
Prompt Enhance: ON
Style: Dynamic

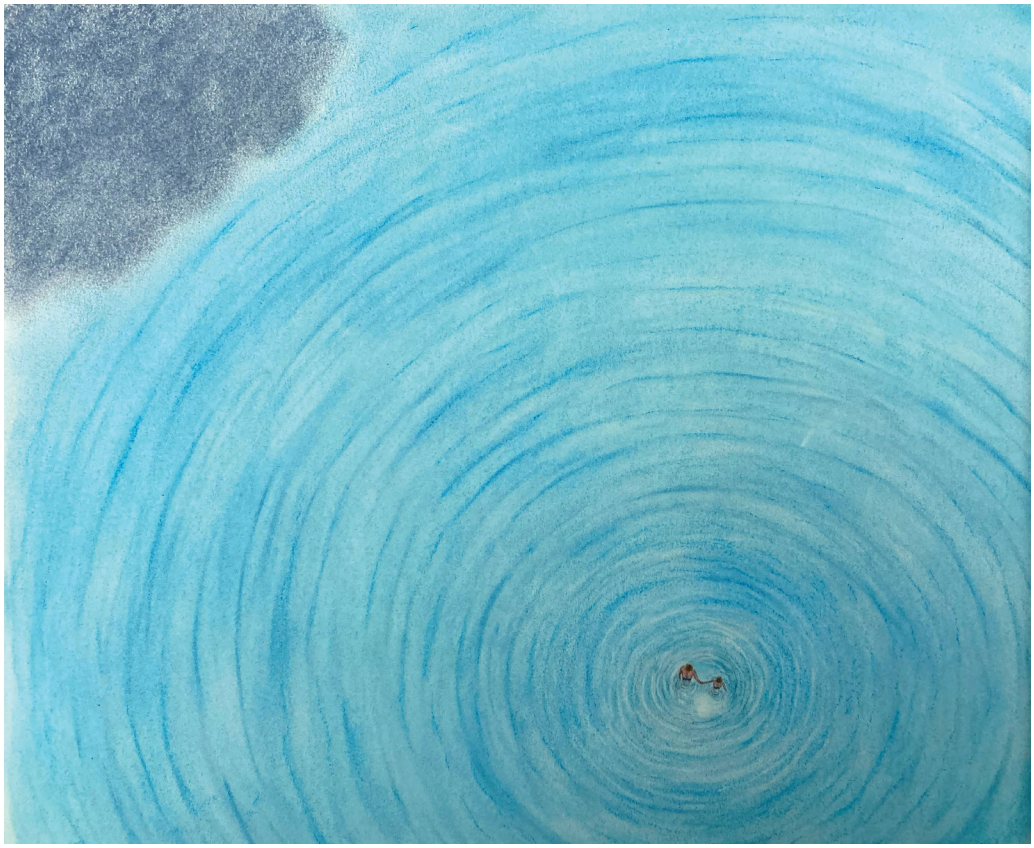


I brought the above image from Leonardo into Firefly in order to use the Generative Expand feature.



As I used the Generative Expand to add more background, the results became more distorted with a fish-eye look.

ARTWORK



Of The Past, 2025, coloured pencil and pastel on paper



Final artwork with text overlay on vellum tracing paper