First Position .
Second Position

Accessing Conceptual Space in Animation

By Eli Schwanz

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ABSTRACT

First Position . Second Position proposes animation as a framework of both analysis and practice that goes beyond its more common consideration as a form of narrative or genre. Animation can also be embraced as a theory unto itself, bringing with it all of the pleasure, danger, and consequence given to other modes of thought, such as structuralism and agential realism. The work requires from the viewer, a form of conceptual interactivity that addresses concepts of inner conceptual space, layered environments and structural possibilities. Animation is a process, one which occurs in multiple systems simultaneously and cooperatively. Animation is a practice, a medium and a genre, but it is also a way of thinking, seeing and existing through a fundamental expression of being. Within the exhibition, animation engages with these various possibilities through sculpture, installation and video.

Keywords**:** Animation; Inbetween; Conceptual Space; Animation Reflex; Vitalism; Structuralism

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INTRODUCTION

The initial concept for *First Position . Second Position* (the primary exhibition), was generated from my previous research into random, code-generated narrative, attentional phenomena and the possibilities and advantages of structuralism[1] as a framework for nonlinear narrative in video. My research focused on ways in which the viewer could engage with a piece on a conceptual level, inserting themselves into a sequence by filling in the blank spaces of a narrative, subconsciously addressing or explaining ellipses in the story or plot of the piece. I had animated the scenes for an initial narrative experiment entitled *Weak Thoughts / Random Narrative*, eschewing photo-based video for hand-drawn animation, favoring graphic symbolism over the indexicality of cinema.

As I dove deeper into narratology, it became clear that the research needed to focus on the formal and structural aspects of the media I was working in, rather than the genre (or kind) of narrative that I thought I needed. I began my research with inquiry into the structural exploration of random narrative, employing animation as a medium, but was consistently led back to animation itself, the inbetween and the binaries of virtual and actual space.

My research recognizes both genre and cinematic studies as inherent in critical animation studies, but seeks to focus on the medium of animation itself, its processes and its theoretical possibilities. I have chosen to focus on what happens when animation happens rather than concentrating on the factory of animation or animation as an industrial construct. Current animation theory has largely been rooted in cinema studies, having been developed by cinema practitioners (*Eisenstein on Disney* by Jay Leyda), cinema scholars (*Expanded Cinema* by Gene Youngblood) and those interested in the story and authorship of animation (*Animation Genre*

[1] Structuralism as a philosophical construct or relationship. Not to be confused with structural film.

and Authorship by Paul Wells). While these perspectives on animation are valuable, they principally focus on genre or the cultural context of sequential imagery rather than the core mechanism of animation and its implications.

My current project began with common phrasing that one would find in the technique and practice of animation such as inbetweening, silhouetting, unfolding forward and pose-to-pose. *The Animators Survival Kit,* an important book of methods and principles for classical animation by Richard Williams, demonstrates these techniques and terminologies to their fullest. Others, like Alan Cholodenko (in *The Illusion of Life*) and Paul Wells (in *Understanding Animation*), go further to theorize these actions and tie them into ontology and genre studies.

I am positioning animation as a philosophy/theory/methodology that shares phrasing and terminology with philosophy that re-contextualizes, adapts and provides animation with a new ontological perspective. Using terms such as 'inbetweening' and 'unfolding' as guiding concepts or signposts opens up new space for analysis, questioning: When animation occurs, what occupies this space in between? If animation offers us an empty conceptual space between drawings, which we must fill (occupy) in order to project life onto a sequence (animate), then I would argue that this conceptual space can also exist across media.

The exhibition *First Position . Second Position* aligns the viewer within the framework of expanded animation and positions the period (.) – between two structural poles such as the first two drawings in a sequence. Combined with this document, the exhibition seeks to expand concepts of traditional animation into different media with the support of vitalism, agential realism and affect theory, drawing on the philosophy of Gilles Deleuze, Jane Bennett and Karen Barad (among others) not just as philosophical underpinnings for the artwork, but as sources for visual and figural inspiration.

My research focuses on the space between drawings as a contextual and conceptual starting point. I use sequential drawings in traditional animation as instructional signposts – basic principles that can be grabbed onto in order to move past them into less-traveled territory. Through this exploration, the medium of animation may serve as a larger gesture, a device and as an initial illustration of this play at work in actual, conceptual and virtual environments. Artwork that suggests motion, that proposes alternative spaces or establishes polar coordinates or axes, engages our being and causes us to project a vital force onto and into a conceptual space thereby activating the sequence.

My art practice is situated in animation but seeks to test its limits and to go deeper or beyond, using it as a point of departure, in order to focus on the creation of conceptual space. My research (both material and theoretical) supports a range of media, whether sculpture, video, kinetic or static. In my work, I argue that the potential of an inbetween – of motion and space folding and unfolding and of becoming — can transcend disciplines, acting as a philosophical underpinning and methodology rather than simply as a phenomenon of perception or optical illusion. The animation historian Paul Wells notes that "Animation has the potential of all media and translates, rhizomatically across disciplines. In this way, animation can also be used as a philosophical tool." (Wells, 2008, 60)

The existence of homologies and a shared genealogy between these numerous philosophical and practical disciplines, informs my practice and my practice informs my thinking. My aim, in blending theories across disciplines as well as references to key practical texts is to demonstrate intra-action in the context of animation. By adapting a perspective that accounts for subjectivity as well as a blending of philosophies, the act of guarding the boundaries of disciplines becomes counter productive.

The artwork relies on a core reading (a first viewing) but also contains secondary information that relates to the underlying theory, formally addressing requirements of each and the inherent relationships that are suggested – there is meaning in the relationship of each piece to the next and in the position and proximity of the viewer. The work present in the exhibition considers alternate spaces, reflection, spilled light and navigable spaces within the gallery in recognition of this conversation between practice and philosophy and between theory and form.

