The Anamorphic Cinema

Alison Reiko Loader

A Project
in the Department
of
Communication Studies

Presented in Partial Fulfilment of the Requirements
for the Degree of
Master of Arts (Media Studies) at
Concordia University
Montreal, Quebec, Canada

August 2011

CONCORDIA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared

By: Alison Reiko Loader

Entitled: The Anamorphic Cinema

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

Master of Arts (Media Studies)

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

Signed by the final examining committee:

_____Chair
Dr. Jeremy Stolow, Communication Studies

_____ Examiner
Dr. Owen Chapman, Communication Studies

_____ Examiner
Dr. Kim Sawchuk, Communication Studies

_____Supervisor
Dr. Monika Gagnon, Communication Studies

Approved by
                Peter C. van Wyck, Graduate Program Director

Friday, Sept 9, 2011 _____
                Dean Brian Lewis, Faculty of Arts and Science

Abstract

The Anamorphic Cinema

Alison Reiko Loader, MA
Concordia University, 2011

The Anamorphic Cinema is a research/creation project that proposes new ways to engage with moving images by applying digital imaging and animation to catoptric anamorphosis, a perspectival technique from the seventeenth century that deforms pictures so they appear to re-form in the reflection of a curvilinear mirror. Culminating in *Ghosts in the Machine: The Inquest of Mary Gallagher*, a looping fifteen-minute, site-specific video installation investigating the culpability of a working class woman in the 1879 murder and beheading of another, this project problematizes representation as re-presentation. Dramatic performances of witness testimonies and newspaper texts, layered with diverse archival images, form a network of narratives that re-vision the case within a context of nineteenth-century spectatorship, visual culture and disciplinary discourses. Made for exhibition in Griffintown, the location where the events it depicts took place, Ghosts emplaces and embodies multi-perspectival views, encouraging mobile spectatorship and passive interaction. Audience members cannot alter the work directly but their experiences are dependent on their relative positions and angles of view. The anamorphic cinema literally re-presents partial perspective and situated knowledge, materializing theory into phenomenological practice.

Acknowledgements

Table of Contents

List of Illustrations

Fig. 1. *Ghosts in the Machine: The Inquest of Mary Gallagher* exhibition at the Centaur Theatre rehearsal space 1-5 June 2011. Photo by author.

I. Anamorphic Apparitions: An Introduction

Spectres emerge from the anamorphic cinema, the culmination of three years of experimenting with anamorphic moving images. In Ghosts in the Machine: The Inquest of Mary Gallagher, they shift physical relationships between viewers and viewed, through an installation of floor projections and cylindrical mirrors. Created to enrich and destabilize narrative and representation, historic texts and modern re-enactments by stage actors meet in a looping triptych of short video clips that feature a gruesome murder from nineteenth-century Montreal. These ghosts form my anamorphic cinema, which uses animation and digital imaging to revive the centuries-old perspectival technique known as anamorphosis.

The word 'anamorphosis' comes from the Greek words *ana* (meaning 'again') and *morphe* (meaning 'form') and denotes the optical effect that inverts rules of perspective to distort images so they appear to 're-form' to an undistorted state when seen from a specific angle or in the reflection of a curved mirror. European artists and mathematicians developed this extreme perspectival technique during the early Renaissance, describing methods of construction in treatises on drawing, and creating religious and secular works of art throughout Western Europe to the end of the eighteenth century. In 1533, Hans Holbein the Younger

painted the most famous example of anamorphosis in *The Ambassadors* (see fig. 2). Philosophers have long since contemplated the smear at the base of this work that resolves into a human skull.

Fig. 2. Hans Holbein the Younger, *The Ambassadors* and a detail of the rectified anamorphic skull. 1533. Oil on oak. National Gallery, London.

I drew my inspiration for *Ghosts* from another *memento mori*—Mary Gallagher, the headless phantom said to wander the Montreal neighbourhood commonly known as Griffintown. *Ghosts in the Machine* is a site-specific video installation based on the inquest into her murder, and made for exhibition at the former police station where that investigation originally took place. The 'ghosts' of my project title refers then to the ghost of Griffintown, in addition to the other voices and images from the past that I conjure in an examination of her murder. The word 'machine' also evokes multiple meanings—the anamorphic apparatus of my project, the operations of Victorian discourses, and the nineteenth-century legal system that led to the conviction of Gallagher's friend and alleged killer, Susan Kennedy. The phrase 'ghosts in the machine' references philosopher Gilbert Rylee's critique of the ontology of René Des-

cartes that, like the Gallagher murder, features the separation of mind from body.[1] The connection between Cartesian theory and anamorphosis forms part of what drew me to the gruesome death and decapitation of the ghost of Griffintown. Although a good murder mystery, even without a flagrant philosophical allusion, offers broad appeal.

This written component of my MA thesis project encapsulates my research/creation work in the development of the anamorphic cinema. I begin by explaining my intentions, identifying key theoretical concepts and related media works that might be considered examples of *expanded cinema* (a term popularized by Gene Youngblood in 1970). I then review some of the literature on anamorphosis before detailing the production of *Ghosts.* This section describes my research of the Gallagher case and its late nineteenth-century context, and how I integrated my findings into a moving image installation. I follow with an account of techniques and methods developed and refined for the anamorphic cinema, and conclude by reflecting on my two recent exhibitions. Though this document proceeds in a relatively linear fashion, reading, thinking and making did not. Research and creation happened recursively and simultaneously with one inspiring the other throughout development and production. As a physical manifestation of anamorphosis' ability to problematize representation, *Ghosts in the Machine* is not an illustration of research and theory but rather is research and theory in practice.

II. Expanded Cinemas: Theoretical Viewpoints and Related Works

My re-vision of the murder of Mary Gallagher as anamorphic cinema is part of an ongoing quest to create alternative expressions of moving pictures. I animate images to tell stories but also seek ways to problematize the representations they make, and expose the effects of technologies that make them. I have tried to create works that illuminate the passiveness of experience offered by traditional cinema. My interest in anamorphosis follows investigations into stereoscopy, which build on my foundation as a digital animation and experimental filmmaker. What connects these practices is the investigation of human visual perception and cognition through the production of images. Frame-by-frame animation, three-dimensional imaging, and perspectival techniques are all optical tricks created to fool the eye. In my animated installations, I try to expose how such illusions work, and highlight the agencies and effects of viewers, screens, moving images, their contexts and the relationships between them. I categorize these works within *expanded cinema*, Gene Youngblood's term that Janine Marchessault and Susan Lord describe as "an explosion of the frame outwards towards immersive, interactive and connected forms of culture" (7). Amidst other theories of screens and representations, I use this genre that promotes alternative cinematic experiences, to clarify my intentions and to bracket media artists whose work inspires and informs my own.

Motion picture screens increasingly proliferate in everyday life; yet feature the same familiar rectangular shapes framing us in the same familiar ways. As Anne Friedberg observes, these "virtual windows" figuratively and literally position us, transfixed and transported away from our material space and time. Even in abstract, non-narrative, and non-linear films, cinema audiences sit like Plato's prisoners motionless in the dark—facing the same direction, seeing the same picture, and following the same linear progression of time. Jean-Louis Baudry speculates that the correlation between the philosopher's cave and the cinema indicates an intrinsic human desire to regress to a pre-Symbolic, pre-subjective, womb-like state that is hallucinatory and paralytic ("The Apparatus").[2] Yet looking back to periods before cinematic experience stabilized into its present form, we find diverse encounters with moving images. There are numerous pre-cinema technologies that might have developed into alternative configurations. Thus many artists seek possibilities for the moving image that

include radically different temporal and physical arrangements; the creators of the multiscreen productions of Expo 67 (Colin Low, Roman Kroitor, Graeme Ferguson, Raduz Cincera, Josef Svoboda, etc.,) that inspired Youngblood's *Expanded Cinema* being of particularly note. Yet future cinemas may also be found among pre-cinematic histories, and contemporary artists such as Eric Dyer, Toshio Iwai, Zoe Beloff, William Kentridge and Rose Bond re-imagine small instruments that feature cyclical motion, immersive installations of still and moving imagery, and spectacles of projected light.

Eric Dyer is an American experimental animation filmmaker and media artist whose work recalls the zoopraxiscope that Eadwaerd Muybridge invented in 1879 to project cycles of his photographic sequences. Dyer constructs his 'cinetropes' as spinning wheels of layered animated sequences that form composite images when filmed in motion. He garnered international attention in the animation world with his dizzying film *Copenhagen Cycles* (2006), which viewers assumed was achieved by digital compositing before seeing his marvellous kinetic sculptures of printed video frames reassembled in concentric rings. Dyer went on to exhibit this work and his subsequent *Bellows March* (2009)—made of scenes shot from sculpture-based cinetropes of rapid-prototyped poses printed from digital 3d animation sequences—by simultaneously displaying his models in motion alongside projected closed-circuit live video of their animated effect.

Dyer can be considered a direct descendent of Japanese media artist Toshio Iwai who began constructing motorized zoetropes illuminated by strobe lights in the late 1980s. While Iwai later moved to more interactive, computational projects, *Morphovision* (2005) made with NHK Science and Technical Research Laboratories recalls his earlier creations. Scanning light illuminates a spinning solid object, and when scan and spin speeds synchronize, the object appears to deform.[3]

Thus Dyer and Iwai combine the techniques of old optical toys with contemporary technologies to create new visions that reveal and complicate the illusion of cinematic motion and move moving pictures into the realm of sculpture. Reviving pre-cinema devices with his narrative drawings in motion, South African artist William Kentridge has achieved perhaps the

best-known examples of film animation migrating to fine art. However, in place of new media, Kentridge uses charcoal and 35mm film, animating straight ahead by making small incremental changes to a single drawing, and photographing each modification as it is made. Having created stereoscopes, shadowgraphs, zoetropes and phenakistoscopes, his installation *What Will Come (Has Already Come)* (2007) features hand-drawn cylindrical anamorphic animation. The work, like his other projects, alludes to a colonial history of Africa that may also act as a *memento mori* cautioning us against hubris; as such, it recalls the anamorphic skull of Holbein's proud *Ambassadors.*

Kentridge's animated installations are imbued with storytelling that is at once historical and personal. Using optical devices as platforms for larger narratives, they relate to projects like those of American artist Zoe Beloff who also looks to the age before cinema to re-create "philosophical toys, as objects to think with" (Beckman 69). Beloff mines the nineteenth century for both gadgets and stories. In revisiting and reinventing optical phenomena as installations and performances, she features stories of Victorian women previously represented exclusively from the perspectives of the psychiatric and medical professionals that assessed them. In examining the often-celebrated performances of these marginalized individuals, Beloff plays with the meaning of 'medium', re-presenting the mediations of hysterics and spiritualists in installations such as *The Influencing Machine of Miss Natalija A* (2001) and *The Ideoplastic Materializations of Eva C* (2004) from subaltern points of view. Though I have only experienced these works through online documentation, I am intrigued by Beloff's playful integrations of concurrent histories of women and spectacle.

The recovery of forgotten histories by re-invented or expanded cinema informs the recent work of Canadian-American animation filmmaker and media artist Rose Bond. The optical technology that Bond reimagines is the window, and she creates outdoor cinematic events by illuminating buildings with animation projected from within. Windows, transformed into motion picture screens, offer glimpses of the past to outside viewers and passersby. Re-visioning architecture as containers for recollection, Bond uses archival and oral histories to create site-specific projects that evoke partial views and fragmented memories. Among

them, *Gates of Light* (2004) presented street viewers historicized visions of New York's Eldridge Street Synagogue and its immigrant surroundings, while recently *Broadsided!* (2010) examined class, crime, and justice from the windows of the former court, prison and castle in Exeter, UK. These works are made for mobile and often-accidental audiences, and with the site of installation and its spatial affect playing major roles in content and experience, they invert the isolation of black boxes and intentional spectatorship found in traditional cinematic and gallery-based works.

Rose Bond is innovative as an animation artist that considers place and space as integral elements to her creations. Yet Bond (who is sponsored by a trade show production company), acknowledges that creating the phenomenological and immersive space of a multi-projection environment has long been technically and financially out of reach for most would-be expanded cinema artists ("Poetics and public space" 69). Thus an approach to spatial and emplaced narrative is perhaps more readily found in the world of audio art. Though my research is based in visual culture and representation, I conclude this media review with a few notes on Canadian installation and sound artist Janet Cardiff. Cardiff's soundwalks such as *The Missing Voice (Case Study B)* (1999), layer stories over site, escorting listeners physically through narrated environments while transporting them through time. Though her sculptural audio installations with partner George Bures Miller are neither place-specific nor easy to mount, they highlight the physical and spatial qualities of sound. Their *Forty Part Motet* (2001) of forty speakers replaying forty individually recorded choral voices presents a transcendent but phenomenological experience of sound that shifts with the relative location of each listener. I imagine anamorphosis as visually analogous to that effect, and in my limited fashion recall Cardiff and Bures in the audio component of *Ghosts in the Machine*.

These artworks comprise a small fraction of projects informing my recent research. Though there are numerous installation artists who work with multichannel video, filmmakers that create multi-perspectival narratives and visual artists that use anamorphic techniques, I have tried to describe works that are particularly innovative and relate to my own, in multiple and layered ways. Commonalities include the creation of old and new media hybrids, the

use of animation and manipulated moving images, the specificity of site, and the shifting phenomenological experiences of content.

I reimag(in)e moviemaking by adding motion to cylindrical anamorphic imagery. Genealogically, this mostly forgotten relic sits between its Renaissance sister—orthodox perspective—and the nineteenth-century inventions of animation, photography and cinema. My use of anamorphosis in an expanded cinema corresponds to its earlier history of problematizing perspective. Mirror anamorphosis reveals each re-presentation in projection, deformation, re-formation and reflection as mediations that add distortion. Perceptions are fleetingly constructed and contingent on specific conditions, with transient 'true' images wholly dependent on the cooperation between viewer and apparatus. As such they disrupt meaning, problematize truth, and offer a platform for literally multi-perspectival forms of storytelling.

The anamorphic cinema as expanded cinema is a creative response to Donna Haraway's call for "feminist objectivity." It is a self-reflexive apparatus that literally embodies "partial perspective and situated knowledge", challenging the fiction of transcendental objectivity by exposing and acknowledging its own distorting operations and limited views. It breaks a hegemonic configuration that frames vision, viewer and story by working with networks of multiple and diverse positions, and allowing split and multidimensional subjectivities.

