Quest for Fire: Explorations in Expanded Animation

by

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Abstract

Quest for Fire is the result of two years of theoretical and studio-based research on the current status of animation and its possibilities as a contemporary art medium. This project brings to life the notion of *expanded animation*: work that challenges established understanding of moving imagery through the use of installation and live performance. *Quest for Fire* takes on the moving image as its subject matter, drawing parallels between animation at the start of the twenty-first century—a medium in flux—and its eclectic historical origins. Using fire as a metaphor for animation, this project strips down the moving image to its simplest elements and explores thematic connections with technology, the control over time, magic and illusion. *Quest for Fire* creates an expanded experience of animation, one that is intrinsically linked to a singular time and space as it was at animation's inception in the 19th century.

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Preface

I have chosen to pursue graduate studies to look deeper into the dynamics informing my creative work. Upon embarking on my Master's research, I confirmed that my work deals fundamentally with animation as a contemporary art medium. In retrospect, my past work seems like an intuitively critical reaction to animation and its pervasiveness in everyday visual culture. My Master's research has been an opportunity to reflect on this and other intuitive tendencies that underpin my work.

Besides a childhood fascination with cartoons, my relationship with animation has probably been most significantly shaped by years of work in the commercial animation business. Experiencing first-hand the grueling labour required to produce animation's illusion of life has made me suspicious of its seemingly magical properties. It has also made me acquainted with its mesmerizing powers and how they can be enlisted to entertain desire. This hasn't dampened my fascination or enthusiasm for the medium in the least. If anything, it has heightened my impression of animation's limitless potential and sharpened my interest in unlocking some of the mysteries behind its seductiveness.

Focusing on the medium of animation itself throughout my Master's has vastly broadened my understanding of what can be included in this category, making animation seem pervasive in today's visual culture. This has motivated me to tease out its eclectic historical origins to better understand how animation came to be seen as a singular medium as opposed to an amalgam of theater, projection, magic and photography[1].

[1] This is a reflection of contemporary theorizations which suggest animation has returned to such an heterogeneous state.

Growing up Francophone in English Canada has given me somewhat of an outsider's perspective on popular culture and hegemony. Learning to function in two distinct languages and cultures in a sense *relativized* them both, made their learned and arbitrary nature more evident. This may explain my interest in animation as a pop culture medium: I feel a constant need to de-familiarize myself with its normative codes, to read it as a learned set of conventions. I tend to shy away from biography as a means of understanding artwork because I find this overly reductive, but I bring up my background nonetheless, as a reminder that this Master's has been a personal and psychological journey as well as an academic research project. As elusive as it may be, the connection with the personal does exist and should be acknowledged.

Finally, I decided to undertake graduate studies because I needed a renewed sense of focus in my art practice. I quite simply didn't understand what I was making: my work had no running thread, was scattering in too many directions, only skimming the surface. I eventually felt I needed to grasp the underlying meaning of my art practice if I were to pursue it any further.

Chapter 1: Introduction

I. Assumptions About Animation and the Moving Image

My research project is motivated by the desire to challenge my assumptions about the recent history of animation and the moving image[2]. I hold the belief that, during my lifetime, there has been a paradigm shift in the field of moving images and that we relate to these much differently as a culture than we did thirty years ago. This shift can be seen as technological, but to paraphrase Gilles Deleuze (quoted in Crary 8), tools are the reflection of the symbolic structures that enable them, and I feel it is essential as an artist using the moving image to explore what these cultural impulses might be[3]. The paradigm shift I refer to is characterized by:

- the pervasiveness of animation in today's visual culture, typified by computer interfaces, TV commercials, cell phones, video games, billboards, etc.
- the development of seamlessly photorealistic computer-generated moving images
- the widespread accessibility of technological tools to produce and manipulate moving images, whereby viewers become users or producers
- the rise of an *anti-aesthetic* of animation characterized by the handmade, the *lo-fi,* the self-reflexive, the analog and the live[4]

This anti-aesthetic has emerged in fields as diverse as advertising, online user-generated video (*YouTube*) and contemporary art. Lo-fi animation is now a matter of aesthetic choice and a lot of computer-generated work is produced to simulate stop-

[2] The blurring of the categories of *animation* and *moving image* is key to my understanding of contemporary visual culture. For this reason I will use these two terms more or less interchangeably throughout this document.
[3] I could rephrase this as a question: do we watch moving images because the technology is available, or did we develop technologies in response to a need to watch representations of time?
[4] This echoes Norman M. Klein's discussion of the simultaneous increase in interest between computer-generated imagery and stop-motion puppets in the late 90s, early 00s. (Klein, Animation as Baroque 44)

motion's slightly awkward and organic feel[5]. This thesis speculates on connections between these developments, and reflects on how they have been running threads in my own work.