The medium of animation is full of tricks and often full of joy and humour. It is also an illusionistic space that we enter into as a child. I advocate that animation may be used across disciplines in order to express space inbetween but I also advocate that animation not be stripped of its genre, story or humour completely. Animation is a multilayered concept, with each layer informing the one next to it, suggesting the shape, contour, and context of the other layers that surround it (as the first drawing of a character in a sequence informs the last).

LITERATURE REVIEW / THEORETICAL FRAMEWORK

ANIMATION AND THE APPARATUS

To begin the discussion of animation as a formal construct, I explore the development of animation as a medium and critical practice in order to illuminate what has potentially been lost in the folds. Critical thought surrounding animation is tied to that of the moving image and, more specifically, that of cinema – so much so that there exists a common assumption that they share the same point of origin, so it is important to explore the intersection of the two forms. The invention of the moving image is commonly attributed to Eadweard Muybridge, beginning with his studies in animal locomotion and its photo documentation (1878). These experiments originated from a bet on whether a horse, running at full speed, ever had all

four feet off the ground. Muybridge won the bet and proved that the horse did clear the ground, capturing it running in mid air as part of a sequence using an array of cameras equipped with a trigger and delay mechanism. With this experiment, he began a tradition of technological advancement that fed both animation and cinema, and continues to develop the photographic moving image (to great effect in both actual and virtual environments). Much can be said of Muybridge's contribution but it did not mark the beginning of animation; it was merely the advent of a core technology intersecting with a creative vision. The language of animation itself and its concepts were created much earlier, with the earliest pictorial evidence appearing in Paleolithic era wall drawings in the Lascaux Cave[2], which responded to the flickering light of torch fires, and in Classical Antiquity, appearing as sequential animated drawings painted on stoneware.[3] The evolution of this expression of animation, from the flicker of flame on a cave wall into what it is today (such as 3D, special effects, and virtual reality) continues to innovate, exposing and exploring new possibilities in this intersection. However, when analyzing a historical timeline such as this, questions arise as to what happened before the Lower Paleolithic era (with the use of fire as a tool) or from Lascaux until the industry of the moving image? Various apparatuses were developed over time (such as the Phenakistoscope[4]). However, the most important evolution was that of the language of animation, its vocabulary and a way of seeing potential for movement in multiplicities that advanced – manifesting early in the dawn of self-awareness, from an intellect that evolved to include and acknowledge the self[5]. The

[2] Drawings, predominantly of horses, were found in the Lascaux Cave and exhibited techniques or approaches to layering and multiplicity common to animation production (Azéma, 2012)
[3] Featured in the animated film *While Darwin Sleeps…* by Paul Bush (2004)
[4] The phenakistoscope was invented by Joseph Plateau in 1832. Muybridge continued to develop hand drawn sequences for the phenakistoscope through 1893. (sourced from images of original disks)
[5] This is a distinct and more fundamental level of consciousness than judging an animal or insect on its ability to differentiate a reflected image from a real figure and has no allusions to narcissism or its implications.

autonomic process of filling in the black, unconscious moments during the blink of an eye, became the conscious and conceptual task of illustrating multiplicities and their relationships.

The potential for animation lies in the necessity of the viewer to allow it to be a moving image. The viewer translates the image, filling in the space between two frames as they play, co-creating and co-animating the sequence, though this is an innate response, which does not present significant variation in the ultimate perception of a completed sequence. I refer to this autonomic action (one which occurs automatically and is rooted in the unconscious – such as breathing) as the 'animation reflex'[6]. The conscious and conceptual side of animation, the automatic side, is a referential and cultured skill that is partly innate and partly a learned practice.[7]

Walter Benjamin writes in relation to Muybridge that "in the sense that a space informed by human consciousness gives way to a space informed by the unconscious…we have some idea what is involved in the act of walking, we have no idea at all what happens during the fraction of a second when a person actually takes a step" (Benjamin 511). Animation has always been tied to its technology, locked to its mechanism (as walking is tied to our legs), crediting the flickering torch with the creation of motion, while failing to credit what happens between the flicker, shutter or blink as a function of our own consciousness. Just as physics and physicality (the body, the apparatus) play a big part in the mechanism of animation, there exists a far less explored level of metaphysics and ontological function at play that accounts for the involvement of our consciousness.

[6] This term is my own.
[7] The term animation reflex describes the act of animating the moving image, distinguishing it from what Gestalt psychology might describe as persistence of vision, beta movement or phi phenomenon. The animation reflex is an act rather than an experience.

Early in the industry of animation, pioneers such as Disney (Mickey Mouse) and Fleischer Studios (Betty Boop) separated animation from its photographic counterpart (cinema) and defined a genre of animation that is commonly referred to as cartoons. Importantly, they returned to the earliest rendered expression of animation – the line drawing, which was made using fundamentally the same process as the early practitioners in the Lascaux Cave. As the process of traditional animation (commonly accepted to be line drawing or stop-motion) was refined, a growing community of animators began to develop a vocabulary around their practice. Terms such as the inbetween, silhouetting, unfolding and pose-to-pose were used to describe parts of the animation process. The terms were a form of shorthand between animators and were not laden with philosophical meaning; to them, using an inbetween meant that an additional drawing was inserted in between two established drawings, thereby marking a midway point or a transition between the two keyframes. This gave smoothness to an animation and gave more defined information in a sequence.

The last century has exhibited a greater convergence between the language of animation and metaphysics. As philosophers, working in other areas such as vitalism, agential realism, affect theory, gestalt, and phenomenology, began to describe the fundamental nature of being, using complementary and intersectional terminology to animation (i.e., becoming, unfolding, diffraction or granulation).