Using anamorphosis, I have created cinematic experiences that invert many of the central tenets of conventional movie going. Where cinema screens are monolithic wall-mounted rectangles, mine comprise a series of floor-based discs. Thus, screens and viewers inhabit the same space with images no longer appearing as players on a distant stage but rather circulating among the crowd. Where cinema audiences sit immobile, anamorphic spectators sit, stand and change locations whenever, wherever and for whatever durations they choose. Linear time structures give way to repetitions and loops, allowing individuals to create their own narrative sequences without modifying the work presented to others. What is seen depends on where one stands, and disparate dual presentations of every picture—one projected and one reflected, one deformed and one re-formed—are always present. Directly connected to physical states—the location of the body, the angle of the head, and the direction of the gaze—viewer perceptions are subject to embodied and mobilized viewing. This is

a phenomenological experience of cinematic storytelling that restores agency collectively to each and every audience member. Their place in relation to the picture presented is perhaps no more significant than that of the average moviegoer, except in the case of the anamorphic cinema, this condition is a blatantly evident aspect of the work. Screens and viewers are performing and located bodies in places and spaces. They never truly exist outside of time or geography. One goal of the anamorphic cinema is to recall that fact.

Figure 3. The anamorphic cinema with Diana Fajrajsl as Mary McCarthy in *Ghosts in the Machine*. Photo by

III. Curious Perspectives: A Literature Review

Though a relatively obscure art form, anamorphosis enjoys a long history in Western art and philosophy. Developed by early Renaissance artists and mathematicians, it peaked in the seventeenth and eighteenth centuries, and had long fallen from fashion when it attracted scholars of the twentieth century. Among them, art historian Jurgis Baltrušaitis is particularly significant, reviving interest with his 1955 book *Anamorphoses ou perpectives curieuses* by detailing the European development of the technique and drawing connections to philosopher René Descartes. Anamorphosis is thoroughly entangled with the ontology of Cartesian

dualism—the separation of mind from body—but its role as supporter or detractor has been much debated since Baltrusiatis' landmark text. Recently, art historian Lyle Massey has researched and written extensively on the topic of anamorphosis. In his 2007 *Picturing Space, Displacing Bodies: Anamorphosis in Early Modern Theories of Perspective*, Massey follows a middle line between science-oriented histories of perspective, and philosophical approaches to vision and subjectivity. My research on anamorphosis thus draws heavily on Baltrušaitis and Massey, but includes writings by other art historians, media theorists and scholars of science and technology.

Anamorphic Art is the 1977 English translation of Baltrušaitis' original publication with an expanded text that includes additional research on "mirror" or "catoptric" anamorphosis (159-169), the technique that I feature in my research/creation project. Rather than requiring a skewed angle of view, this type of deformation is corrected in the curvilinear reflection of a conic or cylindrical mirror. Catoptric anamorphosis appeared in Europe in the seventeenth century, but Baltrušaitis speculates that this curious perspective originated in northeast Asia, citing Chinese examples from the Ming dynasty (c.1368-1644). Its effects, he writes are "more exact and striking and more surprising, too, than in earlier versions, since the subject in its reconstituted and distorted forms is seen from the front at the same time" (Baltrušaitis, 131).

Catoptric anamorphosis was a popular curiosity among Europeans. Fred Leeman describes its prevalence in the eighteenth century, writing that they "enjoyed great vogue and were no longer in the least recherché" (134). Yet in the following century this was no longer the case. In his 1831 *Treatise on Optics*, physicist and kaleidoscope inventor Sir David Brewster wrote that anamorphic mirrors were difficult to find, although he offered this praise.

> Among the ingenious and beautiful deceptions of the 17th century, we must enumerate that of the reformation of distorted pictures by reflexion from cylindrical and conical mirrors... the greatest degree of wonder is excited whether the original image is concealed or exposed to view (Letters on Natural Magic 168-169).

Leeman explains that the daguerreotype, a photographic technique patented in 1839, supplanted public interest in anamorphic imagery (134).
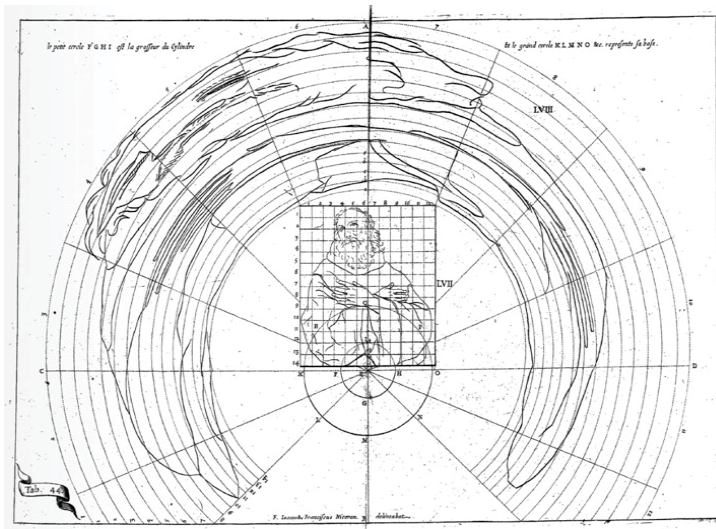
Fig. 4. François Niceron, catoptric cylindrical anamorphosis from *La perspective curieuse*, 1651.

The decline of anamorphosis coincided then with the re-imagining of vision at the beginning of the nineteenth century theorized by Jonathan Crary in *Techniques of the Observer* (1992). Crary posits that in the period just preceding and thereby anticipating the invention of photography (and subsequently cinema), optics developed with a subjective and embodied observer in mind. In the seventeenth and eighteenth centuries prior to this rupture, Crary argues that vision was seen as a Cartesian arrangement of de-corporeality analogous to the operations of the *camera obscura*, an optical device that places the observer inside a darkened chamber. Yet the popularity of catoptric anamorphosis, which insists on embodied observation, is coincident with this period. Does anamorphosis then confound or confirm Crary's thesis? To answer this query, one would have to determine how this curious perspective relates to Cartesian ontology.

There is historical evidence linking anamorphosis to René Descartes. François Niceron, who wrote *Thaumaturgis Opticus* in 1646 (republished as *La perspective curieuse* in 1651), was among the Minim friars who actively practiced and created treatises on anamorphosis (see fig.3). Calling their Parisian monastery a "Cartesian centre," Baltrušaitis connects the Minims to the French philosopher through his regular correspondence with Fr. Marin Mersenne, claiming "their relationship deeply influenced the spirit of the whole group" (60-61). Philosopher Karsten Harries suggests that influence was returned, referring to a page in Descartes'

inventory and a letter from 1629 that indicate the philosopher's interest in "the art of conjuring" and "applied optics" (312). On the Cartesian nature of anamorphosis, Harries adds:

> Anamorphosis thus would seem to function as a metaphor for the fact that first of all, the world presents itself to us as meaningless and confusing; only a change in point of view reveals its deeper order and meaning... Descartes' method depends on a similar shift in point of view... But what Descartes must have found more significant is that such effects rest on a precise science. Magic has been replaced with optics (313-314).

Science and Technology Studies scholar Bruno Latour has likewise considered that period's movement from magic to mathematics. He describes regular (or orthodox) perspective as an "immutable mobile," that preserving "optical consistency" became an effective transmitter of vision, and therefore of knowledge (real or fictive). As such, he positions perspective as an actor in the transition to "scientific culture" ("Drawing Things Together" 27-31). Yet Latour places anamorphosis at least figuratively within a pre-scientific, pre-Cartesian order. His claim being that Holbein's anamorphic skull in *The Ambassadors* represents the old world of divination, a *memento mori*, juxtaposed against the masterfully mimetic vision of an increasingly dominant "new geographic world" ("Thou shall not" 9-13).[4]

Art historian Martin Jay takes a similar stance, placing anamorphosis within "the baroque ocular regime" calling it "the uncanny double of what we might call the dominant scientific or 'rationalized' visual order," which he refers to as "Cartesian perspectivalism" (*Downcast Eyes* 45, 81). Noting the revival of anamorphosis by twentieth century thinkers, Jay considers such discourses "a recovery of a subordinate, heterodox and virtually obliterated visual practice" (48-49). Rejecting transcendental objectivity, they carry anamorphosis to the formation of subjectivity and into the realm of psychoanalytic theory.

Lyle Massey contends that even regular perspective is anti-Cartesian since it "requires and projects an embodied subject," demanding its viewers displace their own points of view for that of a *specifically located* other (38). Since Descartes' *cogito* denotes a transcendent point of view, Massey argues that anamorphosis simply makes explicit that orthodox perspective represents the views of absent others, forming what Martin Jay calls a "hegemonic visual

style" ("Scopic Regimes" 16). Recalling Martin Heidegger, Martin Jay writes, "The natural world [is] transformed through the technological world view into a 'standing reserve' for the surveillance and manipulation of a dominating subject" (9-10).

Psychoanalytic theorist Jacques Lacan places anamorphosis in the unattainable outer realm of the Real. Here we find ourselves before or perhaps at the edge of *The Ambassadors* once again. Upon reading Baltrušaitis' description of Holbein's painting, Lacan identifies the always-temporary re-solution of the anamorphic skull as a temporal process of "re-turn." Its phantom appearance in front and outside the picture plane corresponds to the "lack" or "gaze as *objet a,*" which preconditions entry into, but through loss must always remain exterior to, the Symbolic Order where subjectivities form (Broadfoot).

Thus the art historians and philosophers go back and forth, unable to reach consensus about anamorphosis and Cartesian theory. Here is what I draw from their apparently divergent points of view. Multiple discourses couple and counterpose anamorphosis with orthodox perspective, modernity's 'normal' way of depicting the world. This dominant scopic regime, characterized by a located monocular Gaze, can be seen at work in photography, live action cinema, television and 3d computer imaging. There, we find a Cartesian-inspired, science-driven illusion that misapprehends perspective as objective because its optical consistency and ego-pleasing view belie that what is perceived is the subjective look of an other. Anamorphosis confounds this configuration, demonstrating a contingent and wavering vision by inverting the mathematics of its orthodox double, and replacing an elusive gaze (a Glance, really) back within the bodies of each viewer.[5] The performance of anamorphic representation—a scopic dance between seer and seen—restores subjective, emplaced and embodied contexts, once disguised and possibly supplanted but never wholly lost.

IV. Ghostly Re-Visions: Research and Methods

Recent scholars may critique the Cartesian severing of mind from body, but Mary Gallagher suffers a fate far worse. Having endured a *physical* severing of mind from body, the decapitated phantom has wandered the Montreal neighbourhood of Griffintown since 1879. The lost soul embodies the problem with disembodiment, troubled by burdens of representation. Yet narratives of the ghost of Griffintown do more than evoke memories of a broken community, they enact nineteenth-century outlooks—on spectacle, criminality, madness, gender and class—that have endured since Gallagher lost her head.

I proposed to enforce intellectual and physical perspectival shifts in re-visioning the murder of Mary Gallagher, problematizing truth in representation through re-presentation. In the anamorphic cinema, audiences encounter multiple narratives by moving between projections, reflections and through an installation space. I wanted to destabilize the stories of Gallagher and her alleged killer Susan Kennedy—as poor Irish working girls—by situating their representations within nineteenth-century discourses of female criminality and madness. By presenting this work in the place where the depicted events occurred, site-specificity benefitted the project in numerous ways—providing resources, inspiring storytelling, and adding layers of meaning and affect.

This chapter interweaves descriptions of research and production on *Ghosts in the Machine: The Inquest of Mary Gallagher*. I begin by explaining my selection of site and content, and continue with an accounting of source material on the Gallagher story to form one possible narrative. Next I frame representations of the murder within nineteenth-century theories of female criminality and visual culture. Having structured the installation as a dramatic re-presentation of the Gallagher inquest, I then describe the process of casting, filming, and editing. I conclude by recounting the collection of supplemental visual materials (in the relative absence of images linked directly to the case) and the integration of this additional content with the recorded and de-formed performances of my players.

Stories and situations: selecting a site of installation and inquiry

My interest in site (like sight) preceded my discovery of Mary Gallagher. In 2010, community activists and artists organized a *Nuit Blanche* event in response to the imminent threat of demolition and large-scale condominium development in Griffintown. Neighbourhood residents, artists and business owners such as Judith Bauer, Esther Hagerman and Harvey Lev formed the *Cultural Corridor* to demonstrate an alternative to the radical and rapid commodification of the area, by re-imagining Griffintown as a place of heritage and cultural activity, and by challenging prevailing perceptions of it as an abandoned site. The intervention had an ad hoc but communal sense, and with a friend, who rented an artist studio in the area, I installed a selection of anamorphic and stereoscopic moving image works in the magnificent loft of New City Gas. That February evening, hundreds of Montrealers visited the historic gasworks filled with visual and performing arts by students, amateurs and seasoned professionals. The grassroots approach to art and community, encouraging feedback, and the sight of my anamorphic prototypes projected onto old wood floors fostered my desire to create an installation expressly for the space. Months later I received a call for proposals for site-specific art in Griffintown, and in conducting research for a submission, I discovered the story of the resident ghost. I thought the re-formation of the nineteenth-century decapitated prostitute would make perfect content for my anamorphic cinema, and happily *Urban Occupations* founder and curator Shauna Janssen agreed.

Starting my final project with a public exhibition date and location proved a powerful motivator and helped procure resources. Janssen became an essential collaborator assisting with practical matters like reserving and transporting installation equipment, coordinating publicity, and organizing the vernissage and scheduled visits. As a PhD candidate in the Concordia University Humanities program with a background in performing arts and interdisciplinary studies, Jansen understood my approach and never failed to offer support and feedback. Furthermore her deep ties to the theatre community proved an invaluable resource. Upon accepting my proposal for an anamorphic video installation about Mary Gallagher, she suggested and procured the use of the Centaur Theatre rehearsal space and workshop for the exhibition as an alternative location to New City Gas (see fig. 5).

Fig. 5. Centaur Theatre rehearsal space and former Griffintown police station. September 2010. Photo by author.