Animation today is in a destabilized, heterogeneous state: it is a category in flux, one that eludes definition. Whereas in modernity notions of animation and cinema where predictable, in contemporary visual culture the boundaries between the two have been blurred, making animation slippery as a medium. I have become interested in moments when the moving image undergoes this kind of identity crisis because I see these as opportunities to reflect on the fundamentals of the medium and our relationship to it. Part of my research considers animation's inception in the nineteenth-century as another destabilized—or not yet stabilized—moment in its history and to examine how it compares to what has been termed the "end of cinema" at the close of the twentieth century (Friedberg 438).

II. Animation as a Contemporary Art Form: Expanded Animation

One reason I chose to pursue my Master's degree was to understand the specific possibilities of animation as a medium in the context of contemporary art. I wanted to better understand its critical or reflexive potential. This was motivated in large part by the latter two shifts I mentioned in the previous section. Widespread access to the tools of animation production, and distribution through channels like *YouTube,* has democratized moving image practice, redefining the role of the animator as artist, or the contemporary artist as specialist. The sheer volume of user-created animation

[5] For example, the animated television show *South Park*'s rudimentary cut-up paper style is in fact produced using Maya, a sophisticated 3D animation software package. (FAQ - South Park Studios)

work and its inescapable presence in popular culture raise many issues, such as the corporate ownership of user-provided content on a website like *YouTube.* It also challenges the privileged status of moving image practice as an art form and the notion of a limited edition as opposed to the open-source distribution model represented by the internet.

My initial reaction to the pervasiveness of user-created moving images has been to consider hybrid practices like animation combined with installation or live performance as alternatives to single-channel works. I have been referring to these practices as "expanded animation" and have been increasingly interested in other artists using similar strategies[6]. A growing body of contemporary animation work (which I'll examine in the next chapter) is expanding established notions of what animation can be, and challenging our relation to moving image viewership. Moreover, much of this expanded animation work resuscitates nineteenth century techniques such as shadow puppetry, magic lantern shows or stereoscopy, with a marked emphasis on performance. I see this trend towards the live as a reaction to the dominance of digital animation and the overabundance of mediated experience in contemporary visual culture, a sort of emphatic return of the real: the real time and space of the viewer.

Animation's pervasiveness in contemporary visual culture is problematic in that it lends it a certain false transparency[7]. It has become perfectly normal to watch moving images without any awareness of this activity as culturally and historically determined. Both my theoretical research and my studio practice function to de-familiarize visual

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[6] I acknowledge Norman Klein for coining the expression in his "Expanded Animation: Five Hundred Years of Stories and Environments" presentation at Tate Modern's *Pervasive Animation Symposium*, although my use of it is more in line with Gene Youngblood's notion of "expanded cinema".

[7] For the purposes of my research, I understand contemporary visual culture to include mass media print, advertising, the internet, computer interfaces, video games, film and television as well as contemporary art in the early twenty first century. I see it as the sum total of codified visual experience, how we attribute meaning to visual phenomena in our everyday lived experience.

experience, to derail it temporarily. I would like my work to create awareness of the fundamentals of vision and how they are shaped culturally: a return to the basics of perception if such a thing is possible.

This may indicate a yearning to reestablish a connection to the sensorial world; an appreciation for the magic of perception; a staunch refusal to consider the visible world as fact but rather as a bizarre and wonderful unfolding of illusion. Animation is fascinating to me in that it relies entirely on a magic trick, an optical illusion (the mind fooling itself into perceiving movement out of a sequence of still images), and has through time come to be seen as a realistic depiction of time and movement. Through technological and cultural developments such as photographic cinema and the standardization of the visual codes of montage, viewers have become accustomed to the illusion of movement as diegetic, or as a realistic visual representation of time and space.

Chapter 2: Review of Relevant Art Works and Literature

My research has been spurred on by the work of several fellow artists who have been using animation in the context of contemporary art in the last ten years or so. While these artists' practices are wide-ranging, I find it useful to group them under the rubric of expanded animation I mentioned earlier: works that address the nature and function of animation by expanding it through installation and performance. This body of work represents the field of research my practice is responding to.

Miwa Matreyek's performances combine rear-projected animation, shadow puppetry and animation projected onto sculptural elements. Matreyek's practice is exemplary of expanded animation which reactivates 19th century tropes. (Still from *Dreaming of Lucid Living* (2007), from the artist's DVD)

Artists Kathy Rose, Miwa Matreyek, Shary Boyle, Daniel Barrow and Zeesy Powers mix live performance with projected animation. In these artists' work, the physical presence of the performer is foregrounded through the use of shadow puppetry, projections on the body or hand-activated overhead projections. The lock-step rhythm of animation and the intangible quality of projected light find an effective counterpoint in the irregular but grounded movements of the performer's body. These artists' insistence on *performing* animation harkens to the early history of the moving image in the late eighteenth and nineteenth centuries, when the distinction between live theater and moving image projection wasn't yet as clear.[8] Likewise, collectives

[8] Before cinema became streamlined (feature-length films shown in purpose-built theaters), the local or traveling entrepreneur exhibiting the film wielded a huge influence over the experience, acting almost as a master of ceremonies or magician. Early cinema is wrongly thought of as silent. It was actually always accompanied by a live soundtrack the film exhibitor

Hooliganship and Film Fort have developed curatorial practices reminiscent of touring film exhibitors from the same period: organizing animation screenings which create a unique viewing experience steeped in a specific scene or locale.