The similar vocabulary shared by these disciplines can be described as a homology - denoting a shared ancestry or correspondence. With animation, its corresponding theories explored the same processes, paths and exchanges – bringing to light the inherent need to animate, to project life onto matter and to extend the understanding and reach of our ontology,

either by interfacing with the sequence by drawing frames and creating inbetweens (animator as creator, surrogate or proxy), or as viewer, filling the inbetween space with our own being. It is important to analyze animation with a language outside of its method. Additionally, it becomes clear that animation, as an expanded theory beyond its medium, must be explored through other media and through other forms, in order to be expressed fully. It is the language that is created through the interdisciplinary relationship of art, technology, and philosophy that makes the mechanism and conceptual space within animation possible.

The inbetween functions on a much higher level than a technical apparatus. The space of the inbetween or the gutter (in pictographs or comics) provokes the viewer to bridge the gap between drawings, reflexively completing the sequence or narrative or void that they are confronted with. I propose that, rather than acting simply as a placeholder with a function of registration, demarcation, and division, that this space inbetween may be a venue of expression, a conceptual space where the viewer may insert themselves, to extend themselves into and exist within.

Conceptual space can be thought of as a void which can be occupied by our identity and informed by our culture, historicity, and subjectivity. For example, when we animate across and into a void, we may initially do this without thinking (the animation reflex) - if Mickey Mouse moves across the screen, we perceive this as fluid motion where it is in truth, a collection of still images presented in succession. This engagement within the inbetween is an intellectual engagement and exists as a subtle, relaxed, latent interactivity. What is extended into this space is not a postscript or an appendix but new growth and new possibilities, as roots grow around obstacles and shoots force themselves through cracks in sidewalks, we force ourselves into conceptual space as an expression of our own ontology and epistemology.

ENTRY INTO THE INBETWEEN

Structuralism, as in linguistics and anthropology, uses binary oppositions as a tool intended to describe relationships within a culture or a system. Often by referring to objects or situations in two states (raw/cooked, culture/nature, sign/signified), structuralism seeks to establish a framework in order to build understanding. Binary opposition, poles, coordinates and positions in a given sequence are intended to describe points of entry (the frame of a door, for example). In animation theory, structuralism shares an affinity with animation's concept of the inbetween through this use of binary opposites. Structuralism, through its use of polar opposites[8], is accessible, accommodating and comprehensible and provides an easy entry point into the inbetween – if only to grab hold of the frame of the aperture (by two poles no less) and force ourselves into the conceptual space within. Binary opposites, and more specifically – dualistic thinking does have its detractors. Like most manifestations of thought, the immediate solution is equally central to one dilemma as it is to another solution. Feminist and STS scholar Donna Haraway writes in her *Cyborg Manifesto*:

> Certain dualisms have been persistent in Western traditions; they have been systemic to the logics and practices of domination of all constituted as others, whose task is to mirror the self. Chief amongst these troubling dualisms are self/other, mind/body, culture/nature, male/female, civilized/primitive, reality/appearance, whole/part, agent/resource, maker/made, active/passive, right/wrong, truth/illusion total/partial, god/man these dualisms are inherently oppressive. Through the hierarchical stratification of all individuals, they limit possibilities of subjectivity (Haraway 177).

The binaries recognized by structuralism and animation (first position/second position) in this context are extreme positions and boundaries, as are all opposing thoughts and forces. These binaries are polar coordinates and as they possess infinite multiplicities between them, they are

[8] In structuralism, binary contrasts or oppositions such as raw/cooked or male/female were used by linguists and anthropologists such as Saussure and Claude Lévi-Strauss among others. (Briggs, Meyer)

also part of infinite multiplicities themselves, between other binaries (this is the post-structuralism inherent in this practice). Where structuralism can be convenient and informative (by allowing for an entry point and a clear and concise relationship for analysis), post-structuralism allows for the diffusion of animation theory – allowing it to grow beyond its initial framework.

In semiotics, there are basic elements of language and meaning inherent in the sign. The sign is composed of the signifier and the signified. The signifier is the stop sign and the signified is the concept that you must bring your body to a complete halt. (Saussure, 65) What Saussure, a linguist, refers to as the 'value' of a sign, depends on its relations with other signs within the system - a sign has no 'absolute' value independent of this context, as a multiplicity is referential to its sequence, it is also produced independently through the subjectivity of the viewer (Saussure, 124). Signifiers offer sequential and spatial context and the signified offers conceptual context. In the case of animation theory, the drawings in first and second position stand as binary poles (our signifiers) and the conceptual space in between offers us the signified third drawing – which, thanks to *élan vital*, is provided as an extension of our self and our identity.

Animation functions by association but it is not strict. If the image or structure in the first position is that of a cat and the image in the second position is that of a mouse, then the image formed in between (as a morphological expression or a becoming of the two images) would share an association or information taken from each. Though language functions differently than images, the information communicated between signs and symbols is always informed by the subjectivity of the viewer.[9]

[9] I refer to Saussure in this paper rather than Metz in order to keep the discussion centered around language rather than the interplay of images.

Subjectivity plays an important role in the expression of the inbetween and in the movement from a structuralist foundation to the post-structuralist function of animation theory. Karen Barad's concept of the 'agential cut' describes the intentional divide between subject and object through the agency of the viewer. I see this interaction as analogous to the mechanism that allows animation to function. Through the agency of the viewer, they may differentiate which cut, fold or line they choose to enter. The agential cut describes the insertion of the subject into the object – in animation, this action allows us to remain between drawings, sequences or inbetweens (within the structure of animation) rather than immediately diffusing out into "any playground whatever" (429). It is the insistence on structuralism, on a framework of images in sequence or on a Cartesian proximity rather than defaulting to the infinite intermingling of bodies where animation begins, but not where it ends. There is a line that is drawn, a point that is marked or a hole that is punched into the façade where we gain entry into conceptual space. In animation, the inbetween/line/crease/shutter is the agential cut, the drawings on either side of the line are its structural poles. Karen Barad notes that "the agential cut enacts a causal structure among components of a phenomenon in the marking of the 'measuring agencies' ('effect') by the 'measured object' ('cause')" (140)[10]

Barad addresses the line drawn by the agential cut, noting that "a line between the subject and object is not fixed, but once a cut is made, the identification is not arbitrary, but in fact materially specified and determinate for a given practice." (155) I proposed that within both traditional animation and in expanded animation practice is the opportunity to find a line, the inbetween or boundaries. The agential cut is made by choosing two boundaries between which

[10] Hence "apparatuses are boundary-making practices". (148). It is in this casual structure where she begins but then moves to examine the diffraction within the apparatus. Barad states that "Diffractively reading the insights of poststructuralist theory, science studies, and physics through one another entails thinking the cultural and the natural together in illuminating ways." (Barad 135)

an inbetween is formed. Through our own agency, we determine where and when the experiment begins. Animation and conceptual space are experienced in the round and accessed on an unconscious level (autonomic) but cannot be accessed consciously without the knowledge that it exists paired with the trust in one's own perception.