This second Centaur space, located at 217-219 Young Street, is the site of the former Griffintown police station. Founded at the end of 1847 in response to a rapid influx of immigrants escaping the Irish Potato Famine and closed some time in the early twentieth century, Station #7 was at the hub of the Gallagher murder case. Located two blocks from the scene of the crime, it served as a base for the investigation and inquest. In addition to the building's historic connection, the extension (added during an earlier incarnation as factory space) houses a large open rehearsal space—almost 30 x 50 feet, equipped with well-worn hardwood floors, blackout curtains, a full-size ceiling grid, mixing board, speakers and numerous electrical outlets on multiple circuits. In other words, the building has everything a video installation might require. The Centaur Theatre kindly granted us permission to use the space at the end of its regular theatre season in June 2011, the anniversary month of the Gallagher murder.

Hauntings and lost memories: representing the past

Mary Gallagher has achieved remarkable renown for a working (class) woman that lived in one of the poorest areas of Montreal before her death over one hundred and thirty years ago. Current legend states that her ghost returns every seven years searching for her long lost head, and with growing public awareness of her rapidly developing old haunt, her tale becomes increasingly told. However, in recounting the origins of the ghost of Griffintown, histories are varied, partial and often contradictory. They confuse dates, omit players, and embellish narratives. My intention has not been to correct or account for such retellings but to present alternative points of view that that contextualize, re-voice and re-vision the past. However, this project began with an examination of existing accounts.

Portrayals of the slaying and ghost of Mary Gallagher appear in diverse texts about the Irish in Griffintown. Popular history books, such as Sharon Doyle Driedger's *An Irish Heart: How a*

Small Immigrant Community Shaped Canada (2010) and Pat Burns' *The Shamrock and the Shield: An Oral History of the Irish in Montreal* (1998) recount a cautionary tale that demonstrated the evils of vice and frightened local children. Outlines of the murder follow a narrative re-established in 1990 in *The Montreal Gazette* newspaper article by journalist Alan Hustak, which likely prompted the septennial neighbourhood reunions organized as masses and ghostwatches for Mary Gallagher (Hustak, 12). Hosted by Father Thomas McEntee in 1991, 1998 and 2005, one such gathering opens Richard Burman's 2003 documentary video, *Ghosts of Griffintown.* There we see how the Gallagher legend has become a locus for the community long after its dispersal. In his book *The Ghost of Griffintown: The True Story of the Murder of Mary Gallagher* (2006), Alan Hustak observes that in the 1970s, the dismembered ghost became a metaphor for the fractured neighbourhood that it haunts (98-99). Likewise, historian Matthew Barlow argues that the legend helps the Montreal Irish community create a "lieu-de-mémoire." [6] However, the memorializing of the neighbourhood is a practice not exclusive to descendants of Irish Montreal, and Mary Gallagher makes appearances in Héritage Montréal walking tours of the area. Threats to the city's heritage transcend ethnicity, and in the vestiges of Griffintown, one of Canada's first industrial neighbourhoods, its resident wraith personifies new ruptures with the past.

The ghost of Griffintown conjures the multiple breaks and displacements experienced by its haunts. Yet however varied the contexts and situations that evoke the Gallagher story, the murder—who did it and why—remains frozen in time. Retellings rarely question the culpability of Susan Kennedy, generally portraying her as a rival prostitute fuelled by alcohol and jealousy. Hustak's 2006 book contextualizes the story of Gallagher's murder within a Victorian Montreal, but his detailed and often embellished exposition hardly strays from the prevailing narrative he helped prescribe. I find myself unable to resist a desire to uncover what might have remained hidden. What Griffintown memories of the Gallagher murder have not been told? Could more be discovered among inherited anecdotes—perhaps gossip, rumours, and inside information that had never made it into written accounts?

While oral histories recount personal encounters with Gallagher's ghost, it seems unlikely that families passed down memories of the case. Even Maureen Kiely, whose family lived and

operated a business in their lot situated across the street from the scene of the crime, had no knowledge of the murder before attending one of Father McEntee's events.[7] I spoke informally with Gallagher experts Hustak and local storyteller Dennis Delaney (currently working on his own Mary Gallagher book), who both confirmed that the bulk of their research had derived directly from old newspaper stories. One such account, an article published October 27, 1928 in *The Montreal Daily Star*, demonstrates how quickly Gallagher's killing was forgotten. The journal reported sightings of the ghost, yet its description of the murder was full of errors even though that same publication had originally covered the case in great detail. It is therefore likely that the tales of Mary Gallagher that currently circulate originate from fairly recent reconstructions.

Though accounts of the ghost of Griffintown may emerge from contemporary sources, we find their roots in the nineteenth-century press. Dailies from 1879, primarily *The Gazette*, *The Star* and the *Montreal Herald*, began chronicling the Gallagher murder immediately following the discovery of the body, and again during the October trials. The popular press traded in stereotypes—the monstrous murderess, the idiot-husband, and the affable drunk—and inscribed discourses of public hygiene in descriptions of the crime scene. As numerous articles reveal, the case was a major spectacle played on multiple stages: the crime scene crowded with spectators, the sensationalized reports, and the inquest and trial performances of suspects, witnesses, and lawyers. While other primary sources such as police and court records have since vanished, newspapers remain. They recount witness testimonies word for word, yet differences between articles indicate that what was published likely depended on each (anonymous) journalist, their interests and how quickly and accurately they could take notes. However, I was able to make some sense of the events in question: a probable timeline for the murder, the identities of and salient information given by witnesses, and the accounts of each of the three main suspects.

Friendships and deaths: a case re-view

On Friday, the 27th of June 1879, in a two-room second-floor flat in the crowded, Irish working class neighbourhood of Griffintown, somebody killed Mary Gallagher. They chopped off her hand and her head, and threw them into a bucket or laundry tub. The apartment, located at 242 William Street, was rented to her friends Susan Kennedy and her husband Jacob Mears. Gallagher would often stay with the couple, and she arrived early that morning with a young man named Michael Flanagan, whom she had met the evening before. Mears left when the other three started drinking whisky, and at the end of the day, Gallagher was dead and partially dismembered on the backroom floor. Police arrested Kennedy, Mears and Flanagan, and took them to Station #7 on Young Street just two blocks away.

Within hours of the body's discovery, the sensational crime went public. Inquisitive spectators pushed their way into the flat to see the headless corpse; thereafter, local newspapers sated morbid curiosity with almost daily accounts of the investigation, supplemented with wild speculations. They treated the poverty of those involved as signs of immorality: emasculating Mears, a deaf unemployed labourer, by describing him as a harmless idiot while transforming Kennedy into a violent, uncontrollable monster, envious of Gallagher's "professional" success. Journalists implied that both women were prostitutes. Only Flanagan was spared harsh judgement. His innocence went unquestioned but newsmen urged him to break his silence and confess to what he had seen.

The Coroner's Inquest began the day after the murder and ended ten days later. The sixteen-man jury questioned witnesses, suspects and police officers throughout the lengthy proceedings. Though no one admitted to witnessing the crime, neighbours helped establish a timeline based on morning sightings of Gallagher and the lunchtime sounds of chopping that emitted from the apartment. In the end, the jury found all three suspects guilty of the slaying, though many of them went on record with their belief that Kennedy was alone responsible. Over the summer, the Crown exonerated Jacob Mears, and so, a few months later at the beginning of October, tried only Kennedy and Flanagan. Their trials each lasted one day.

Kennedy always maintained her innocence although she was found at the scene of the crime with bloodstained clothes, and admitted to wiping the floor to prevent blood from dripping into the apartment below. She blamed the murder on a third man, but was believed by no one. Instead her lawyers argued that the evidence against her was weak, adding that even if she had killed Gallagher, she could not be guilty because she was insane. The court disagreed and even though the jury recommended mercy, the judge sentenced Susan Kennedy to death. Flanagan claimed that he had slept through the violence that took place in the next room, and left the small flat without noticing the headless body or the blood on Kennedy whose bed he was sharing. Friends and family testified that he was indeed a heavy sleeper. According to *The Star* (3 July 1879), people at the inquest had laughed at his stupor and having no motive or material evidence against him, his trial jury acquitted him of the murder and the subsequent charge of accessory.

The hanging of Susan Kennedy was scheduled for December 5, 1879, but the Canadian federal government commuted her sentence to life and she died years later at Kingston Penitentiary. On the day of her would-be execution however, another violent death occurred. While at work stowing barges for the winter, Michael Flanagan slipped and fell into the Wellington Basin, and drowned. Given the date, Flanagan's passing was indeed ironic, just as Kennedy's alleged crime was shockingly fearsome. Though they are mostly forgotten, the spirit of Mary Gallagher continues to live on. Perhaps the headless ghost remains in Griffintown, because she is otherwise unable to find piece of mind.

Representations and discourses: female criminality in the nineteenth century

Today we are more likely to seek the ghost of Griffintown than run from her in fear. Isn't that ironic when now as in the past, a homeless alcoholic prostitute like Mary Gallagher would more likely be shunned than celebrated? However, time has transformed the neighbourhood and its resident ghost from abject states of filth and poverty to sought-after objects of desire and memory. While Gallagher may well have been as troubled as her representation suggests, her makeover began as soon as she was portrayed as an innocent victim in contrast

to the deadly Susan Kennedy, all the more evil in her greater betrayal of Victorian femininity. Victim and killer were described as prettily petite and monstrously large, calling to mind the racialized depictions of English ladies juxtaposed against working class Irish women in physionomic texts, and popular political cartoons of the day (Wells, see fig. 6; Opper).

Fig. 747. – FLORENCE NIGHTINGALE.   Fig. 748.—BRIDGET MCBRUISER.

Fig. 6. Samuel Wells. "Contrasting Faces…Florence Nightingale, as will readily be seen, is developed in the "upper story," while the feminine "McBruiser," whom we have placed by her side, lives in the basement mentally as well as bodily. The former would be governed by high moral principles, the latter by the lower or animal passions…" (New Physiognomy, 1867, 537).

Contemporary accounts rarely fail to describe both Gallagher and Kennedy as prostitutes. While both had been jailed for vagrancy, drunkenness, and in Kennedy's case, assault, evidence of prostitution is at best circumstantial, and only implied by sensationalized press accounts. Yet even if Victorian Montrealers had identified Kennedy and Gallagher as working girls, what meanings would that hold? Lynda Nead explains that prostitution is a nineteenth century "construction, contributing to the definition and regulation of female sexual behaviour" (94). Within this unstable category, Nead identifies, "the two dominant images of prostitution," that apply remarkably well to representations of Kennedy and Gallagher: 1) "a figure of contagion, disease and death"; and 2) "a suffering and tragic figure—a passive victim" (106).

 Prostitution in the nineteenth century signified deviance and as such, was considered a danger to the social body. Yet its ill-defined and competing definitions—from street walkers to adulterers to even victims of child molestation—could be found even *within* texts, such as

those by criminal anthropologist Cesare Lombroso who tried to identify in those he considered prostitutes, "the stigmata of degeneration" (Rafter and Gibson, 2004, 7). Lombroso wrote that the "born female criminal" was a prostitute with masculine traits. Though his work on male criminality was widely discredited and ridiculed shortly after its dissemination, Lombroso's theories of atavism among female offenders, though full of twisted logic and contradictions, remained influential long into the twentieth century (4). Kennedy, when she is recalled, remains a degenerate prostitute while Gallagher has become a fallen woman. Who were they really and what did they look like? Was Susan Kennedy found guilty because of her appearance, or was she only imagined monstrous due to the danger to respectable norms that she represented in a tragic convergence of gender, class and bad behaviour?

In *When Women Kill* (1980), Ann Jones uncovers a history of homicidal women in America arguing that female criminality and feminism spark similar fears. Jones writes "the same social and legal deprivations that compel some women to feminism push others to homicide" (12). Both types of "deviants" (the feminist and the woman who kills) thus threaten the patriarchal values that call for the control and subordination of women. Restoration then must be made. In *Medea's Daughters: Forming and Performing the Woman Who Kills* (2003), Jennifer Jones explains that strategies used to re-establish normative values can be found in ballads, stage plays and television programs that make sense of the women who kill, and thus placate the fears that their crimes arouse. She posits that, "for over four hundred years [they] have been used to contain and control cultural anxiety evoked by the disturbing figure of the female killer" (x). Applying intertextual analysis to theatrical performances of historic murders alongside original press coverage and judiciary documentation, Jones describes "the trial itself as a performance on par with the dramatic representations that followed it" (x).

Performances and structures: from writing to compositing

Likening the trial of Susan Kennedy for the murder of Mary Gallagher as a theatrical performance that re-inscribed nineteenth century gender norms, places the preceding Coroner's Inquest and the daily press accounts in the realm of dress rehearsal and stagecraft. This re-

vision of criminal investigation and reporting towards theatrical (and hegemonic) construction is ironic given that the original site of the inquest, the Griffintown police station, is now the rehearsal space and workshop for an actual theatre. Rather than claiming to represent individuals and events, the anamorphic cinema acknowledges that its projections and distortions are re-presentations layers removed from 'truth'. Given the opportunity to re-present representations (of representations) in the space where they originally took place, in planning the production of *Ghosts in the Machine* I therefore turned to the inquest itself to create a narrative structure that would re-voice the past and support a multiplicity of skewed views. My primary sources were the newspaper texts that transcribed and interpreted the performances of witness and suspect testimony, and exemplified the nineteenth-century discourses of spectacle, female criminality and public hygiene that set the stage for the final denunciation of Susan Kennedy.

The Coroner's Inquest and its key witness statements formed the foundational structure of *Ghosts*. Using 1879 reports by anonymous correspondents of *The Gazette*, *The Star* and the *Montreal Herald,* I developed a series of short monologues to film and record. Although the original players in the Gallagher case were all of Irish descent, I wanted to emphasize the theatrical nature and universal appeal of the story and so, with the assistance of Shauna Janssen, a relatively diverse cast of six stage actors was recruited. Deena Aziz, Diana Fajrajsl, Dean Patrick Fleming, Alexandria Haber, Tristan D. Lalla, and Julie Tamiko Manning agreed to perform *Ghosts* under the guidance of veteran theater director Micheline Chevrier. We met at a rehearsal dinner where I set up a prototype installation and answered questions about the project, before assigning roles based on round table readings. Though I was open to improvisation, Chevrier was extremely adept at helping the actors through the nineteenth-century journalese and they kept faithful to the 'original' words. It was amazing to see the characters come to life and hear the restoration of voices long silenced. The performers so convincingly portrayed their parts, that I found myself changing my mind about who really killed Gallagher more than a few times. Far from deviance or monstrosity, Alexandria Haber's humanizing portrayal of Susan Kennedy was at once heartbreaking and repellent, and Tristan D. Lalla completely reversed my previous reading of Michael Flanagan from fast-talking

scoundrel to baffled drunkard. Meanwhile, I delighted at how Deena Aziz's powerful readings became ironic critiques of newspaper commentaries that made so apparent their contemptuous attitudes towards working class women.