Artists Kara Walker, William Kentridge and Paul Chan should also be mentioned for their use of early animation techniques—shadow puppetry in particular—in the context of gallery installations. Reinterpreting animation as a multimedia installation, *Quest for Fire* contributes to the ongoing dialogue between the practices mentioned above and creates moving images that are intrinsically linked to a singular time and space, similar to the way they could have been experienced at animation's inception.

Quest for Fire was inspired in part by my experience of two works of art in recent years: Diego Rivera's *Dream of a Sunday Afternoon in Alameda Park* (1948) at the Museo Mural Diego Rivera in Mexico City, and David Hockney's *Snails Space with Vari-Lites* (1995-1996) at the Smithsonian in Washington, DC. Diego Rivera's mural is presented by the Museo via a sound-and-light show where slides are used to isolate certain historical characters and to explain who they were. This sparked my curiosity to the rich possibilities and history of multimedia. David Hockney's remarkable abstract mural is lit by nine computer-controlled lights that dissolve slowly over the course of a ten minute program, significantly altering the appearance of the painting. This piece, which stems undoubtedly from Hockney's vast experience as a theatrical set designer, gave me the idea of using coloured light as a means of hiding and revealing parts of an image in sequence, generating the illusion of movement.

Understanding the history of early animation has been a key part of my research. I looked to C.W. Ceram, Werner Nekes and Albert A. Hopkins for historical reviews

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would string together: music, live sound effects and foley, performers syncing lines to the images or lecturers explaining the action as it unfolded (Hansen 139 Gaudreault, 274)

covering magic shows, dioramas, magic lantern spectacles, phantasmagoria, shadow puppetry, philosophical toys (zoetropes, phenakistiscopes, thaumatropes, etc.)[9] and early iterations of photographic moving images. These authors provided me with an account of the heterogeneous cultural origins of animation and a better understanding of the intimate relationship between cinema and magic, which has proven crucial in creating the kind of experience *Quest for Fire* attempts to provide.

Jonathan Crary's Techniques of the Observer establishes a timeline of optical devices and frames it within a history of vision from the Enlightenment to Modernity. Crary posits that in the nineteenth century vision became understood as embodied rather than objective external truth. Science's attempts to rationalize optical phenomena such as persistence of vision, colour perception or afterimages, became part of the technological and cultural thrust which produced cinema (137-138).

In the The Emergence of Cinematic Time: Modernity, Contingency, the Archive, Mary Ann Doane also deals with modern subjectivity, focusing on how the fleeting nature of the present became central amidst modernity's cultural upheaval. Borne out of this new temporal consciousness, photography, cinema and animation emerged as means to capture and represent time. Doane underlines this last point when she quotes Andreas Huyssen: "the issue of media [...] is central to the way we live structures of temporality in our culture." (4)

Crary and Doane's writings provided my research with the backdrop of modernity and its radical transformations of vision and subjectivity. However, my research and studio

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[9] The zoetrope is a slotted cylinder rotating on a vertical axis, its inner face fitted with a sequential image strip. The phenakistiscope is a slotted image disc rotating on a horizontal axis, the animated images viewed through the slots and reflected in a mirror. The thaumatrope is a disc with an image on either side, meant to be flipped in order to fuse both sides into a single image through persistence of vision (ie. A bird on one side and a cage on the other fuse to create the illusion of a caged bird).

work are more concerned with what came before and after this period so dominated by the photographic/narrative model of cinema. My work focuses on animation's early history and how it resonates with the moving image experience today.

Tom Gunning's conception of the "cinema of attractions" in "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde" (56) is crucial to my understanding of early moving image viewership. For Gunning, early cinema can be seen as a culture of the spectacular that was unconcerned with the idea of diegesis, that is, with the notion of creating a believable representation of reality and temporality:

> [...] this is a cinema that displays its visibility, willing to rupture a self-enclosed fictional world for a chance to solicit the attention of the spectator [...] the cinema of attractions directly solicits spectator attention, inciting visual curiosity, and supplying pleasure through an exciting spectacle – a unique event, whether fictional or documentary, that is of interest in itself. [...] Theatrical display dominates over narrative absorption, emphasizing the direct stimulation of shock or surprise at the expense of unfolding a story or creating a diegetic universe. (ibid. 57-59)

Animation relates to this early mode of film reception in that it can never be fully diegetic or realistic because, as viewers, we are aware of its existence as fictional, as hand-made. The indexicality of photographic cinema, on the other hand, exists as a record of actual events.