In First Position . Second Position and within my practice, the aesthetic choices I have made exemplify the agential cut (I have made an apparatus which will express the inbetween in the context of animation). The inbetween is implicated in each piece in the way it communicates the line or cut and its latent interactivity with the viewer. This author/viewer relationship is an active conversation.

GENRE AND ANIMATION

What is being enacted in my work is not experimental animation – it is animation without genre, the fundamental (elemental, primordial) structure of animation. In *Night of the Hunter,* an animated candle, shown floating on a river, is continually extinguished and relit. This candle was animated as both a suggestion of narrative and genre as well as a representation of the flow between two states — referencing a river scene in the Charles Laughton film of the same name. In the scene, two children float down the river and through a mythical landscape, passing from a nightmare, into a dream world and then returning to reality. The story invoked by the title is a play on the aforementioned scene but also a nod to the intentional layering of genre or story onto a piece which is meant to illustrate a fundamental and structural relationship in animation. The repetition of the candle extinguishing and relighting calls attention to the changing states of light and narrative, where the flame sputters and dies, or sparks and comes to life.

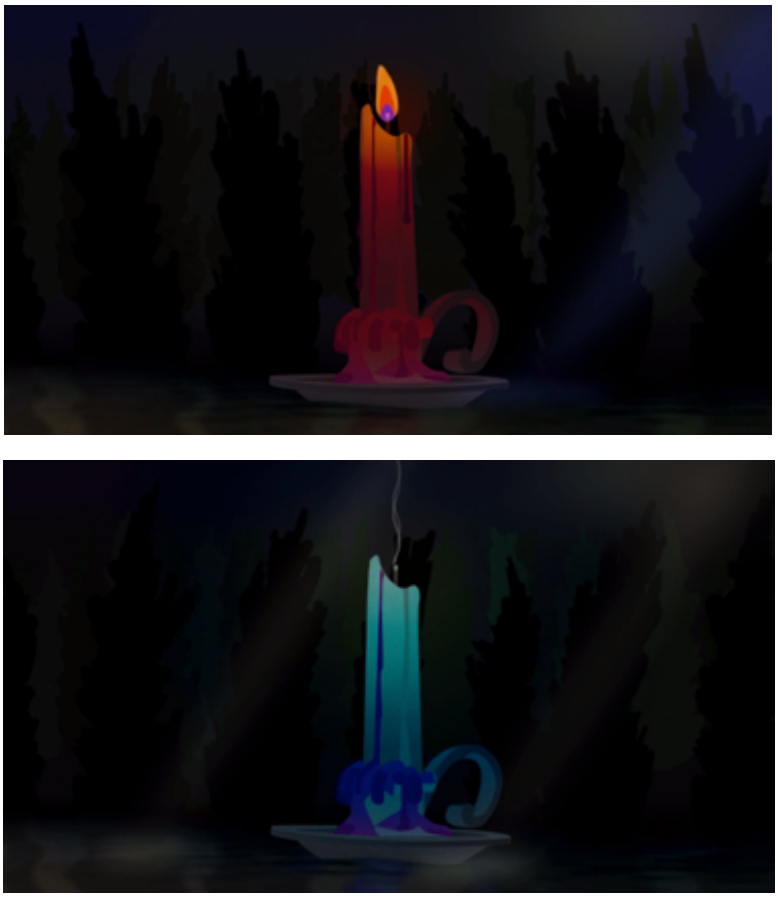

*Figure 1 Night of the Hunter 2016 (HD Video, Match, Acrylic, Bell Jar) *video still*

The companion to this piece, the charred remains of a wooden match preserved in a bell jar, lends a dimensionality to the candle animation. By introducing this additional element to the candle animation, the piece is drawn out of the monitor and to the other side of the hall, crossing over from virtual space into actual or real space. This illustrates how my artwork functions within the exhibition, showing how the concept of animation and the function of theory can be expanded beyond the media (by establishing clear, initial contrasts or by introducing tensions through opposing positions).

*Figure 2 Night of the Hunter *detail*

VITALISM AND AFFECT IN ANIMATION

Animation is not a result of a failure of cognition but is an expression of our own being, projected onto and into matter. Animation can be applied to matter involuntarily (as per the animation reflex) but also consciously, through concentrated effort, intellectually recreating the effect of motion in seemingly static sequences (or in sequences at rest). Jane Bennett's *Vibrant Matter: A Political Ecology of Things* (in which she ties her interests in metaphysics to the humanities and ecology through the introduction of life-force), addresses the animus at the root of animation by employing the theory of French philosopher Henri Bergson. Being highly concerned with the division of life and matter, Bergson proposed *élan vital* as a critical response to Mechanism (Bennett 77) which problematically required that every living mechanism (plant,

animal, etc.) be explained by the laws of motion, analogous to a machine. *Élan vital*, however, was the non-permanent force that was bestowed or projected onto assemblages in order to allow machines (or, by extension, cells/body/ecosystems) to function. It is understood that an animation is not alive in itself (no one called the army when *Steamboat Willie* screened for the first time), so one might turn to either Mechanism or to the viewer as sources for this vital force (or *élan vital*). Bergson maintains that "*élan vital* self-directs as it flows, dispensing itself without losing any of its force" (132) and that the vital impulse is "drive without design, a searching that is a 'groping'" (61). The vital impulse or animating force (animus, anima) that we project onto objects, sequences, and assemblages can be explained through this inexhaustible projection of life. *Élan vital* is a phenomenon that acts both in perception (as in gestalt) and in ontological explanations (as in animation). When a face on the moon is seen, gestalt is at play, anthropomorphizing the pattern into a recognizable form. Similarly, when a sequence is viewed, *élan vital* is projected into the inbetween, bringing the sequence to life, animating it into a complementary and cohesive whole. It is a practice that we are habituated to, performing as a matter of course.