Following this initial meeting, we scheduled the actors in one-hour blocks and completed the trouble-free one-day shoot in the studios of the Concordia University Department of Communication Studies, using equipment borrowed from Hexagram Concordia. Cinematographer Jason Lee lit the actors with *Kinoflo* portrait lights and shot them seated against a black backdrop with a *Sony EX1HD* video camera (full 1080 resolution with progressive frames at film speed), while Lachlan Fletcher recorded high resolution sound onto a *722 Audio Hard Drive* recorder. I refrained from period costume and had the actors wear black with everyday hair and makeup. I wanted and got a dramatic tone rather than one of documentary re-enactment. Shots were composed according to the nature of the texts being performed. Suspects Kennedy, Mears, and Flanagan (portrayed by Haber, Fleming and Lalla) were filmed frontally in compositions reminiscent of mugshots.[8] Policemen Cullen and Mckinnon (Fleming and Lalla) were shot in profile, their crime-solving noses filling the screens, and witnesses Burke and Golden (both played by Manning) who reported what they heard and saw were represented as ears and eyes. McCarthy (Fajrajsl), an acquaintance of Gallagher and probable police informant, was mostly a big mouth. These secondary characters were shot in extreme close ups to minimize potential confusion caused by actors playing multiple roles, and because I knew such compositions would be visually arresting having worked with similar shots in an earlier anamorphic prototype. Yet improvisations by actors proved fortuitous. Diana Fajrajsl's blood red lips were an unanticipated boon, while Julie Tamiko Manning's anachronistic piercings worked against any unintentional effects of historical mimesis. Dean Fleming moved as a symphony conductor to aid his zealous interpretation of the detailed report by the medical examiner, Dr. Guérin. His hypnotic waving, when distorted anamorphically, became a mysterious abstraction that recalled the wringing hands of Haber's Susan Kennedy.

After the February shoot, video and sound files were transferred to a *Final Cut Pro* editing station, synchronized and logged. Throughout March, takes were selected and edited into

three overlapping sequences of monologues, one for each floor projection of a final anamor-phic triptych. These three sequences (of equal duration) ran just under fifteen minutes each, making up to forty-five minutes of total footage. Structured to loop with synchronization that would moderately drift between three different projections, monologues were not the-matically organized into individual sequences, but distributed across them to create rhythm and encourage audience movement.[9] I arranged content linearly in time and took care to limit overlapping voices, making an overarching structure that was ordered as follows: 1) Susan Kennedy; 2) newspaper commentaries; 3) the medical examiner's report; 4) wit-nesses; 5) the police and their informant; 6) suspect statements; and 7) Michael Flanagan's drowning. Prioritizing voice over image, I strove for a resulting edit that functioned like a radio play. Though the bulk of my research had been mostly visual, I understood that listen-ing would be essential to interacting with content. Audio was meant to provide an intelligible foundation to hold and counter the embellished visuals, and further direct audience atten-tion by the localization of sound through speaker placement. To test comprehension and sto-rytelling, and simulate the audio experience of the final installation where sound sources would be physically distanced, monologues were divided between left and right audio chan-nels and sent to friends for feedback.

Once the edit was locked, sound and synchronized video were output to multiple clips in-stead of three fifteen-minute edits. Using short clips (with durations of 30 to 120 seconds) played in sequence to replicate the timing of the original edit, kept file sizes small and thus more computationally manageable for compositing and playback. These clips were then transferred to *After Effects* to be deformed anamorphically and layered with other imagery. The original edit, I kept solely for reference. The only sound supplementing the sterile voice recordings was the falling of an axe, added to the beginning of all three sequences to audibly measure the inevitable shifts in synchronization between them.[10] The ambient sound and acoustic effects of the Centaur exhibition space layered onto the effects-free recorded sound during the exhibition, live on site.

Working fulltime throughout April and May, I composed final video clips by layering the dis-torted performances with an assortment of imagery following techniques I had developed in

earlier tests. I had originally anticipated making work of a much shorter duration and was concerned about producing such a large amount of footage. I had considered repeating visual sequences and leaving large portions of the work black, but finally pursued other strategies. Making sparser visuals at certain times countered the density of imagery at others, and giving segments with related content similar treatments reinforced structural coherence. Original animation was minimal but used economically. For example, out of a single 3d animation cycle of Susan Kennedy washing the floor, I rendered multiple sequences using different camera angles and shading techniques, and in place of my original intention to animate flies, I used microscopic video of an insect crawling around a mouldy tomato, which I had initially recorded for another project. I also relied heavily on Muybridge's motion studies, which often seemed tailor-made to illustrate witness statements, and repeating them in cycles throughout the work bridged individual clips and sequences. Maps and photographs marked locations relevant to the crime and referenced the viewers' own physical locations in the installation and in the city. Crawling reproductions of original press articles highlighted words spoken to demonstrate their origins. Related and evocative quotations from secondary sources—Herbert Ames on poverty in Griffintown, Julia Kristeva on abjection, and Cesare Lombroso on female criminality—were set in the elegant Cochin font to distinguish them from newspaper text and my own words set in Handwriting script, which provided supplementary information (such as character names, dates, and sources) and commentary.

Absences and rounds: finding image sources and visual motifs

I wanted to create a work that destabilized the ghost of Griffintown legend by contextualizing it within a nineteenth-century culture that sought disciplinary control over bodies and places. Following theories of surveillance metaphorically modeled after the panopticon prison design of judiciary reformer Jeremy Bentham in Michel Foucault's *Discipline and Punish: The Birth of the Prison* (1977), John Tagg has argued that with technological advancements to photography in the final decades of the nineteenth century came a burgeoning of pictorial documentation used as evidentiary tools. With the sensational murder of Mary Gallagher occurring at this time, I had hoped to find crime scene photography, images of the

autopsy, mugshots of defendants, illustrated pamphlets, or sketches of the trial.[11] However I found nothing like the graphic images from the 1892 (Lizzie) Borden murders in New England or the *The Newgate Calendar* from 1824.[12]

Instead, we have aerial perspectives of the crime scene (*Montreal Witness Weekly*, 28 June 1879, 2 July 1879; *The Star*, 28 June 1879, 1 October 1879), mapped with the abstracted contours of Kennedy's and Mear's apartment, and graphics marking the location of the body and additional evidence. The one illustration from the case was published in *The Canadian Illustrated News* (12 July 1879), and is remarkably not an image of the murder, but of the spectators gathered outside the scene of the crime possibly lined up to see the body. In the absence of images, locals sated curiosity with actual sightings (see fig. 7).

Figure 8. Frederick Opper, "The Irish Declaration of Independence that we are all familiar with." *Puck*, 9 May 1883.

With few illustrations and no photographs directly linked to the crime, I searched archives for late nineteenth-century maps and photographs of Griffintown, as well as images of madness (Didi-Huberman) and stereotypes of Irish women (Wells; Opper, see fig. 8.) to layer with footage of the performers and animated loops of chrono-photography by Eadweard Muybridge.[13] I also turned to the original newspapers articles. The graphic use of headlines proved advantageous because they were legible in either reflection or projection, never in

Fig. 7. Scene of the Gallagher Murder, *Canadian Illustrated News*, 12 July 1879.

both. Thus words could demonstrate ways of reading the work by directing viewer attention between and around views.

Circularity had become a principal motif, inspired by the cylinders and by the shapes created by the anamorphic deformations. Distorted figures swelled upward and out, from cylinder base to projection edge, creating encephalitic monsters lying prostrate on the floor. Vertically moving text became shrinking and expanding hoops of black and white, and diagonal camera pans across photographs of the neighbourhood turned rows of buildings into spiralling abstractions. When humans and animals wandered across a pre-distorted space, their re-formed reflections appeared to circle the mirrored tubes. Meanwhile, light would occasionally bounce off the cylinders casting mysterious halos. Circular projections were thus implemented to echo these forms, and rotating imagery and text were deployed to encourage viewer mobility and reduce the privileging of viewing locations suggested by the blind spots that resulted from inevitable shadows. Animation cycles and an overall looping structure expanded patterns of roundness and re-turn to temporal concerns and provided an economic means to fill time and facilitate non-linear viewing. Repetition meant viewers could confidently revisit sequences, and this process of re-view was further encouraged between projected and reflected scenes by synchronously layering anamorphic images with ones that were left undistorted.

Repetition and circularity also referenced nineteenth century definitions of madness. *Monomania* (an affliction of singular preoccupation, predating contemporary obsessive compulsive disorders) and *lipomania* (depression) were identified at trial as evidence of madness in Susan Kennedy. Early psychiatrists evocatively named this combination (suggestive of

manic-depressive illness) "circular insanity" or "madness in a double form" (Shorter, 166). Kennedy's insanity plea however was rejected. At trial, the protest was made, "If you accept the accused is of unsound mind, then Canada will soon outstrip the United States where the insanity dodge is the favourite defense!"[14]

In America, the photographer Eadweard Muybridge had already gotten away with murder. Muybridge shot his wife's lover in 1874, but was acquitted on grounds of "justifiable homicide and insanity caused by mental anguish" (Adam, 9). Was this man, who travelled by train, ferry and carriage to hunt down his victim, madder than Susan Kennedy who went on her hands and knees beside the dismembered body of Mary Gallagher to wash the floor of her blood with lace? Did Muybridge benefit from a lenient American legal system or did being a cuckolded *man* connected to economic and political power save him from the gallows? At the time of his crime, Muybridge was working for railroad magnate and former governor Leland Stanford, searching for technology to build him a faster racehorse. In capturing images of horses in motion, he developed the photographic techniques that would lead to the invention of cinema (Adam, 8).

When Susan Kennedy went to prison for life, Eadweard Muybridge went to Europe to lecture, demonstrating his sequences of images that stopped and reanimated time. While the incarcerated Kennedy sewed uniforms at the Kingston Penitentiary, the freed Muybridge captured thousands more figures in action at the University of Pennsylvania. In the certifiably insane killer's extensive catalogue (created from 1883-1886), we find a scientific endeavour to record and regulate the norms and deviations of bodies in motion. They reveal nineteenth-century constructions of class and gender as much as they illustrate the mechanics of motion and cinema. Women wash, primp and dance, while men perform hard labour and athletic feats. Some are clothed and identified, where others are anonymous nudes. In *Ghosts* they loop and repeat in monomaniacal actions that seem to echo scenes from the murder of Mary Gallagher. Thus Muybridge and Kennedy converge in my re-vision of historic representations of cinema, class, gender, madness, and murder.

Fig. 4. Eadweard Muybridge, Plate 252 – Kneeling on right knee and scrubbing the floor. *Animal Locomotion*, 1872-1885.

V. Manufacturing Views: Technical Aspects

As a research/creation project, experimentation through production was critical to the development of my anamorphic cinema. I made prototypes to develop the techniques used to make the installation, and refine them into methods that were intuitive, speedy and versatile. Using different scales, arrangements and source imagery, I discovered unexpected advantages and challenges that became crucial to the configuration of my final work. Here I explore some of the strategies that I developed in making the anamorphic cinema.

The anamorphic moving image is very rare. I could find neither computer applications that would automatically generate anamorphic animation, nor the cylindrical or conical mirrors required to complete the illusion. Instead I invented my own methods for making, testing and refining this unusual form of cinema, and over the past few years generated digital imaging techniques and fashioned an assortment of physical displays. Starting from February 2009, I made and displayed three distinct prototypes: 1) a pilot project of printed and animated imagery to establish proof of concept; 2) *Kappa Garden*, a large, animated projection made for exhibition in a workshop on animated installation; and 3) *Tabletop Anamorphs,* a small, portable triptych of anamorphic video art. Using diverse image sources and shifting scales with each trial, these works formed essential process-based research. Henceforth, I will briefly explain my explorations of digital and material technologies.

Anamorphosis is a perspectival technique that skews a normal, frontally viewed image by geometric transformation. An artist traditionally achieved this by placing a grid on an original undistorted picture and manually transposing its contents onto a corresponding deformed grid. With computers however, equivalent translations of the pixels that form digital images can be mathematically programmed to automate this process over a series of files or

movie frames.[15] Though I use computation, my approach has been more empiric than arith-metic. I apply the Renaissance method to computational processes by using existing graphics programs to visually modify deformations into reusable filters that mimic gridded anamor-phic guides found in old diagrammatic perspectival treatises.

I used a 3D animation software called *Maya* to make my anamorphic distortions, before grad-uating towards more refined procedures. In Maya, it was relatively simple to coarsely distort animated sequences using combinations of *lattice* and *bend deformers* for the pilot project and *Kappa Garden*. This process required that image processing be done in multiple stages, which proved a great disadvantage. Original animation had to be saved as image sequences to be applied as an animated surface texture on distorted geometry before re-rendering. Moving anamorphic effects could not be previewed prior to rendering, making a slow and limiting process that required a second program (*After Effects*) to edit and convert the new sequences into playable movie formats. I addressed this challenge during the making of my subsequent prototype *Tabletop Anamorphs,* which used live action video instead of anima-tion.[16] For this project, three video sequences—close ups of eye blinks, profiles of tongues wagging, and mid-shots featuring clapping hands—were edited in *Final Cut Pro* and im-ported into *After Effects* for image distortion. Using a series of warp filters to offset a final cylindrical wrap, (which was rotated and imaged with a wide angle of view to flatten and expose its interior) I was able to reproduce and perfect the cylindrical anamorphic effect. Moreover, I could preview animation before rendering, and layer the distorted imagery di-rectly with other sequences without switching to another program and making an extra scene file. This move from 3D animation to 2D compositing software improved workflow by reducing excess renders, which lessened digital storage needs, unnecessary labour, com-puter processing, and render times.

The production of physical prototypes complemented the development of digital imaging techniques. This required the creation of my own volumetric mirrors, since pre-made ones seemed impossible to find. I abandoned my initial interest in the intriguing effects of conical anamorphosis being unable to economically make seamless mirrored cones, and settled for simpler cylindrical mirrors. This type of anamorphosis was best seen with images placed

laterally on floors or tables with cylinders placed on top of them. To accommodate such configurations for the most part required ceiling mounted projectors and flat mirrors to redirect the images because most projectors cannot be safely rotated 90 degrees. Furthermore, with projectors as light sources, the anamorphic cylinders inevitably cast dark shadows partially obscuring the imagery they were meant to reflect.