With *Quest for Fire*, I am interested in revisiting the cinema of attractions as a contemporary form of spectatorship. The use of installation or live performance can be seen as distancing strategies which prevent viewers from fully experiencing the moving image as diegesis. Like the expanded animation practices I mentioned earlier, I wish to foreground the actual time and place in which animation is experienced: the present trumps the represented temporality of the image. Ultimately, this serves to underline animation's existence as illusion and to de-familiarize the experience of

watching moving images. Animation becomes a way to understand our experience of time and vision, which relates to Gene Youngblood's "expanded cinema", albeit without its utopian overtones:

> When we say expanded cinema we actually mean expanded consciousness. Expanded cinema does not mean computer films, video phosphors, atomic light, or spherical projections. Expanded cinema isn't a movie at all: like life it's a process of becoming, man's ongoing historical drive to manifest his consciousness outside of his mind, in front of his eyes. (41)

Finally, key to my understanding of animation in light of recent developments in the field of the moving image has been New Media theorist Lev Manovich's contention that cinema (in the sense of classical photographic cinema) is actually a subcategory of animation: "Born from animation, cinema pushed animation to its boundary, only to become one particular case of animation in the end." (255)

This would seem contrary to the subordinate or marginal role animation played in modernity: animation was either relegated to children's films and advertising or served to support the indexical narrative cinema with titles or special effects[10]. But digital animation technology has now evolved to a point where the boundary between animation and photographic cinema has been irrevocably blurred, as films like James Cameron's *Avatar* demonstrate. Animation and cinema have in many cases become visually indistinguishable.

Manovich's apparent reversal of moving image hierarchy is important because it points to a broadening of what we define as animation. This reevaluation of what animation is and its relation to the moving image in general has been an important

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[10] Animation is described as "cinema's bastard relative, its supplement and shadow" by Lev Manovich, quoted by Steve Reinke in "The World is a Cartoon: Stray Notes on Animation." (11)

part of my process. *Quest for Fire* comes as an attempt to re-imagine the experience of animation, one which would not have been possible without first re-imagining its history to include wide-ranging phenomena like puppetry, sound-and-light spectacles, slide shows, computer interfaces and rock show lighting.

I would also mention the following authors to provide an overview of the wide-ranging theoretical framework I have been working within: André Gaudreault, Miriam Hansen and Dieter Daniels' writings on early film and media history; Laura Mulvey's writings on the experience of the moving image in the age of interactivity; Chris Gehman and Steve Reinke's The Sharpest Point : animation at the end of cinema; Lynda Jessup's Antimodernism And Artistic Experience: Policing The Boundaries Of Modernity, especially Matt K. Matsuda's article on the revival of shadow puppetry in fin-de-siècle Paris; finally, Henry Jenkins and Kiri Miller's writings on folk media practices have enriched my understanding of online user-created animation and video as a complex form of cultural expression.

Chapter 3: Body of the Thesis

I. Research Questions

What is animation?

For the purposes of my research, what do I understand as animation? How does animation relate to the moving image in general, and how did this category come to be understood as such historically? Can it be seen as pervasive in contemporary visual culture?

What does it mean to use animation in a contemporary art context?

How does one address the medium of animation critically? Can expanded animation do this meaningfully? What are the obstacles when considering animation within a critical framework?

What parallels can be made between the first iterations of animation in the 18th and 19th centuries and current developments in animation?

Can animation be seen as destabilized in both contexts?

How can recent developments in animation be related to each other?

Can the development of photorealistic computer-generated moving images, the emergence of "digital folk" animation[11] and trends towards expanded animation in contemporary art be seen as part of a common cultural impulse?

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[11] I am thinking here of user-created *YouTube* videos for example.

II. Methodology

> "What is found at the historical beginning of things is not the inviolable identity of their origin; it is the dissention of other things. It is disparity." (142)
>
> Michel Foucault

Quest for Fire came into existence as a conversation between intuitive studio-based experiments and systematic historical research. My initial interest lay in periods or contexts in which the status of animation is destabilized. I thought it would be productive to strip the medium down to its essential components by looking back at its origins. The rudiments of animation I identified provided me with fodder for studio explorations. Light source, projection, frame rate, projection surface, representation of the body, viewing context, frame shape, narrative structure, position of the viewer in space: these elements only became standardized or normalized through a drawn-out historical process. Isolating and subverting these components became a productive means of generating new works. Through this approach came the awareness that my animations were *about* animation. My method could be termed structuralist in my use of the material of animation as content. I realized my ultimate aim was to produce "unmediated" moving images: a self-aware experience of the illusion of animation. I have come to see my practice as a reaction to the moving image in modernity and an attempt to whittle animation down to its primitive elements: magic and illusion.