There have been encounters with different systems of animation in philosophy, namely Entelechy (Aristotle), Bildungstrieb (Blumenbach), *Élan Vital* (Bergson). These terms all describe an energy that is applied to an object, body or system which motivates it or gives it life. In animation, it is clear that a sequence has been translated from a material (still, lifeless matter) into something perceived as lively or in motion.

When the animation reflex occurs, the viewer engages with something that is naturally befitting to animation. In sequential animation, the cut or fold between frames or drawings in animation is something which draws our attention, providing an opening for this groping vital

energy to grasp onto, permeate, occupy and then animate. The opportunity to engage with this vibrant matter is sensed unconsciously. What draws our attention to these objects or sequences? In *Vibrant Matter*, Jane Bennett refers to this as "thing power" (3) and attributes this to the agency of objects, while Seigworth and Gregg might refer to this uncanniness as shimmering.

Although the animation reflex might activate a line, strobe, sequence, or crease, then occupy and animate it, there are also situations where animation may occur consciously as a practiced technique, offering productive and informative relationships with other systems. A row of houses might be seen as a block, but with further engagement, going beyond initial/rapid perception as if it were viewed from a speeding car, the block becomes much more permeable. Doors, alleyways, paths and windows, are discovered. This further engagement is a conscious act of slowing down and concentrating on the form, grid or matrix of structures. With concentration comes animation. By deliberately searching for breaks or creases in the façade of buildings, points of entry are discovered in what is otherwise a solid wall. As with any structure, it is our agency that permits us access to the space within.

Figure 3 "Mid/dle" 2016

My photograph *"Mid/dle"* is an illustration of urban granulation, the word middle having been spray painted onto the two buildings as a sign or a direction, as though it is saying "enter here". As soon as points of reference established, spaces in between them are established as well. In the photograph, two buildings are shown with a significant division in between acting as a line or divide that cleaves the image in two, through which conceptual space may be entered by consciously prying the image and space apart, translating and bridging the forms from one shape to the next.

CLOTH AND THE SCREEN

Cloth, is a woven or knit textile, but it is more than that. Cloth is a grid, a matrix, a shroud, a covering or a façade. Cloth as a matrix composes the exteriority of surfaces, hinting at their interior form or bodies through draping and folds. Cloth is both revealing and obscuring. This quality is shared by other matrices such as video (a matrix of pixels), skin (a matrix of cells), city streets (a matrix of houses and addresses) and animation (a matrix of apparatus and genre or of frames and inbetweens). All represent an exhibited exterior with obscured interiors. Gilles Deleuze wrote *The Fold,* an analysis of Leibniz and the baroque, discussing interiority, folds, and pleats in baroque costume and architecture. Deleuze defines baroque, most notably, as "the severing of the façade from the inside" (29). Animation also does this in many ways, wherein the function of animation is usually separate from the genre or subject of the animation. In animation, matrixes are composited on top of each other, linked by their proximity and association – just like the folds or pleats of a cloth are independent of one another, but remain associated to the body or form which it covers. The form of cloth is distinct from the body which it covers; Just as a coat assumes the shape of a body, the body within is formed in a much different way (i.e. that which lends its shape to the cloth is a separate and distinct entity). In the

medium of animation, the exterior or façade is its story, image, subject or genre (a house-mouse runs from a cat, the Kool-Aid man whistles at children) while the interior is that of conceptual space (a space where one may project identity, self, and vital force, animating the fundamental matter of the cartoon). These two levels, the internal and the external are both simultaneous and discreet. They inform the shape of each other but one is implied and the other is explicit.

Using cloth as a representation or as analogous to a form of animation is helpful in illustrating the relationships between interior and exterior and the divisions between bodies and their proximity to one another. This applies directly to the behavior of fabric and its own diffraction – flattening, curving and receding – where our bodies can exist between the folds or the inbetween space. This is the link between the baroque/the fold and the inbetween.

Georg Friedrich Bernhard Riemann was a mathematician who was heavily involved with topology, hidden layers, and dimensions. Riemann, obsessed with crumpled paper and its multi-dimensional possibility, developed an equation to express and describe hidden dimensions within a fold, crease or crumple. Riemann's equation illustrates this creation of space, where hidden dimensions exist within the layers of the crumple. The same exists for baroque folds in cloth and the cut made between frames of animation.

A significant cloth-based piece in the exhibition entitled *Punctured Drape* exists in both 'flat' space and in three dimensions – crossing between actual and virtual environments. The fabric is pressed flat and held stiff through internal interfacing. The brick pattern on it, reminiscent of a wall, is loosened and allowed to hang and drape. The depth, an expression of optical patterning, suggests a body or shape within. The body or form suggested by the drape of the cloth communicates the inbetween/conceptual space within the folds. The fluorescent bulb acts as a spear, pierces the form and locks it in space in a state of immanence rather than

transcendence while glowing from within. The punctured frame is a point in time, held on a plane, existing, remaining and never fully transcending. Andrew Culp, in *Dark Deleuze*, states that "folding is movement" (763), where unfolding is creating and releasing energy while folding is creating spaces. Cloth and video both may collapse and expand to fill a space or fold inward upon themselves.