I might have avoided all these material difficulties if I had stuck with thought experiments or remained in the virtual world, but there is no substitute for physical engagement.[17] While it may avert the concrete obstacles mentioned earlier, simulated imagery misses the often-surprising rewards of corporeal encounter. An image cannot reproduce the depth of a material reflection just as orthodox perspective, unless stereoscopic, will appear to sit on the surface. Mirrors extend space because like anamorphic images, what they display will shift along with their observers. Anamorphic mirrors are thus doubly illusive, for they optically re-form images in their reflections and they situate them within an interior field rather than re-presenting them flat on the surface. (Planar anamorphosis situates its re-formed imagery in front of the picture plane.) Impossible to document, these effects must be experienced live. Confusing the location of the original projection is another illusion of the two-image catoptric system. The inverted misapprehension that imagery on the floor is reflected off the volumetric mirrors enhances optical mystery.

Kappa Garden is an installation made for public exhibition that further informed my anamorphic research. It was created during the 2009 *Boundary Crossing* summer program at the Pacific Northwest College of Art in Portland, Oregon with the guidance of program director Rose Bond and animation filmmaker/professor Paul Vester (Experimental Animation, CalArts). *Kappa Garden* followed the workshop's theme 'Little Gods' and features animated amphibious Japanese mythical tricksters (*kappa*) frolicking in a dry pond. Inspired by traditional Zen gardens, including one found at Portland's Japanese Botanical Gardens, I projected a single movie sequence of swimmers from the school lobby's 25-foot ceiling onto a floor of raked sand, and reflected it in a trio of water-filled mirrored cylinders of varying sizes. This was exhibited twice more in locations with similarly high ceilings. Adding to the simulation

of water by sand, animating waves of concentric circles fashioned ripple effects. I was delighted to watch as children crouched at the projection edge, attempting to 'catch' the kappa as the floor beneath them dissolved into an actual pond.

Displays of *Kappa Garden* garnered praise but also exposed unanticipated challenges. For the forty-second loop was complex enough to mesmerize viewers but rather than encouraging them to move around as I had intended, onlookers tended to stand fixed in one spot and unless directed, often seemed unaware of the anamorphic illusions. Furthermore there were the aforementioned technical issues related to the production of anamorphic mirrors (costly until I sourced inexpensive building materials), the inevitable shadows that they threw, and the challenge of finding locations to install projectors from high enough heights. My subsequent prototype, *Tabletop Anamorphs,* sought to remedy these problems by 1) placing sequences and anamorphic cylinders far apart to enforce viewer mobility; 2) imaging actors instead of animations so viewers would not mistake deformation for artistic interpretion; 3) using laterally-placed monitors to eliminate shadows and other challenges posed by projection; and 4) working with stainless steel baking tubes instead of making my own mirrored cylinders.

I worked out many issues related to both digital production and exhibition through the creation of *Tabletop Anamorphs*, but its scale produced a new challenge. Although viewers were more apt to walk between the distanced monitors, the relatively small assemblies seemed to instil in them a desire to handle and manipulate the work. Rather than reposition themselves to change angles of view, they wanted to directly adjust the images on screen. The small tabletop installation seemed accordingly better suited for a project involving real-time haptic interaction rather than the one I had proposed, which featured a mobilized gaze but no hands-on viewer control. Thus I decided to retain the configuration of multiple screens but resolved to work through the challenges posed by larger works, asking audiences to adopt positions of mobile habitation rather than stances of control.

Still, the revelation of a monitor removed from its stand and placed face up on a table created a method for preview that facilitated production. By connecting this configuration directly to a graphics workstation, I was able to inspect the effects of anamorphic motion as I made

it. This reduced the need for regular test installations and sped the adaptation and advancement of imaging and animation techniques. Compositions changed radically when I paired animated sequences with their own reflections, and the tendency of movement towards circularity altered perceptions of speed.

To exhibit *Ghosts*, I configured an assembly that was simple, fast, economic and versatile. Concordia University had recently acquired Sanyo ultra-short throw projectors, and using them made for easy set-up. Having made four minutes of test animation for *Ghosts* in Fall 2010 prior to starting actual production, I borrowed a projector for a full-size demonstration. I placed one on a table of standard height (about 35 inches off the ground), aimed it at the floor, and connected to it a laptop that played a series of 30-120 second clips through iTunes software. This produced an uninterrupted loop of moving images with an image size of approximately 160 x 130 inches. For the cylinder, I applied mirrored paper to a 12-inch diameter cardboard construction tube, which I cut down to 27 inches, the height of the affixed paper. I hid the vertical seam of the reflective wrapping in the inevitable shadow cast by the projector. Taking note of these measurements, I refashioned a miniature tube for a proportional tabletop production assembly, and I adapted my digital files to produce deformations that would re-form to their original state when the viewing angle caused their reflections to fill to the full height of the cylindrical mirror. I completed the installation by capping the full-size exhibition tubes with custom-made black wooden disks, and stacking inexpensive pre-made tables to hold the borrowed equipment—projectors, Macmini computers, and speakers with internal amplifiers.[18]

VI. Final Regards: An Exhibition Analysis and Conclusion

Watching and hearing about how people experienced the project was informative and rewarding, complementing the process of research and production. This summer (2011), numerous audiences experienced *Ghosts in the Machine*. Its five-day exhibition at the Centaur space in Griffintown at the beginning of June, drew approximately three hundred visitors with diverse interests and backgrounds. Curator Shauna Janssen organized showings by reservations and extended invitations to our friends from cinema, theatre, arts and academia, as well as those interested in local heritage and the growing culture of southwest Montreal. A vernissage held on Wednesday, June 1 was followed the next evening by the annual Directors Circle event for supporters of the Centaur Theatre, and on Friday, Héritage Montréal hosted their own members. That weekend, Janssen scheduled hourly visits paired with guided tours of the building by Héritage Montréal volunteer, Jean-Yves Bourdages. The exhibition was remounted a month later, at the FOFA Gallery located in the lobby of the Concordia University EV Building in downtown Montreal. *Inside Griffintown* (also curated by Janssen) placed *Ghosts* alongside the graduating works of Alice Jarry and Marie-Andrée Pellerin for the Canadian Association for Irish Studies conference, and was open to the public throughout the four-day event.

I was happy to make this second installation in a situation more convenient to friends and colleagues, but it increased my awareness of the site-specific nature of *Ghosts in the Machine.* Though it fit inside the FOFA space, the smaller room size restricted viewer movement, and the matte concrete floors coupled with light leaks from another artwork weakened the impact and intensity of the projected imagery. More significantly, situating the exhibition in the downtown glass high-rise placed nineteenth-century Griffintown far from sight/site. What a difference from the old police station exhibit that obliged visitors to travel past the new condominiums of Griffintown, into the old building and up its narrow staircase, fragrant with the smell of old wood. If arrival is part of the cinematic experience, in this expanded version, audience members could transport themselves back through time before entering the exhibition.

Exhibiting prototypes and regularly soliciting informal feedback on in-progress work had formed an essential element of production, but ultimately I could not anticipate the final outcome. I was concerned that *Ghosts in the Machine* would be merely decorative, or worse yet confusing, pedantic or gratuitous. Would an excess of layers, overlaps and obscure allusions subsume all storytelling? I would characterize the initial reactions that I have witnessed as delight, astonishment and confusion. Some viewers appear uncertain about properly engaging with the work, and the technology intrigues or baffles others. Given the rarity of anamorphic moving images, this is unsurprising. However, most people adapt quickly to the anamorphic cinema. Some sit or stand for long durations before changing positions whereas others chase projections in an attempt to follow the sequence of monologues. At Griffintown, there was little conversation in the exhibition room. Viewers (except for some francophones who struggled with the English-only text) tended to outstay the fifteen-minute loop and many remained with the project for several cycles. Concentration was intense.

I especially enjoyed learning what visitors carried away from the exhibition—what impressions were made, what details they recalled. For example, there were filmmakers familiar with Muybridge, who told me they were unaware of his murder case, and others familiar with anamorphosis had never considered its use as cinema. One woman told me the work reminded her of video artist Pipilotti Rist and a few people thought the installation might do well in a museum. Yet some seemed more struck by content than form. I overheard a man marvel that a single block on Young Street had previously housed more than five hundred residents, while Lombroso's views on female criminality outraged at least woman. One couple surprised me, demanding to know what had happened to the axe found at the crime scene, presumably they were curious about what modern forensics might reveal. I often asked visitors if they know who killed Mary Gallagher after seeing my exhibition. Since none of them are certain of Kennedy's guilt—they debate motive, question evidence, and wonder about Flanagan—I would like to think that I am making some intervention in the re-vision of a local legend.

In perhaps the most heartening moment of the exhibitions, I found a half dozen children running around the floor projections to see what each cylinder revealed. I doubt they had any

notions of expanded cinema, concepts of truth in representation, multi-perspectival narratives, ontological debates between Cartesians and phenomenologists, or theories of nineteenth-century spectatorship and discipline. I don't even know if they knew that the work was about a gruesome murder. Yet in watching them have so much fun while treating the moving imagery with such happy irreverence, all that seemed immaterial. Amidst the play and re-play, the apparitions of the anamorphic cinema were hard at work, creating an audience unfettered by the shackles of history and its representations. Having released both viewers and images from the hallucinatory cave of the cinematic apparatus to emplaced and embodied sites and sights, my research-creation project had arrived at an illuminating resolution of curious perspectives. It re-formed and de-normed pictures of the criminal, the feminine, the senseless and the abject in a *memento mori* of a wandering spectre made for the wandering spectator.

Endnotes

---

[1] "Ghost in the machine" was coined by philosopher Gilbert Rylee in his critique of Cartesian ontology, *The Concept of the Mind* (1949). I have not included Rylee in my bibliography although in the absence of better title ideas, his much-used phrase seemed too fitting not to use.

[2] Baudry posits that the ideological effects of the cinematic apparatus rests on 1) a monocular vision based on the dimensions and centrality of Western easel painting; 2) the concealment of a process that brings continuity out of difference (movement through montage); and 3) the creation of a transcendental subject that identifies with the camera ("Ideological Effects").

[3] The effect of *Morphovision* inverts the two dimensional operations of the Anorthoscope, a device that Iwai discovered during development of *Morphovision* (NHK). Described by Joseph Plateau in his doctoral thesis of 1829 on the persistence of vision, and invented prior to his Phenakistascope (1832), the handheld Anorthoscope had a slit viewfinder and rotating disc with a distorted image that appeared to re-form when spun ("Joseph Plateau"). It can thus be considered the missing link between anamorphosis and animation.

[4] Art and science historian David Topper (1998) argues against Latour's use of anamorphosis as a metaphor for incompatible worldviews. He claims that "the phenomenon of visual compensation" and "surface awareness" allow a double vision of re-formed anamorphic and undistorted views in Holbein's work.

[5] Martin Jay ("Scopic Regimes" 7) adopts Normam Bryson's explanation that perspective reproduces an eternal and hegemonic Gaze as opposed to the Glance, which is closer to the actual saccadic condition of human sight. The (small 'g') gaze cited here references the Lacanian "*petit 'a' "* and the misrecognition of plenitude that through desire, also bears periodic glances.

[6] *Lieux de mémoire* (sites of memory), a term coined by historian Pierre Nora (1989), denotes the auratic archives, rituals and places that are assigned to hold memory when a break with the past causes embodied, felt and habitual memory to be lost.

[7] I met Kiely at the *Ghosts* vernissage and she explained how she had asked the older members of her family whether they had ever heard of Mary Gallagher. Though her aunts spent their entire lives in Griffintown, and the family business remained at the corner of Murray and William Streets long into the twentieth century, the story of Gallagher's death had never been recounted among her surviving relatives. Kiely posits that Victorian propriety and the proximity of the family to the horrible event had kept them from discussing the murder.

[8] See John Tagg for discussions of the meaningful difference between three-quarter views common to portraiture versus frontal views used for practices such as medical and police photography.

[9] One viewer came to me with theories about how each station communicated specific types of information. I was thrilled to hear that unintended connections might be made.

[10] To synchronize three distinct projections would have required a more complex installation with additional hardware and software that would either split a large resolution movie file across multiple screens, or control and synchronize internal computer clocks to keep separate processes from drifting out of sync.

[11] Kingston Penitentiary began photographing inmates in the 1880s but no photographs taken before 1911 remain (St. Onge). Hustak's book has an illustration that is supposedly of Mary Gallagher but the author explained to me (2 November 2010) that it actually depicts an unknown woman added by the publishers.

[12] An extension collection of documents from the Borden trial can be found at the *Lizzie Andrew Borden Virtual Museum and Library*, assembled by Stefani Koorey. The *Newgate Calendar* and numerous works on crime from the 18th and 19th centuries are available at the "Villainy Detected!" website hosted by the Lehigh University Digital Library.

[13] Because all pre-made images reproduced in *Ghosts in the Machine* were from the nineteenth century, they are within the public domain.

[14] Michel Foucault ("About the Concept") explains that the nineteenth century witnessed power struggles between psychiatry and the legal profession, with the introduction of "monomania" which unlike previous definitions of insanity was difficult to detect. As jurisprudence shifted from punishing crimes to assessing criminals, the incursion by new expert disciplines was successfully resisted by the turn of the century. Likewise, Kennedy's insanity plea was rejected because the court doubted her doctor's assessment. Still, Kennedy's jury recommended mercy and the public believing her insane was "praying for a commutation of the sentence" (*The Montreal Witness*, 8 October 1879), which the federal government eventually ordered. Foucault explains that the concept of the dangerous individual returned through the civil courts under the concepts of liability and risk. Thus twentieth century legal systems no longer used psychiatry to assess criminal responsibility but rather to determine potential danger posed by an offender.

[15] See Philip Hickens (1992) for information about the mathematical formulae required to make anamorphic grids and distortions.

[16] Source footage for Tabletop Anamorphs was filmed in collaboration with Jason Lee for an experimental film that we have yet to complete.

[17] Raytracing, the 3D rendering technique that imitates reflective and refractive optical effects, can simulate the effects of mirror anamorphosis.

[18] If I had a larger budget and longer exhibition period, I would have preferred to place projectors, computers and speakers out of sight for a cleaner-looking installation that allowed visitors 360 degree access around the cylinders. Despite the convenience of the Sanyo ultra-short throws, I would rather projectors that could be placed directly over the cylinders rather than in front of them, to minimize shadows and maximize image area.