As my researched progressed, this desire to return to simpler forms emerged as a running thread through my work. This was the case with my studio work as well as the historical comparison I was making between contemporary moving image culture and its origins. In fact, I now see the symmetrical historical timeline I was cobbling together as an oversimplification, albeit a very fruitful one. Like one of Zeno's paradoxes (the movement of an arrow can't be broken down into a succession of still

moments (Dumont 376)), the history of animation is constantly in flux: it is not constituted of specific static "moments".

Lynda Jessup's writing introduced me to the notion of antimodernism in art: the tendency by artists to look back nostalgically at pre-modern, folk or traditional practices as more authentic (3-4). I related it to a retrospective strain in my work and in other expanded animation practices that reactivate older forms of animation in a folk-like manner. I also identify antimodernism as a tendency to eschew the language of high art, to gravitate towards folk and pop culture through the use of humour. This is an essential tension in my practice. I try to make funny work with a serious, reflexive undertone, art that straddles popular culture and high art.

III. Redefining Animation at the End of Cinema

Redefining animation in relation to cinema has become crucial because of the growing prevalence of computer-generated animation in mainstream indexical narrative film. This points to one of the assumptions I had raised in the introduction to this document: animation can now be used seamlessly, blurring the distinction between what has been filmed using a photographic process and what has been created through digital synthesis. The indexical nature of cinema—how it functions as a photographic record of actual events—has been compromised, we can't trust moving images as we once could. Robert Zemeckis' *Forrest Gump* is a good example of this in the way it composites new footage of Tom Hanks into archival film clips of John F. Kennedy, taking this uncanny effect to the level of the historical. Now that we know that animation and cinema can be visually indistinguishable from one another, defining animation strictly in opposition to cinema becomes difficult.

What could be deemed a crisis of indexicality in cinema relates to what has been called elsewhere the "end of cinema," or the complete transformation of the cinematic experience by interactivity (Friedberg 438). Digital imaging not only challenges the indexical nature of the image but also affects our relationship to the representation of time. Ann Friedberg points out that, starting with the commercialization of the VCR, viewers were given freer reign over the playback of films: they could pause, rewind, fast-forward at will (441). Their viewing experience also became personalized, in that they could watch films at home, in a context and at a time of their choosing.

The ability to record and edit video opened up new forms of expression to viewers, while challenging the linear format familiar to our reception of classical cinema. The VCR's analog technology set the stage for digital cinema, whose possibilities of non-linear playback and lossless copying accelerated this shift towards an interactive relationship between viewers and moving images. In her book Death 24X a Second, Laura Mulvey points to the fact that this essentially creates a relationship where the viewer has access to the fundamental nature of the moving image: its inherent stillness (31). What are the consequences of this new awareness of the still image? I would speculate that it has an anti-diegetic effect in that it works to disrupt the illusion of a coherent fictional world progressing along a linear timeline[12]. Friedberg and Mulvey's points remind me of the experience one has when manipulating nineteenth century optical toys like phenakistiscopes and zoetropes. Although more rudimentary, these early animation devices also let the viewer control the playback of the animation. Viewers are aware of the inherent stillness of the images as the illusion of movement is created. This self-aware pleasure in illusion is at the core of the kind of experience of animation I wish to create with *Quest for Fire*. Unlike indexical moving images that can't be trusted as authentic anymore, I aim to create an experience which the viewer knows is an illusion.

[12] This distancing effect could also be considered Brechtian.

When Manovich says that cinema is a subcategory of animation, this means that animation is the essential form of the moving image, indexical cinema being only one of its possible iterations. The essence of animation, then, is the sequential display of still images to create the illusion of movement. Tom Gunning, seconding Manovich in his *Tate Modern Pervasive Animation Symposium* presentation, defines animation as "moving images which take up movement as an issue" meaning conversely that indexical cinema is a form of animation which strives to hide the movement it is made of, by making it appear natural and therefore transparent.

While I agree with Tom Gunning, my definition of animation remains open-ended. It has come to be more and more inclusive as my research has progressed, embracing puppetry and sound and light shows for example. The term "expanded cinema" I like to use to describe a type of animation practice that includes performance and installation, needs to be broad in its definition of "image" or "movement". Theatrical or sculptural elements are rooted in lived experience but can still be considered images, even if not screen-based. In fact, I think that this broadening of the definition of animation goes to the core of taking movement as an issue. By pushing further what we can understand as moving images, we can maybe start asking questions about what they are, fundamentally.