In addition, *Punctured Drape* seeks to address conceptual space and the inbetween from a Cartesian perspective. The viewer interacts with the piece in the round, engaging the coordinates and proximity at play in animation, as the viewer may orient themselves with either depth or with flatness.

In an effort to communicate perception and dimension, Esprit Jouffret coined the term t*ranche infiniment*, or "infinitely thin slice," to describe planes that exist in two dimensions rather than three (Ferry 212). This slice was meant to suggest that an individual may only

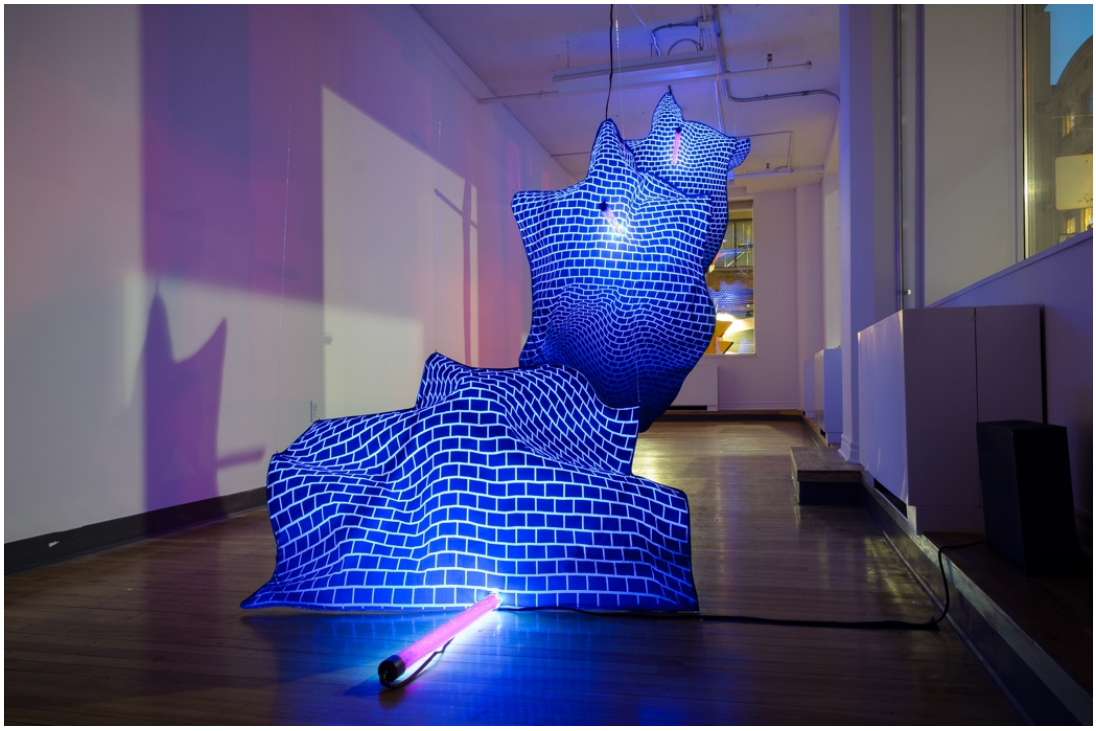

Figure 4 Punctured Drape 2017 Printed Cotton, Interfacing, Fluorescent Bulb, Ballast **documentation by Eric Chengyang*

experience dimension from certain perspectives, or dimensions which they occupy, the rest being theoretical interpretation (recalling the story of the square in *Flatland* by Edward A. Abbott). The flat side of the punctured drape becomes less visible when we are off axis or out of place (e.g. not diffracting or existing outside of conceptual space).

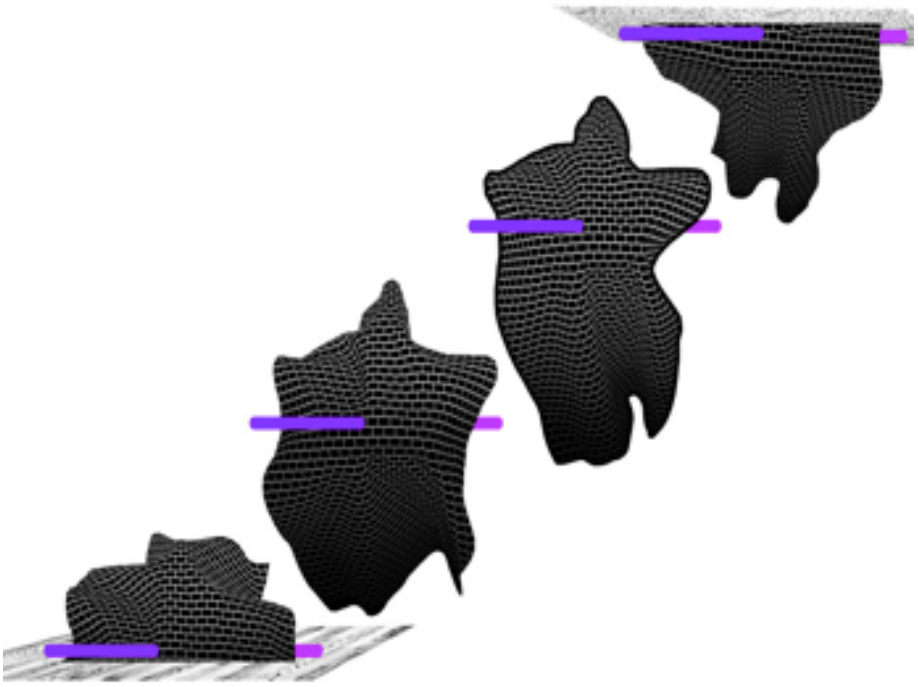

Figure 5 Study for Punctured Drape in Sequence 2016

The baroque folds inherent in fabric also represent the screen, or the aperture, providing both boundaries and possible points of entry. In *The Fold*, Deleuze asks, "How can the Many become the One? A great screen has to be placed in between them. Like a formless elastic membrane, an electromagnetic field…the screen makes something issue from chaos, and even if this something differs only slightly" (77). If the screen is our access point through the matrix of cloth, we can easily find more homologies to video and animation practice. Just as the screen of

video is black, once we engage the screen, once the light is unsealed, we are offered not simply all of the colors but all depth and dimension inherent in conceptual space. Multiplicities exist in many iterations within the fold, and translate from one to many and back again, where one screen becomes thousands of pixels and one scene or motion becomes hundreds of frames, each with a cut or fold between them, waiting to be illuminated. The agential cut finds its place here as each viewer would approach each fold in a different way, with a different apparatus, informed by a unique identity, value set and points of reference.