Bibliography

Texts Cited

Adam, Hans Christian (Ed). Eadweard Muybridge: The Human and Animal Locomotion Photographs. Cologne: Taschen, 2010. Print.

Baltrušaitis, Jurgis. *Anamorphic Art*. Cambridge: Chadwyck-Healy, 1977. Print.

Barlow, John Matthews. 'The House of the Irish': Irishness, History and Memory in Griffintown, Montreal, 1868-2009. Diss. Concordia University. 2009. Print

Baudry, Jean-Louis. "The Apparatus: Metapsychological Approaches to the Impression of Reality in the Cinema." *Narrative, Apparatus, Ideology.* Ed. Philip Rosen. Columbia: Columbia University Press, 1986. 299-327. Print.

-----. "Ideological Effects of the Basic Cinematographic Apparatus." *Narrative, Apparatus, Ideology.* Ed. Philip Rosen. Columbia: Columbia University Press, 1986. 286-298. Print.

Beckman, Karen. "Impossible Spaces and Philosophical Toys: An Interview with Zoe Beloff." *Grey Room* 22 (2006): 68-85. *MIT Press Journals.* Web. 7 May 2011.

Bond, Rose. "Poetics and public space: an investigation into animated installation." *Animation Practice, Process and Production*, 1.1 (2011): 65-76. *Intellect.* Web 7 May 2011.

Brewster, David. Letters on natural magic, addressed to Sir Walter Scott. (New Edition) 1868. The Internet Archive. Web. 14 Aug. 2010.

-----. *A Treatise on Optics.* (New Edition). 1845. *The Internet Archive.* Web. 14 Aug. 2010.

Broadfoot, Keith. "Perspective Yet Again: Damisch with Lacan." *Oxford Art Journal* 25.1 (2002): 71-94. *Oxford Journals.* Web. 9 Feb. 2009.

Burns, Patricia. The Shamrock & the Shield: An Oral History of the Irish in Montreal. Montreal: Véhicule Press, 1998. Print.

Crary, Jonathan. Techniques of the Observer: On Vision and Modernity in the 19th Century (October Books). London: MIT Press, 1992. Print.

Cultural Corridor, n.p. n.d., Web. 10 July 2011 <http://www.griffintown.org/corridor-culturel/index.htm>

Didi-Huberman, Georges. Invention of Hysteria: Charcot and the Photographic Iconography of the Salpêtrière. Cambridge: MIT Press, 2003. Print.

Driedger, Sharon Doyle. *An Irish Heart: How a small immigrant community shaped Canada*. Toronto: Harper Collins, 2010. Print.

Foucault, Michel. "About the Concept of the 'Dangerous Individual' in 19th-Century Legal Psychiatry." *Law and Psychiatry: Proceedings of an International Symposium Held at the Clarke Institute of Psychiatry, Toronto, Canada.* February 1977." Ed. David N Weisstub. Toronto: Pergamon. 1978. 1-29. Print.

-----. *Discipline and Punish: The Birth of a Prison*. New York: Vintage Books, 1995. Print.

Friedberg, Anne. *The Virtual Window: From Alberti to Microsoft*. London: MIT Press, 2009. Print.

Haraway, Donna J.. "Situated Knowledges: The Science Question, Feminism and the Privilege of Partial Perspective." *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1991. 183-201. Print.

Harries, Karsten. "Descartes and the Labyrinth of the World ." *International Journal of Philosophical Studies* 6.3 (1998): 307-330. *Informaworld*. Web. 2 Sept. 2009.

Hickin, Philip. "Anamorphosis." *The Mathematical Gazette* 76.476 (1992): 208-221. *JSTOR*. Web. 12 Aug. 2010.

Hustak, Alan. The Ghost of Griffintown. The True Story of the Murder of Mary Gallagher. Montreal: Price Patterson Ltd, 2005. Print.

Janssen, Shauna, curator. *Urban Occupations Urbaines*. Exhibition and performance series. Montreal. 2010-2011. <http://www.urbanoccupationsurbaines.org/>.

Jay, Martin. "The Noblest of Senses: Vision from Plato to Descartes" *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought (Centennial Book)*. Berkeley: University of California Press, 1994. 21-82. Print.

-----. "Scopic Regimes of Modernity." *Vision and Visuality*. Ed. Hal Foster. Seattle Bay Press. 1988. 3-23. Print.

Jones, Ann. *Women Who Kill*. New York: Holt, Rinehart, and Winston. 1980. Print.

Jones, Jennifer. *Medea's Daughters: Forming and Performing the Woman Who Kills*. Columbus: Ohio State University Press, 2003. Print.

"Joseph Plateau." *Museum for the History of Sciences of Ghent University*. N.p., n.d. Web. 27 Aug. 2010. <http://mhsgent.ugent.be/eng-plat1.html>.

Koorey, Stefani. *Lizzie Andrew Borden Virtual Museum and Library*. PearTree Press. 2003-2008. Web. 10 Aug. 2010. <http://www.lizzieandrewborden.com>.

Latour, Bruno. " « Thou shall not take the Lord's name in vain » —being a sort of sermon on the hesitations of religious speech." *Res* 39 (2001): 215-234. *Bruno Latour: articles*. Web. 16 Aug. 2010.

-----. "Drawing Things Together." Eds. Michael Lynch and Steve Woolgar. *Representation in Scientific Practice.* Cambridge: MIT Press, 1990. 19-68. Print.

Leeman, Fred. Hidden Images: Games of Perception, Anamorphic Art, Illusion (from the Renaissance to the Present). New York: Harry N. Abrams, Inc., 1976. Print.

Marchessault, Janine and Susan Lord. Introduction. *Fluid Screens, Expanded Cinema.* Toronto: University of Toronto Press, 2007. 3-25.Print.

Massey, Lyle. Picturing Space, Displacing Bodies: Anamorphosis in Early Modern Theories of Perspective. University Park: Pennsylvania State University Press, 2007. Print.

NHK. *Morphovision*. n.d. Web. 15 July 2011.

Nead, Lynda. Myths of Sexuality: Representations of Women in Victorian Britain. Malden: Blackwell Pub, 1990. Print.

Niceron, François. La Perspective curieuse ou magie artificielle des effets merveilleux de l'optique, la catotrique…le dioptrique. Paris: François Langlois dit Chartres 1651. Gallica Bibliothèque Numérique. Web. 10 Aug 2010.

Nora, Pierre. "Between Memory and History: Les Lieux de Mémoire." *Representations* 26 (1989): 7-24. Print.

Rafter, Nicole Hahn and Mary Gibson, trans. *Criminal Woman, the Prostitute and the Normal Woman.* By Cesare Lomboso and Gugliemo Ferrero. London: Duke University Press. 2004. Print.

Shorter, Edward. *A Historical Dictionary of Psychiatry.* New York: Oxford University Press. 2005. Print.

St. Onge, Dave (curator, Canada's Penitentiary Museum). "Re: archives?" Message to author. 3 November 2010. E-mail.

Tagg, John. *The Burden of Representation: Essays on Photographies and Histories*. Minneapolis: University of Minnesota Press, 1993. Print.

Topper, David. "On Anamorphosis: Setting Some Things Straight." *Leonardo* 33.2 (2000): 115-124. *JSTOR*. Web. 9 Feb. 2009.

Villainy Detected! Crime and Consequences in Britain and North America in the Eighteenth and Nineteenth Centuries. Lehigh University Digital Library. n.d. Web.1 November 2011. <http://digital.lib.lehigh.edu/crime/about/>

Media Works Cited

Beloff, Zoe. *The Ideoplastic Materializations of Eva C.* Four channel stereoscopic, surround sound DVD Installation. 2004.

-----. *The Influencing Machine of Miss Natalija A.* Interactive Video Installation. 2001.

Bond, Rose. *Broadsided!* Site-specific animated installation, 2010 Exeter Castle, UK.

-----. *Gates of Light.* Site-specific animated installation, 2004. Museum at Eldridge Street, New York.

Burman, Richard, dir. Ghosts of Griffintown: Stories of an Irish Neighbourhood. Burman Productions. 2003. DVD.

Cardiff, Janet. *The Missing Voice: Case Study B*. Audio walk of Whitechapel Library to Liverpool Station, London UK. 1999.

Cardiff, Janet and George Bures Miller, *The Forty Part Motet*. Audio installation. 2001.

Dyer, Eric. *Bellows March*. Film and installation, 2009.

-----. *Copenhage Cycles*. Film and installation, 2006.

Holbein, Hans (the Younger). *The Ambassadors.* 1533. Oil on oak. National Gallery, London.

Iwai, Toshio. *Morphovision.* Interactive installation. Prod. NHK Science and Technical Research Laboratories, 2005.

Kentridge. *What Will Come (Has Already Come),* Animation Installation, 2007.

Opper, Frederick. "The Irish Declaration of Independence That We Are All Familiar With." Magazine cover illustration. *Puck*. 9 May 1883.

Wells, Samuel. "Contrasting Faces." Illustration. New *physiognomy*: or, Signs of character as manifested through temperament and external forms, and especially in "the human face divine". New York: Fowler and Wells, 1867. Print.

Newpapers Cited

Canadian Illustrated News. "The Gallagher Murder." Illustration and text. 12 July 1879. 19-20. Print. McGill Rare Books and Special Collections.

The Gazette [Montreal]. "An Atrocious Murder." 28 June 1879. 2. Microfilm.

-----. "A Female Fiend." 30 June 1879. 2. Microfilm.

-----. "The Griffintown Tragedy." 1 July 1879. 2. Microfilm.

-----. "The Griffintown Horror." 3 July 1879. 2. Microfilm.

-----. "A Fatal Visit." 5 July 1879. 2. Microfilm.

-----. "A Murderous Trio." 8 July 1879. 2. Microfilm.

-----. "The Griffintown Murder." 1 October 1879. 4. Microfilm.

-----. "The Griffintown Butchery–Verdict." 1 October 1879. 4. Microfilm.

-----. "The Trial of Michael Flanagan." 4 October 1879. 4. Microfilm.

-----. "Sentenced to Death." 6 October 1879. 4. Microfilm.

-----. "Another Fatality: A Strange Coincidence." 6 December 1879. 4. Microfilm.

The Globe [Toronto]. "A Brutal Murder." 30 June 1879. *Proquest.* Web. 15 June 2010.

The Montreal Daily Star. "Griffintown Claims Ghost of Murdered Woman Has Returned to Look for Head." 27 October 1879. 3. Microfilm.

The Montreal Herald. " Horrible Murder." 6 June 1879. 3. Microfilm.

-----. "The Griffintown Murder. The Inquest—Story of a Wicked Life." 29 June 1879. 3. Microfilm.

-----. "The Griffintown Murder. Strange Evidence Strangely Told." 1 July 1879. 2. Microfilm.

-----. "The Griffintown Murder. More Strange Witnesses." 3 July 1879. 4. Microfilm.

-----. "The Griffintown Murder. The Plot Thickens." 5 July 1879. 4. Microfilm.

-----. "The Griffintown Murder. Concluding Evidence." 8 July 1879. 4. Microfilm.

-----. "Court of the Queen's Bench. The Griffintown Murder." Series. 1, 2, 4 October 1879. Microfilm.

-----. "Singular Coincidence." 6 December 1879. 4. Microfilm.

-----. "Funeral." 8 December 1879. 4. Microfilm.

Montreal Weekly Witness. "Murdered with an Axe." 28 June. 1879. 1. Bibliotheque et Archives nationales du Québec ressources en ligne. Web. 2 Dec 2010.

-----. "Murdered with an Axe." 2 July. 1879. 1. *BAnQ.* Web. Web. 2 Dec 2010.

-----."The Griffintown Murder Trial." 2 July. 1879. 1. *BAnQ.* Web. Web. 2 Dec 2010.

The Star [Montreal]. "Murdered and Beheaded." 28 June 1879.

-----. "The Connolly Murder." 30 June 1879. 2. Microfilm.

-----. "The Griffintown Butchery." Series. 2, 3, 5, 8 July, 1879. Microfilm.

-----. "Court of the Queen's Bench." Series. 1, 2, 4 October 1879. Microfilm.

-----. "City News: Flanagan's Body." 6 December 1879. 2. Microfilm.

Appendix A: *Ghosts in the Machine* Credits

Cast (in alphabetical order)

Deena Aziz	*Newspaper reader*
Diana Fajrajsl	*Mary McCarthy*
Dean Fleming	*Jacob Mears* *Detective Andrew Cullen* *Medical Examiner J. J. E. Guerin*
Alexandria Haber	*Susan Kennedy*
Tristan D. Lalla	*Michael Flanagan* *Constable Neil Mckinnon*
Julie Tamiko Manning	*Helen Burke* *Catherine Golden* *Final newspaper reader*

Crew

Shauna Janssen	Curating & Production Management
Micheline Chevrier	Voice Directing
Jason Lee	Cinematography
Lachlan Fletcher	Sound Recording

Equipment and location suppliers

Centaur Theatre
Concordia University Centre for Digital Arts (CDA)
Concordia University Center for Ethnographic Research & Exhibition in the Aftermath of Violence (CEREV)
Concordia University Department of Communication Studies
Concordia University Faculty of Fine Arts Core Technical Centres
Concordia University FOFA Gallery
Concordia University Lab 6.5
Hexagram Concordia

Héritage Montréal guided visits

Anna Nixon	Manager
Jean-Yves Bourdages	Guide

Appendix B: *Ghosts In the Machine* Image & Text Sources

Newspapers: *Canadian Illustrated News, The Gazette, The Globe, Montreal Daily Star, The Montreal Herald, The Montreal Weekly Witness, The Star*

Ames, Herbert Brown. *The City Below the Hill*, Toronto: Univ. of Toronto Press, 1972. Print.

City of Montreal. Ink on Paper.1888. Lithograph. McCord Museum.

Dawson, Samuel Edward *Map of the city of Montreal: compiled from the latest surveys.* Map. 1888. Print. McGill University Rare Books and Special Collections.

Charcot, Jean-Martin. *L'iconographie photographique de la Salpêtrière*. Photographs. 1877-1880.

Goad, Charles E. Atlas of the city of Montreal. Map. Montreal: Goad. 1881. Bibliothèques et archives nationales du Québec. Web. 12 November 2010.

Hopkins, H.W, Atlas of the city and island of Montreal, including the counties of Jacques Cartier and Hochelaga. Map. Quebec: Provincial Surveying and Pub. Co., 1879. Bibliothèques et archives nationales du Québec. Web. 12 November 2010.