IV. *Quest for Fire*

Quest for Fire is an installed mural of collaged screen-prints lit by animated computer-controlled lighting. Loosely inspired by Jean-Jacques Annaud's 1982 film *La Guerre du feu (Quest for Fire),* this work explores the prehistoric human relation to fire: fire as an early technology that enabled control over time, and fire as a primordial form of

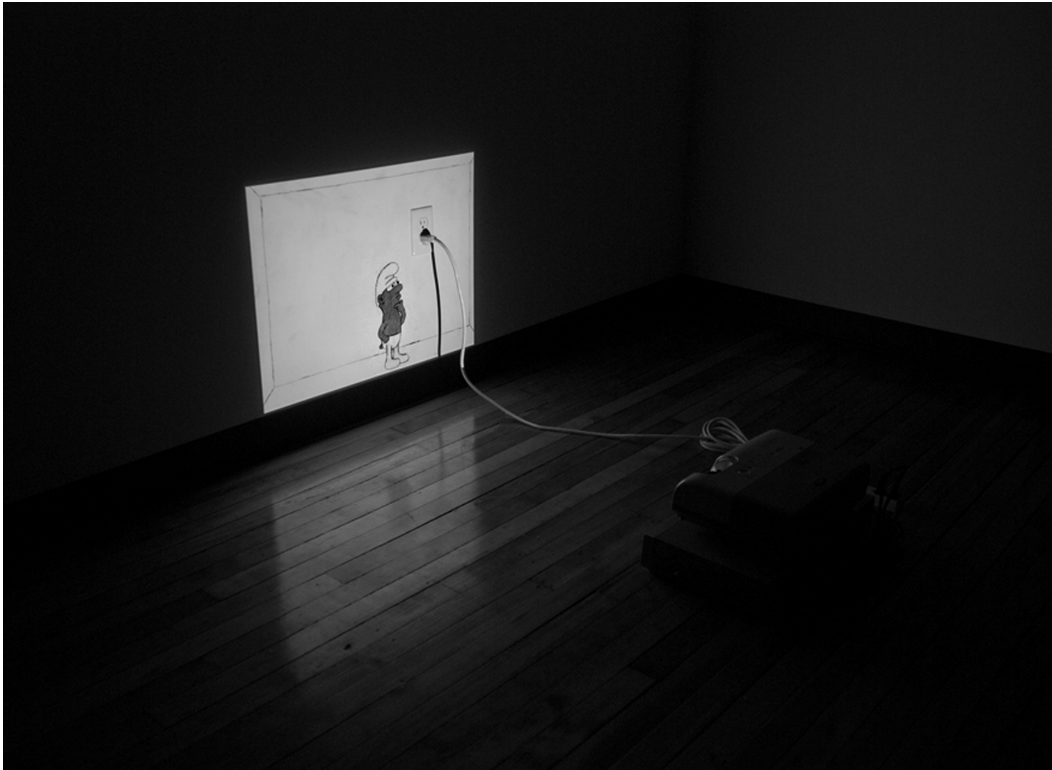
animated light. In my first year of Graduate Studies I produced two works which proved pivotal in the making of *Quest for Fire: Closed Circuit* and *Untitled (Caveman Contemplating Fire).* I will now discuss these works as well as the historical and theoretical reflections that fed into my creative process.

One of the primary concerns of my studio work in the last two years has been to tackle the neutrality of the projection surface. The screen functions for film and animation in much the same way that the white cube does for modern painting and sculpture: a neutral ground which isolates the aesthetic experience of the artwork from its context. When viewing moving images, the screen is meant to become invisible. Researching the history of cinema has brought to my attention how the screen's form—and the audience's relation to it—has changed throughout time. Late eighteenth-century phantasmagoria shows used rear-projection to produce the illusion of conjured spirits. The projected image didn't have frame edges as such: audiences just saw a white ghost appear out of darkness (Ceram 37). The absence of edges blurs the distinction between the projected image and the space it is shown in. Moreover, projecting from behind the screen hides the source of the image, adding another layer to the illusion. In *Untitled (Caveman Contemplating Fire),* I began experimenting with the idea of projection without edges, vignetting the beam of light with black tin. Like phantasmagoria, the piece had an uncanny effect: many puzzled viewers asked me whether the piece was rear-projected. Blurring the projection edges destabilized the image, restored its power of illusion.

Untitled (Caveman Contemplating Fire) (2009, animation projected on print, 20" x 30"). Artist's still.

The projection is made specifically for this surface (the electrical outlet): the piece wouldn't make sense projected anywhere else and engages site-specificity in this respect. Technically, there is no screen in this piece, only animation
looping back onto its source of energy, onto its origins.

This was the first time that I explored the relationship between animation and energy. I began conceiving of electricity as the invisible life force of animation. Electricity is literally what keeps the character alive. The flickering light of animation can be seen as the final stage of a complex process of transfer and transformation of energy. The



Closed Circuit (2009, animation, video projector, DVD player and power bar, 40" x 30"). Artist's still.

energy released by fire and explosions is harnessed in power plants, channeled, transformed and eventually converted once more into light. Domesticated light, tamed fire, became a central metaphor for animation in *Quest for Fire*. Animation is a means of representing, capturing or controlling time's fundamental intangibility or incomprehensibility. As pure movement in a luminous form, fire's perpetually changing and intangible nature relates to time and the fluidity of animation. This connection was suggested to me by Rosalind Krauss, in her discussion of Sergei Eisenstein's reaction to the "amazing elasticity of forms" in Walt Disney cartoons:

> Calling this "plasmaticness," [Eisenstein] compared the freedom with which animated figures change identities–the mobility of their shapes, their endless metamorphic potential–to the phenomenon of fire. The universal fascination with fire, the libidinal energy associated with its formal flux, and the parallel to this presented by animation go part of the way to explain the grip cartoons exert. (Krauss 18)

Like much of my older work, *Closed Circuit* and *Untitled (Caveman Contemplating Fire)* were structured around the loop: the animations themselves were looping, but were also conceptual loops in their own right. *Closed Circuit* was projected onto its point of origin while *Untitled (Caveman Contemplating Fire)* was structured redundantly as an image of light made with light (video projection representing fire). Nineteenth century optical toys—cinema's immediate ancestors—were short animated loops as well. Following Tom Gunning's conception of the cinema of attractions, these early animation machines represent time without the intention of creating the illusion of a realistic narrative world. The loop presents an impossible non-linear temporality that only reinforces the magic of the animation being viewed. Loops seem to have made a comeback of late: animated GIFs could be considered part of this trend[13].

In *Untitled (Caveman Contemplating Fire)*, a looping sequence of red, green and blue video is being projected. The "screen" consists of a red, green and blue print depicting a caveman contemplating fire. The interaction of the coloured light and the similarly coloured print produces a shimmering animation effect, making the flame appear to move. In this case, the projected animation was completely dependent on the projection surface for its meaning: it acted as prepared screen. My thesis project takes the techniques used in *Untitled (Caveman Contemplating Fire)* in a new direction, replacing the video projector with coloured rock-show lights. These computer-controlled LED lights dissolve through a red, green and blue cycle, looping at various speeds[14]. Again, the projection surface is key: it is only through the meeting of the coloured light and the "screen" that the animation comes to life. I chose red, green

[13] Animated GIFs (standing for 'graphic interchange format') are a type of image file developed for the web.

[14] I am using three Chauvet Technostrobe ST-4000 RGB LED lights, communicating with Max/MSP via DMX control, a MIDI-like standard for lighting.

and blue because they are primary colours[15], which enable the creation of three distinct states: each colour is absolutely different from the other two in its wavelength formation. I understand colour theory and animation as stemming from the same historical trajectory, a modern shift in the cultural relationship with the visual. I'm reminded here of Jonathan Crary's discussion of Goethe and the nineteenth century scientific project to formalize vision and colour perception, to see it as embodied and to quantify the physical response (68).

Using computer-controlled rock-show lighting opens up my project to a more open history of animation, one which includes sound-and-light shows and multimedia and time-based audio-visual performance as a whole. The use of lights as opposed to a projector opens up interesting reflections on animation and cinema:

- their variable speed mean that one can experience frame rates themselves
- as the lights strobe faster, one loses the notion of distinct colours and rather perceives a state of flux: it is almost as though one can experience the "flicker fusion threshold"[16], or the rate at which our perception can no longer distinguish individual frames but rather smooth motion. The effect also becomes nauseating, extremely physical and visceral. The animation becomes fascinating and repulsive at the same time
- projector-less animation disrupts the notion of directionality and makes the experience of animation more ambient
- rock-show lighting ties my work to other areas of multimedia (sound and light shows, live music visuals), which are also part of the history of moving images
- there are no frame edges to my piece, which evokes the round or blurred edges of projected magic lantern shows and phantasmagoria
- the presence of the lights in the room, their presence as animation apparatus, evokes the technological magic of early cinema[17]

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[15] Following additive colour theory whereas red, yellow and blue (or cyan, magenta and yellow) are primary colours according to subtractive colour theory.

[16] The flicker fusion threshold relates to persistence of vision. It is the perceptual threshold at which the eye starts seeing sequential discrete images as one consistent movement.

[17] Magic and technology were intimately connected in early cinema exhibition. The projection apparatuses (Cinématographes, Biographs and Vitascopes, for example) were as much part of the attraction as the images they were used to show, if not more. Indeed, they were often in the same room as the audience, it was only later on that they were moved to a sound-proofed

• separating red, green and blue light deconstructs the experience of electric light the viewer associates with video or film, where the three colours are mixed

• the animated effect derived from this technique is an experience of *difference*: rather than seeing colours as such, the viewer starts seeing motion as the difference between states

• animation is stripped down to its basic components: a sequential display of different states to produce the illusion of motion

Although I feel the content of my work is animation itself, I have chosen energy as one angle by which to tackle this vast subject matter. I have been using the prehistoric discovery and control over fire as a theme to discuss the history of the human relationship with light, energy and technology, which I see as essential to understand our relationship to the moving image. The urge to control time—within a larger project of controlling 'nature'—is a key part of the development of moving image technologies. In this sense fire is a primordial form of animation.