Critic and theorist Rosalind Krauss, in her paper *"The Rock": William Kentridge's Drawings for Projection*, calls upon Benjamin Buchloh's matrix as a fundamental form of drawing (along with the grapheme). It plays an essential role by dividing drawing into subjective and objective constituents. While providing an exterior surface, it also provides infrastructure, as we perceive space and volume within the folds of animation. Buchloh notes that "whether grid or concentric structure, the matrix serves not only as the emblematic residue of those systems of projection, such as perspective, through which the objective world of three-dimensions was formerly traced, but doubles and thereby manifests the infrastructure of the aesthetic object itself (the weave of the canvas, the armature of the sculpture)" (Krauss 113). The matrix of cloth and the matrix of video are easily adapted to compositing and to layering. With cloth, we layer the body, but with video, we layer space and environments over each other – layering conceptual space, over virtual, over actual. The allusion to other dimensions within the folds or matrix of video is clearly illustrated through telepresence or television in both its image and mechanism, between frames and image, which flow in multiple dimensions or becomings as they are uncovered and examined. The space and tension between the layered matrices also create binary

contrasts, or first and second positions, between which lie new possibilities for the inbetween/conceptual.

The screen as a metaphor is used throughout First Position . Second Position, appearing literally (in *Aspect Melt* and *Light Aperture* and the various monitors) and figuratively (in *Punctured Drape* and the *Unfolding* Series). *Aspect melt* addresses the screen most literally as the frame, in the 16x9 aspect ratio of HD video, melts into the floor, its image flowing back into itself as a reflection, creating a line or fold between dimensions. The projected RGB images flow into the center line much like the image of fabric feeding into a sewing machine.

Position and point of view are also important considerations in this piece. The shape of *Aspect Melt* is drawn in forced perspective, optically compressing and receding through foreshortening, its volume changing according to the proximity of the viewer, its shape fluidly transforming and distorting as the viewer moves from one vector to the next.

Figure 6 Aspect Melt 2016 (HD Video, Acrylic, Projector)

GRANULATING TIME IN ANIMATION AND BECOMING INTENSE

Granulation of time (space and other dimensions) and the quantizing gradients from smooth slopes into a navigable path is a necessary step in the creation of the inbetween, in all media. If an animation loop is playing, slowing it down to one or two frames per second allows us to perceive the divisions between frames quite clearly, as the animation reflex is not as dominant in this situation. If we see a smooth gradient, one conveniently reproduced for us on screen, the differences in tone from lightest to darkest are sometimes quite perceptible quantized or separated into bands of color, scaling in brightness from one point to the next. Visualizing the gradient through the screen, we are again able to differentiate these bands quite clearly and are able to identify the inbetween. The tool does not create the inbetween but merely filters the information in order to allow us to process the image. If the same gradient were to be expressed as an equation, the same steps or differences in tone would exist but would be infinitesimally smoother, making a structural comparison harder to establish. The tools at our disposal are not simply visual, however, as positions or contrasting poles are easily found through intellectual reasoning, logic or a comparison of points of reference.

Karen Barad has said that the overarching trope in her work is that of diffraction (29). This diffraction is a manifestation of visible light or a representation of granularity inherent in both animation and physics. We see these diffractions macroscopically as sedimentary planes rather than smooth gradients. In physics, diffraction, in order to be understood, is materialized into a spectrum using a diffraction grating. The grating may take the form of a glass prism, an equation, or if we apply structuralism, the acknowledgment of a containing principle or polar coordinate; the tool is of our choosing. This tool visualizes a wave (light, water, sound, etc.) as multiple bands, each separate and discreet from its neighbor. “It is a well-recognized fact of

physical optics that if one looks closely at an ‘edge’, what one sees is not a sharp boundary between light and dark but rather a series of light and dark bands – that is a diffraction pattern” (Barad 156).

Diffraction is not movement but a granular representation of movement. When an electron jumps from one atomic orbit to another, it gives off a specific color and doesn’t slide through a gradient of tones. The color it produces is a singular and discrete band from those around it, as in the chromatic scale in music. Depending on the apparatus we use to observe it, we are afforded smooth variations in color (when we occupy the space inbetween, per animation) or bands of color (using a diffraction grating).

Figure 7 Unfolding 1,2,3 2016 (Giclee Print)

The series of drawings entitled *Unfolding* addresses this concept of diffraction in animation as well as, in its title, the homologies in terminology. The images represent animation occurring in a single frame, in stillness, relying on the viewer to compel the images to life. The images combine elements of animation theory in order to serve as an experiment or test. They necessitate a subtle interactivity with the viewer in order to make them function, however, the

viewer completes the pieces through proximity and observation. The frames within the image are displayed all at once, not in a gradient but in a pattern of diffraction, clearly exhibiting spaces in between.[11]

In “Becoming Intense, Becoming Animal”, a chapter in *A Thousand Plateaus*, Gilles Deleuze and Felix Guattari introduce their interpretation of Bergson in relation to sequences or multiplicities. They struggle with the relationship of becoming and its place in either structuralism or post-structuralism and posit that a sequence involves “a multiplicity" (239). The same could be said of animation and its dependence on a sequence or on a plurality of frames or positions. Animation moves through a sequence in time, but it is not an evolution. Animation is a becoming and can happen in any direction. Deleuze and Guattari state that "multiplicities, continually transform themselves into each other, cross over into each other... Becoming and multiplicity are the same things. A multiplicity is defined not by its elements…It is defined by the number of dimensions it has" (249). One of these dimensions in animation is time, which can easily flow backward and forward (as we can play a sequence in a media player both forwards and in reverse).