Kristeva, Julia. *Powers of Horror: An Essay on Abjection*. Columbia: Columbia University Press, 1982. Print.

Lombroso, Cesare. *The female offender.* Authorized ed. New York: Appleton, 1900. Print.

Maisons photographiés pour M. Meredith, *Rue Barré, Griffintown.* Photographs. Montreal: Wm. Notman & Son, 1903. McCord Museum.

Montreal from Street Railway Power House chimney. Photographs. Montreal: Wm. Notman & Son, 1896. McCord Museum.

Muybridge, Eadweard, *Animal Locomotion.* Photographs. 1872-1885.

Opper, Frederick. "The Irish Declaration of Independence That We Are All Familiar With." Magazine cover illustration. *Puck*. 9 May 1883. Web.

Walker, John Henry. *Pledge of St. Ann's Total Abstinence Society*. Ink on paper. 1850-1885. Print. McCord Museum.

Walling, Henry Francis, *City of Montreal and Suburbs in Tackabury's atlas of the Dominion of Canada.* Map. Montreal : George N. Tackabury, 1875, c1874. 136-137. Print. McGill University Rare Books and Special Collections.

Wells, Samuel. "Contrasting Faces." Illustration. New *physiognomy*: or, Signs of character as manifested through temperament and external forms, and especially in "the human face divine". New York: Fowler and Wells, 1867. Print.

Appendix C: *Ghosts in the Machine* Transcript

Channel One

1-2a   00:00:00 – 1:23:07
image: man wielding axe, dog (Muybridge, anamorphic)
audio: axe falls

2b   01:23:08 – 01:59:23
audio: Susan Kennedy, Part 2 (testified 30 June 1879)
         I am not very easily frightened but I was that time, more than ever in my life; I re-
         member tucking up my clothes and by that means, the blood got on my underclothes;
         I think I put the apron on after; the blood got on it while I was kneeling down; I did
         not call out or give the alarm; I am sorry I did not but I was not able...

image: Alexandria Haber (frontal portrait, anamorphic), Montreal map (Hopkins, straight),
         washing the floor (Muybridge, anamorphic), newspaper scan (straight)

text: Coroner Joseph Jones and his sixteen-man jury questioned Kennedy at the Inquest
         the following Monday.
         Inquest testimonies were immediately recounted in the press, months before the
         October trials.
         [scan] from The Gazette, July 2, 1879

2c   02:00:00 – 02:31:02
image: man running (Muybridge, anamorphic); silent

3   02:31:03 – 03:40:16
audio: press commentary (*Gazette 30* June 1879)
         Mear's* wife, a tall, strapping Irish woman, evidently possessing great physical
         power, led an exceedingly irregular life and when under the influence of liquor was
         exceedingly violent...The husband it would appear openly consented to the traffic in
         his wife's virtue, and where such a state of morality reigns unchecked it cannot be ex-
         pected that there will be due regard for human life...The motive for committing the
         deed was jealousy. Mears, in her stature, would tower over her like a giant. The de-
         ceased however, it would appear had a "solid" friend from whom Mears obtained
         some money. This gave rise to an altercation between the women and which, no
         doubt, created a jealous animosity in the breast of Mrs. Mears that induced her to
         summarily rid herself of her rival. [*Mears was pronounced as "Meyers."]

image: insect (straight), "Contrasting Faces" (Wells, anamorphic), "Irish Declaration"
        (Puck, anamorphic), pigs (Muybridge, straight)

text: Was Susan Kennedy a monster?
        She was described as large, loud and unladylike.
        The brute was a common trope for Irish working class women.
        "Contrasting Faces" from New Physiognomy ~ Samuel R. Wells, 1867
        cover art from Puck magazine, 1883

4   03:40:17 – 04:59:23
audio: Dr. James John Edmund Guerin (testified 28 June 1879)
        *Have inspected the body of deceased (Mary Gallagher), and found her head and one
        arm severed from the body; on examining the head found three scalp wounds as if
        caused by an axe; those wounds reach the bone, each slightly splintering the skull; an
        axe of the kind now produced would cause such wounds; there are few grey hairs at-
        tached to the blade corresponding with the hair of the deceased; there are two
        smaller wounds on the forehead; the bridge of the nose is smashed as if with a ham-
        mer or back of the axe; the left side of the face was also examined, and found a wound
        extending from under the eye to the ear; the right hand was severed from the arm
        near the wrist-joint; there is one cut over the right shoulder and above the pubes to
        the right is an incised wound as if caused with a sharp instrument, the right thigh is
        somewhat discoloured, a bruise; the probabilities are that the wounds in the head
        rendered deceased insensible, and that the head was severed from the body either af-
        ter death or while deceased was insensible; the deceased must have been some hours
        dead when I examined her.*

image: Dean Fleming (hand, anamorphic), Montreal map (Dawson, straight), crime scene
        map (Star, straight)

text: Dr. James Joseph Edmund examined the body of Mary Gallagher
        the scene of the crime (the Star, 28 June 1879)

5   05:00:00 – 06:23:07
audio: Catherine Golden (testified 4 July 1879)
        *... I was sitting at the hall door, sewing, the whole day; I saw Mrs. Mears talking out of
        the front window, about ten o'clock... she went by the name of Mrs. Jacobs...she ap-
        peared to be in liquor,..the children asked, "Susan, ain't you drunk?" she replied, "No, I
        am not drunk, no more than you are;" I saw another woman there, I know now was
        Mary Gallagher...pulling Mrs. Jacob's dress, trying to pull her in from the window , this
        was about 11 o'clock. Mrs. Mears did not leave the window but I heard her say, "If you
        don't go away and leave me alone, I will knock your brains out with an axe"...I went
        upstairs to get dinner, and came down again about half past twelve; I saw Mrs. Mears
        again at the window; I saw her backwards and forwards to the window until after
        three o'clock; I saw her again a little while before 6... she was talking to the children*

on the street; and when gentlemen would come by she would motion to them to come in.

image: Julie Tamiko Manning (closeup of eyes, anamorphic); Montreal map (Goad, straight); newspaper scan (5 July 1879 *Star*, straight)

text: Catherine Golden and her husband James Walsh lived across the street from Kennedy and Mears.

6a   **06:23:08 – 7:17:11**
audio: Constable Neil McKinnon (testified 7 July 1879)
I went upstairs; found the door open and a candle lit on the mantelpiece in the back room; I saw the body of the deceased Mary Gallagher, lying on the floor dead, with her head and her hand off and lying in a tub on the right side of her body; we went into the back room and found Mrs. Mears lying on the bed; she was pretending to be asleep or drunk; I put my hand upon her to rouse her…I asked her, "Who killed that woman?" she said a man came up with her in the morning about seven o'clock, said that man killed her; I asked her why she did not call for the police; she said she didn't want the police to catch him; she wanted to give him a chance to get away, because he was a good looking man…

image: Tristan D. Lalla (nose, anamorphic); bucket (anamorphic); waking (straight), man wielding axe (Muybridge, anamorphic), newspaper scan (8 July 1879 *Gazette*, straight)

text: Constable Neil McKinnon found Gallagher's body and Susan Kennedy in the adjacent room.

6b   **07:17:12 – 08:11:15**
image: Eadweard Muybridge portrait (straight to anamorphic); goats (Muybridge, straight), Muybridge swinging a pick (Muybridge, anamorphic)

text: Who gets away with murder? (anamorphic)
When Mary Gallagher was beheaded, Eadweard Muybridge was photographing figures in motion, a pursuit that would lead to cinema's advent a decade and a half later.
Five years earlier, Eadweard Muybridge was himself charged with murder.
He was acquitted of killing his wife's lover on grounds of justifiable homicide and insanity due to mental anguish.

6c   **08:11:16 – 09:08:05**
audio: press commentary, (*Star* 30 June 1879)

The man, Flanagan, is believed by the police to know something about the murder if he only wishes to tell it, and the theory is that he was a witness of the attack by Mrs Mears upon the poor victim of the other's jealousy, that seeing the end of the struggle he fled down the back stairs and got away as fast as possible, leaving Mrs. Mears alone with the corpse. The husband's strange conduct is severely commented upon, but the detectives believe he had nothing to do with the murder, and he tells the truth to the best of his ability. He seems slightly demented, and was very much afraid of his wife, who seems to have been a terror to the police as well as everyone else.

image: Montreal map (Hopkins, straight); couple waltzing (Muybridge, straight); hands waving (Muybridge, anamorphic); Alexandria Haber (hands, anamorphic), washing floor (original animation, straight)

7a   09:08:06 – 10:31:13
image: Montreal map (Dawson, straight); crime scene map (*Star* 1 October 1879, straight); getting out of bed, dressing, couple waltzing, man wielding axe, man walking (Muybridge, anamorphosis); crime scene illustration (*Canadian Illustrated News*, anamorphic)

text: 27 June 1879, 7am: Mary Gallagher and Michael Flanagan visit Susan Kennedy and Jacob Mears.
242 William Street ~ The murder scene
219 Young Street ~ Police Station No. 7

7b   10:31:14 – 11:54:21
audio: Susan Kennedy (testified 30 June 1879)
She was sober when she came to my house in the morning; she had been drinking some, but she was sober; she was accompanied by a young man; I did not know him but heard his name was Flanagan; they sent me for a bottle of whisky, which we drank together; Jacob didn't drink any; he ran out when he saw the whisky; he did not mind her coming alone, but he objected when the young man was with her... besides these two, a young man came into the house while I was asleep; I refused to go for any more liquor; when I woke up I found another bottle besides the one which I bought; I asked the young man for some money to buy some apples; the deceased scolded him for giving it to me; he called her a gray-haired old rat; he thought she was a younger woman; that is all the quarrelling I heard before I left them and went into the other room; I was very sleepy; Flanagan was asleep all this time; snoring fast asleep; I woke up late in the afternoon;

image: Alexandria Haber (frontal portrait, anamorphic); Montreal maps (Dawson, Hopkins, Tackabury, straight)

7c   11:54:22 – 13:30:21

audio: Susan Kennedy (continued)
I think it was not far from 3 o'clock; when I woke up this young man had left the house; the woman was dead; Flanagan woke up shortly after I did; I heard him speaking; he called out for a drink of water; I told him that I had some trouble since he went to sleep, and that the man had killed her; When Flanagan saw the woman, he said - "Good god! her heads off," and ran out; it must be the man who came to my house, for it could have been no one else; it was not Flanagan, for the poor fellow was asleep; and it was not Jacob either, for he was out. I heard no noise; I was sound asleep when the head was severed from the body; there was no woman who did it; there was no person there but ourselves; no person done it but him; I might have told Chief Paradis it would take two men to kill her, for I was so frightened I did not know what I was saying.
I am not guilty, I am not guilty, I am not guilty...

image: Alexandria Haber (frontal portrait, anamorphic), Montreal maps (Dawson, Hopkins, Tackabury, straight)

text: At trial, Susan Kennedy's lawyers proffered two defences: 1) lack of evidence 2) insanity. She was sentenced to hang on December 5, 1879, but her sentence was later commuted to life.

8   13:30:22 – 14:54:22
image: Montreal map (Dawson straight), waves (original animation, straight)

Channel Two

1   00:00:00 – 00:33:07
image: man wielding axe, dog (Muybridge, anamorphic)
audio: axe falls

2   00:32:08 – 01:56:15
image: photographs of hysteria (Charcot, anamorphic)

text: How does one picture the insensible?
Neurologist Jean-Martin Charcot published portraits of "madwomen" in Iconographie photographique de la Salpêtrière (1877-1880).

2c   01:56:16 – 02:40:09
audio: Susan Kennedy, Part 3 (testified 30 June 1879)
I was able to wash up the blood, but I thought Jacob would soon be in; I did not think of calling out at any rate; I did not like to shout out like a fool; I hardly knew what to do; I nearly lost my senses when I saw her dead.

image: Alexandria Haber (frontal portrait, anamorphic); Montreal map (Hopkins, straight); scanned headlines (*The Gazette*, anamorphic); bucket (anamorphic); woman dancing (Muybridge, anamorphic)

text: The Inquest took place two blocks away from the scene of the crime at the Young Street Police Station.
[headlines] from The Gazette, 2 July 1879

3   02:40:10 – 03:57:11
image: newspapers (original animation, straight); scanned headlines (anamorphic); dog, man wielding axe (Muybridge, anamorphic)

text: The Gazette, 28 June 1879
The Star, 28 June 1879
The Globe, 30 June 1879

4a   03:57:12 – 04:51:15
image: Griffintown photograph (Notman, anamorphic), bucket and hands wringing rag (original animation, anamorphic)

4b   04:51:16 – 05:08:07
audio: press commentary, *Star*, 30 June 1879
From the wounds upon the body of the murdered woman, there seems no doubt that her death was at the hands of a woman. Police officers say no man would have vented his rage in such a manner.

image: Deena Aziz (full face shot, anamorphic), newspaper scan (Star, 30 June 1879, straight), headline scan (*The Gazette*, 30 June 1879, anamorphic)

5   05:08:08 – 06:31:15
image: bucket (anamorphic); Montreal (lithograph, straight); washing floor (original ani-mation, anamorphic and straight); hands wringing rag (anamorphic); photographs of houses on Barré (anamorphic); man throwing water (Muybridge, anamorphic), Montreal map (Dawson, straight), waves (original animation, straight)

text: "No, as in true theatre, without makeup or masks, refuse and corpses show me what I permanently thrust aside in order to live. These body fluids, this defilement, this shit are what life withstands, hardly and with difficulty on the part of death." ~ Julia Kristeva, The Power of Horror, 1982.
"In the upper city that are no more that fifty persons to the acre of extent. In a sin-gle block on Young Street dwell 500 souls" (Ames).

"The sanitary conditions of the 'city below the hill' is a disgrace to any nineteenth century city on this or any other continent." ~ Herbert Brown Ames, The City Below the Hill, 1897.

"…in the lower city not less that half the homes have indoor water-closet privileges. In 'Griffintown' only one in four is suitably equipped." (Ames).