The use of prehistoric imagery functions on another level. I have asked myself whether I should steer my work in the direction of abstraction and an immersive phenomenological experience of animation but, for the time being, I still feel the need to use representational signifiers in my work. Representing prehistoric humans makes my work about the act of seeing, as opposed to work which provides a strictly optical experience. At this point, I am wary of leaving the work undetermined to that extent. I also worry that the work would be read simply as a revival of op art or a retro piece of psychedelia. Although I court kitsch in my work, I want it to reflect on the history of the moving image. This being said, future works will probably explore the idea of non-

projection booth (Gunning, Tom. "The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde" 58). Audiences were aware of the illusion and revelled in it. Marvelling at technology and its magical effects is of course a huge part of today's experience of moving images. Even the most basic digital image is essentially the result of computer processing and beyond most people's understanding: illusions, mysteries and magic are at the very core of our everyday.

representational animation.

For me, psychedelic art relates to Tom Gunning's notion of the cinema of attractions. Much like animation, psychedelia is like an undercurrent of modern visual culture, a marginalized form of visuality which shares cinema's lineage of nineteenth-century optical toys and illusions. It relates to the modern understanding of vision not as objective truth but as embodied subjectivity (Gunning 137-138). Psychedelia is an overemphasized visuality: abstract images about the act of seeing. I find psychedelia and the notion of trippiness extremely interesting and I would like my work to be seen being ***about*** psychedelia rather than being simply psychedelic: that is, that it places psychedelia within a historical framework, a larger history of vision.

In *Quest for Fire*, I chose to represent prehistoric humans in a cartoon drawing style. I intended the simplified form, exaggerated gestures and overall coarseness of the representational language to function humorously and ironically. As a means to make my work accessible, humour is part of my politic: it should be seen as a strategy to make light of hegemony. The use of bright colours and familiar visual vocabulary acts to lower the viewer's guard and attempts to enunciate something profound out of lightness. This approach has marked most of my practice: I often eschew a heavy tone, finding humour more effective in creating meaning in my work. This relates to my interest in transforming banal materials (like cartoons) to rediscover the sublime in the everyday.

Chapter 4: Conclusion

Recent developments in the field of animation—the dominance of computer-generated imagery, the return of stereoscopic 3D, interactivity—evoke the type of spectatorship that was typical of the prehistory of the moving image, a prodigal return of Tom Gunning's notion of the cinema of attractions and a waning of realism. I understand diegesis as an attempt to 'realistically' depict time. Watching moving images implies a simultaneous experience of multiple temporalities: the real time of the viewer on one hand (the here and now of the viewing experience) and the superimposed past, future or alternate timelines represented onscreen. Not only is the cinema of attractions a negation of diegesis, of an immersive representation of time but, as a self-aware experience of moving images, it can also be seen as a return of the present: the present time and space of viewership. I feel that this is how expanded animation can be best understood: as an experience of animation anchored in the here and now.

The dominance of hyperreal computer-generated films poses important questions, notably as far as the cinema of attractions and the waning of diegesis is concerned. There is no denying that films like *Avatar* are extremely engrossing, even if they have no real-world referent like the indexical cinema does. I am unsure if they will function as self-aware spectacular experiences much longer. They might feel this way now because of their novelty, the stark contrast they oppose to the photographic cinema they coexist with. But the present state of animation is more heterogeneous and paradoxical. While hyperreal computer-generated imagery is creating new hybrid indexicalities with motion-capture and 3D scanning, *YouTube*'s 'digital folk' moving image practices emerge as an equally dominant form of animation. These user-

generated DIY[18] videos function like folk culture in their open approach to appropriation and authorship, but also carry over the notion of the cinema of attractions in their direct address, their shock-value, their 'anything goes' approach to content.

As a pervasive form in visual culture, watching animation runs the risk of becoming normalized and falsely transparent. To address this experience reflexively, I think it is vital to consider the apparatus itself, to step away from it in order to become better aware of it. Because it can function outside of a prepackaged reception context, expanded animation like *Quest for Fire* can potentially deal with the moving image's ontological questions more incisively by dealing with the apparatus. These types of experiments can effectively play with the broader structural issues of animation. In this way animation as a contemporary art form can engage the medium in new, challenging ways.

Chapter 5: Contribution to the Field

Quest for Fire engages with the medium of animation at a time when it is at a crossroads: it has become simultaneously ever-present and hard to define. This project draws connections between the contemporary status of animation and its origins, and seeks to create a self-aware experience of the moving image. *Quest for Fire* stimulates a reflection on the profound connections between moving images and vision, energy and our perception of time while reviving animation as a broader practice.

[18] Do-it-yourself.

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Appendix A. Exhibition Documentation Quicktime

This appendix is a Quicktime video file of the *Quest for Fire* installation at 47 Milky Way. The file name of this video file is "questforfire_documentation.mov."

Appendix B. Max/MSP Patch

This appendix is a Max/MSP file (or patch) used to control the lights in the *Quest for Fire* installation. The file name of this patch is "questforfire_patch.maxpat."