6a   **06:31:16 – 07:13:07**
image: microscopy of mould & insect (straight); washing floor (original animation, anamorphic); newspaper scans (*Gazette* & *Witness* 28 June 1879, straight); crime scene map (*Star* 10 October 1879, straight); pigs (Muybridge, anamorphic)

6b   **07:13:08 – 08:28:07**
audio: Catherine McCarthy
These clothes belonged to Mary, of that I am positive. Besides some of this braid became unstitched and I sewed it on myself. This jacket was also hers. It was a long jacket. I see she has been changing it. This brown lace she carried in her pocket. I asked her why she carried in about, and she said, "Well, I have a dress, and I intend to put it upon it." She was in the habit of drinking heavily. She was often in the habit of making Mrs. Mears' house her home. I have seen the deceased and Mrs. Mears in gaol. I am acquainted with Mr. Flanagan. I have seen him under the influence of liquor. (I have seen him very tight). He used to visit Mrs. Connors on McCord Street. I have never seen Mrs. Mears and Flanagan in company.

image: woman dressing (Muybridge, anamorphic); Diana Fajrajsl (mouth close up, full face with lace, anamorphic); newspaper scan (*Gazette*, straight); abstinence pledge (Walker, straight)

text: Catherine McCarthy identified items belonging to Gallagher.
Though detailed, it is unclear whether McCarthy's testimony was accurate or helpful.
"…drink is inseparable from idleness and poverty…" (Ames, The City Below the Hill)

6c   **08:28:08 – 08:57:11**
image: Griffintown photograph (Notman, anamorphic)

7a   **08:57:12 – 10:05:04**
audio: Jacob Mears (testified 28 June 1879)
When, when, when. Yes, sir, I saw her; she was lying dead; she was well in the forenoon; saw her dead in the afternoon; it was about twelve o'clock sir. Oh, she was dead, dead; the head was on the floor, I think it was in the tub. I went away for groceries and did not come back. Oh yes sir, went for breakfast. I thought it hard to have

her lying on the floor. I was not an eyewitness to it at all. Oh no, no, no one told me. My wife was lying in bed when I saw the body on the floor; don't know who was in bed with her; don't know who he was, or whether a man or a woman...

image: Dean Fleming (frontal portrait, anamorphic), Montreal maps (Dawson, Hopkins, Tackabury, straight)

7b   10:05:05 – 11:28:12
audio: Jacob Mears (continued)
I told my wife I would not come back; people drinking whisky annoyed me, don't know at what time the woman was killed. I got some cakes and beer at my grocer Flanagan's, and ate them at home. My wife and this man were in bed at seven in the morning; don't know where the other woman was then; she might have been on the floor; she was well at seven o'clock, right well, but her head was in the tub when I returned at twelve; when I came back my wife was in bed resting, but right sober, sir.

image: Dean Fleming (frontal portrait, anamorphic), Montreal maps (Dawson, Hopkins, Tackabury, straight)

7c   11:28:13 – 13:27:02
image: Montreal maps (Dawson, Hopkins, Tackabury, straight)

text: Although the Inquest jury found all three suspects guilty of the Gallagher murder in July, Jacob Mear's innocence was established before the autumn trials.

8   13:27:03 – 14:54:22
audio: newspaper report (*The Gazette* 6 December 1879)
The name of Michael Flanagan will be familiar to all who read the accounts of the Griffintown murder... Flanagan it will be recollected was one of those tried, but he was acquitted. Susan Kennedy, on the contrary was, as is well known, sentenced to death, which afterwards was commuted to the penitentiary for life. Had her sentence not been remitted she would in all probability have yesterday suffered the last penalty of the law; and had the verdict of the Court been the reverse of an acquittal in the case of Flanagan, there is an extreme likelihood a similar fate would had been his on the same day. Flanagan, however though he was to suffer a violent death, was not as the saying has it, "born to be hanged." The unfortunate man was yesterday morning drowned in the Wellington Basin... He slipped and fell into the water, his body disappearing beneath the ice. It is certainly a strange coincidence that Flanagan should have lost his life on the very day that Susan Kennedy was to have been hanged for a crime, with the circumstances of which he was so intimately acquainted.

image: newspaper scan (*The Gazette* 6 December 1879, straight); washing floor (original animation, anamorphic); Tristan D. Lalla (anamorphic); woman throwing water

(Muybridge, anamorphic); Montreal map (Dawson straight); waves (original animation, straight)

Channel Three

1   00:00:00 – 00:31:15
image: man wielding axe, dog (Muybridge, anamorphic)
audio: axe falls

2a   00:31:16 – 01:27:11
audio: Susan Kennedy, Part 1 (testified 30 June 1879)
...the woman was dead; I got such a fright that I fell upon the floor beside her; her head was in the tub, and one of her hands; I went to call the police, but I was too weak; I told Jacob to call the police; poor Jacob did not know anything about it; he looked in the room and I think he saw Flanagan on the bed; Jacob said to me, "Did he kill her?"; he ran out and did not wait for an answer; I was wiping up the blood upon the floor and I fell among it; it was running over the floor; I was frightened...

image: dog (Muybridge, anamorphic); bucket (anamorphic); Alexandria Haber (frontal portrait, anamorphic); Montreal map (Hopkins, straight); scanned headlines (*The Gazette*, anamorphic); bucket (anamorphic); woman dancing (Muybridge, anamorphic)

text: On the evening of Friday, June 27, 1879, Mary Gallagher was found dead in the Griffintown flat of Susan Kennedy and Jacob Mears.
Police roused Kennedy from her bed in the next room, questioned, and arrested her.

2bc   01:27:12 – 02:21:15
text: Honest women are kept in line by factors such as maternity, piety and weakness. When a woman commits a crime despite these constraints, this is a sign that her power of evil is immense...All women born criminals are prostitutes. Cesare Lombroso. La donna delinquent (Criminal Woman, 1893)

3   02:21:16 – 03:44:03
audio: press commentary, (*Star* 28 June 1879)
The news of the murder spread like wildfire, and from the time the police first heard of the affair the place was beseiged by hundreds of hungry-eyed people, whose curious appetite sought out every scrap of news, and gloated over the terrible affair in a most disgusting fashion. Even at nine o'clock this morning, despite the rain, hundreds of people collected about the house, and sought admission to the scene, which to the

disgrace of our police force, be it said, was denied to no one. Our reporter gained admission to the room after being jostled and pushed, and notwithstanding the revolting nature of the scene, could hardly write his notes for the jostling of the people to get a look at the body, and walk off with expressions of horror.Women were refused admittance, some of them ugly-looking hags, all having forced themselves to the door of the room to hear the policemen exclaim severely, "No women nor children here." But a crowd of girls and women clambered up the back steps and opened the door, whereupon the policeman made a charge upon them, and shut and bolted it.

image: Montreal map (Dawson, straight); crime scene illustration (*Canadian Illustrated News*, anamorphic); newspaper scan (*Star,* anamorphic); goats (Muybridge, straight); waves (original animation, straight).

text: The only picture from the Gallagher murder case illustrates the scene of the crime as spectacle.
Crime scene photography and mugshots were not yet standard.
Onlookers visited the house, saw the body and hung about the police station and courthouse.

4   **03:44:04 – 05:07:11**
audio: Susan Kennedy
I am not guilty. I am not guilty. I am not guilty…

image: Montreal (lithograph, straight); man wielding hatchet (Muybridge, straight); Alexandria Haber (hands, anamorphic); newspaper scan (*Herald* 29 June 1879, straight)

text: Instinctual monomania: the actions are involuntary, instinctive and irresistible. (E. Shorter, A History of Psychiatry)

5   **05:07:12 – 06:31:05**
audio: Helen Burke (testified 4 July 1879)
There was not much quarreling in the house; the noise was mainly her calling out the window (sometimes all night); that Friday, I heard her all morning shouting from window to window; about 12 o'clock she became quiet for a few minutes; then I heard an awful tumble as if something had fallen; it sounded like something heavy falling, not like a bench or a table, but a heavy body like a bag of something which shook the whole house, and knocked down plaster from the ceiling in two places; it was not a sharp noise; I did not hear any talking prior to this noise; the only noise was Mrs. Mears' shouting at the windows; after that I heard a person chopping and the blows appeared very heavy; the chopping shook the house; this chopping lasted fully ten minutes; then everything was quiet; afterwards she came to the window in the rear, and spoke in a low voice; she said as if to some children who were playing on the street "I was looking for revenge, and I got it."

image: Julie Tamiko Manning (closeup of ear, anamorphic); Montreal map (Goad, straight); newspaper scan (5 July 1879 Star, straight)

text: Ellen Burke (widow of John Troy) lived in the apartment below Kennedy and Mears.
Burke spoke before Inquest the evening of July 4, 1879.
At Kennedy's murder trial in October, Burke's testimony changed.

6a   06:31:06 – 06:58:17
image: crime scene illustration (Canadian Illustrated News, straight)

text: We give only the exterior of the accursed house in which took place the murder of the unfortunate woman Gallagher The curious crowd stands in front of it. The woman's head and one of her hands were chopped off and found in a tub. The excitement over this atrocity is not yet over. ~ The Canadian Illustrated News, July 12, 1879.

6b   06:58:18 – 07:54:23
audio: Detective Andrew Cullen (testified 7 July 1879)
I wanted her to take off her clothes but she refused and resisted; with the assistance of two men I took off a black skirt and a whitish skirt and inside this I found a white apron on her spotted all over with blood. I asked her how she got this on; she said she wanted to wipe up the blood for fear it would go through the floor onto the people down stairs. I showed Mrs. McCarthy part of the clothes taken from Mrs. Mears, and she identified one article as being the property of the deceased. I went with her to the house where the murder was committed and we picked up several articles of wearing apparel she said were the property of the deceased; likewise a bunch of lace which had been used to wipe up the blood.

image: woman dressing (Muybridge, straight); Dean Fleming (nose, anamorphosis); woman washing floor (Muybridge, anamorphosis); newspaper scan (*Gazette* 8 July 1879, straight); lace

text: The testimony of Detective Andrew Cullen closed the Inquest on Monday, July 4.

6c   07:55:00 – 08:24:03
image: newspaper scan (*Gazette* 3 July 1879, straight); woman getting out of bed, spinning, dressing, washing floor, getting into bed (Muybridge, anamorphic); Montreal map (Tackabury, straight)

text: Mary Gallagher's reference letter was found at the scene of the crime.

7a   **08:24:04 – 09:45:07**
audio: Michael Flanagan (testified 2 July 1879)
About 7 o'clock on Friday morning last, I was in William Street in the house of Jacob Mears. Mrs. Mears and the woman that is dead, whose name I didn't know, were there. I was not exactly sober. Mrs. Mears went out and brought in a bottle of liquor; I think it was whisky; I drank some and so did the deceased and Mrs. Mears; we emptied the bottle; Mr. Mears left the house about ten minutes after my arrival; he left the three of us there; after drinking the bottle of whisky, I felt sleepy; I got up and went into the next room; I saw a bed there and threw myself on it; and a few minutes afterwards Mrs. Mears came into the room and sat upon the side of the bed and we talked for about fifteen minutes…

image: Tristan D. Lalla (frontal portrait, anamorphic); Montreal maps (Dawson, Hopkins, Tackabury, straight)

7b   **0945:08 – 11:11:16**
audio: Michael Flanagan (continued)
Mr. Mears himself came in then; he said to his wife: "Oh you are in the room with a man!" His wife replied, "Shut up your mouth; I am only talking to him;" Mears walked round for a few seconds, and said "I am not going to stop in the house while there's whisky drinking;" he left the house; after he left I got up; then we finished a little whisky that was left in the bottle; I gave a quarter to Mrs. Mears to get another bottle of whisky, but I do not remember if it was brought into the house; I went to bed for a second time; I felt pretty heavy; I could not say what time it was; I did not see any clock; I fell asleep as soon as I went to bed; the deceased stopped in the back room from the time she went in the morning until I went to bed the second time; the conversation was friendly…

image: Tristan D. Lalla (frontal portrait, anamorphic); Montreal maps (Dawson, Hopkins, Tackabury, straight)

7c   **11:11:17 – 12:13:17**
audio: Michael Flanagan (continued)
When I woke up I asked Mrs. Mears to give me a drink of water; to the best of my knowledge it was about two o'clock; I drank the water lying down; she made no remark; she said nothing at all to me; I asked her to go out for a quart of beer; I gave her ten cents; she wanted a quarter, but I wouldn't give it to her; I jumped out of bed myself and left the house; I saw a woman lying down on the floor in the back room; I saw nothing else; I was in the act of going out; I did not examine her; I did not see any blood on the floor; I was not very wide awake at the time; I was in too great a hurry to go out for a drink;

image: Tristan D. Lalla (frontal portrait, anamorphic); Montreal maps (Dawson, Hopkins, Tackabury, straight)

7d   12:13:18 – 13:27:02
audio: Michael Flanagan (continued)
From two o'clock until supper time on Friday afternoon I was walking around drinking; I took my supper at my mother's; after supper I went down towards the wharf; I stood around until about half-past nine; and went into the saloon for a beer; when I heard of the death, I came down as far as Murray and William streets; I heard the talk among the crowd that Mrs. Mears had been killing a woman; I didn't make much enquiries; I had a little too much liquor in me; I took the notion that it must be the woman who had been with me.I did not hear Mrs Mears say anything against the woman while I was in the house; There were no words between me and the deceased that morning.

image: Tristan D. Lalla (frontal portrait, anamorphic); Montreal maps (Dawson, Hopkins, Tackabury, straight)

text: October 1879, Flanagan stood trial for Gallagher's murder and then, accessory to it. He was acquitted on both counts.

8   13:27:03 – 14:54:02
image: Montreal map (Dawson straight), waves (original animation, straight)

Appendix D: Accompanying Documentation

Ghosts in the Machine: An Assembly of Perspectives. Documentation video filmed and compiled by author, to demonstrate original projection sequences and videotaped reflections. 15min 33. Uploaded to Spectrum. Also available online at vimeo.com/aloader/ghosts

Ghosts in the Machine: Centaur Documentation. Video by author and Shauna Janssen, 1-5 June 2011. Edited by author. 4min 57. Uploaded to Spectrum. Also available online at vimeo.com/aloader/centaur

Ghosts in the Machine: The Inquest of Mary Gallagher. Documentation photographs by author. Available online at flickr.com/photos/alisonloader/sets/72157626743622831/

Kappa Garden. Documentation video, with footage filmed by Thom Wheeler Castillo. Pacific Northwest College of Art, Portland, Oregon. July and Nov 2009. 3min 13. Available online at vimeo.com/aloader/kappa

Tabletop Anamorphs. Documentation of prototype testing. Nov. 2009. 2min 24. Available online at vimeo.com/aloader/tabletop