Animation is composed of frames, or a granularity of time, presenting itself as a multitude of diffractions with conceptual space inbetween each frame. Though we may experience time and movement as a continual flow, the singular can emerge from “any-instant-

[11] This discussion is not solely predicated on animation being a frame-based medium. A computer and algorithm can be used as an expression of animation just as Sol LeWitt’s instructions may function as the source of an image in conceptual art. The relationship between the two forms is intertwined: the existence of the instructions suggests the existence of an image, where the exterior of one is draped over the body of another. Animator Larry Cuba remarks that “if you think about the process used in abstract information, it doesn’t become important that you’re using a computer, in a way to fix your vocabulary. Because it is mathematical structures you can discover imagery that you’ve not pre-visualized but have found within the dimensions of the search space.” (qtd in Wells, 2000, 33). The algorithm is a pre-visualization, an instruction, a guide or a map, one that offers opportunities for animation rather than precluding it; it only changes the fixity of its structure.

whatever", per Deleuze's application of Zeno's Paradox of the arrow[12] to explain the granulation of the movement-image of cinema. According to Deleuze, "The any-instant-whatever is the instant which is equidistant from another. We can, therefore, define cinema as the system which reproduces movement by relating it to the any-instant-whatever." (Deleuze, 1986, 6) The any-instant-whatever is more than just the frame; it is a moment of consequence, a singular moment. This consequence does not denote importance but simply a state of being or a privileged instant. In animation (devoid of genre or mythologies) any-instant-whatever or the privileged instant comes at the moment of becoming or within the inbetween when the self or the identity of the viewer is inserted between the frames in order to facilitate movement. This is not the false movement of a character traveling across the screen, but rather the morphing from one state to the next, or the water that 'occurs' between ice and steam[13].

METHODOLOGY

Working through animation methodology and examining the potential of conceptual space led me to investigate other theories that interrogated interstitial spaces and ideas of comparison. To practice animation means to engage with terminology (such as silhouetting, pose to pose, secondary motion) that overlaps with both structuralism and vitalism. In this sense, I am posing animation as a *method* that can operate through a common and popular medium, thereby

[12] Zeno's paradox of the arrow describes an arrow moving in instants – or rather motion at an instant. Zeno's paradox was developed to attack the concept of continuous time and motion. (Dowden)

[13] Kevin Fisher refers to this as the tesseract of animation in his paper "Tracing the Tesseract: A Conceptual Prehistory of the Morph" (107). The tesseract is the inbetween, the any-instant-whatever or the movement between states. Fisher's example is that of the waterfall, in that it only exists as water flows through it from one state to the next, crossing from one privileged position (high) to another (low).

making the concepts available and accessible. Through the framework of animation methodology, I position my arguments within a specific conversation, one that both relates to animation as a practice.

I question the possibilities of animation itself and its implications (as a fundamental process) rather than the possibilities of the underpinned, high-level construct or facade of story, narrative or genre. Animation as a methodology has offered a multitude of possibilities, and developing a framework around it made it a relevant tool for use in my studio practice.

In developing animation as a methodology, I look to others who have worked through Deleuze, focusing on the nature of being (inclusive of immanence, transcendence, and becoming) while engaging with positivist data. I work through machinic assemblages, where "theories are combined in order to produce something new" (Coleman 43).

Animation methodology imposed a set of controls or requirements for my work that would open possibilities of animation across other media. Because my use of animation as an expanded theory has applications beyond traditional animation practice (as opposed to methodology or this particular theoretical exploration), it was essential that my studio research address different modes and media, experimenting with a range of possibilities of expressing and explaining animation theory in various contexts. In *Cinema 2: The Time-Image*, Deleuze commented that "theory too is something which is made, no less than its object" (268). It was for this reason that it became important to develop work in studio that would function as individual experiments or instructional elements that could work through these new perspectives on animation. I was seeking to create the object of my theory. I wanted the work to command the attention of the viewer, directing them to core concepts of animation theory such as the aforementioned inbetween, to binaries and to interior and conceptual spaces without becoming

too literal or limited in scope, as this would compromise the integrity of the work, disengaging the viewer rather than maintaining the experience of the exhibition.

I believe that animation, within a studio practice, requires certain elements to be present within a piece, and to exist on a conceptual level. Each piece was intended to function as an individual experiment and seeks to communicate the inbetween, conceptual space and other facets of animation in a way that implicates the viewer as a participant with the work. The ways that animation and conceptual space are expressed in my practice include: working with binaries such as inside/outside, actual and virtual or rational and sensuous (per Eisenstein). I also examine conceptual space through the layering of virtual matrices over actual matrixes in order to construct a relationship created in between the two forms.

My role in this research is not simply that of a technician or facilitator. My art practice is very much codified in the same structural and binary way in which I see animation functioning. One side of my practice is intellectual and logic-based, where language, philosophy, and grammar play favorably. On the other side is a method of art production that is equally laborious and meditative. My practice engages my intellectual and emotional selves as well as the self that exists between those two modes, making animation methodology an equally self-reflexive and positivist methodology, at times existing in different intensities. Data collected in this research is ongoing and iterative. Each piece seeks to explore the idea of conceptual space from a particular angle while working within the limits of its methodology. It is important for my process to investigate the limits of expanded animation as a practice and see what insight might occur via these different perspectives.

Iterations of animation methodology are inexhaustible as its applications are exponential and may be applied to research across disciplines. Animation methodology is not limited to

aesthetics or to the examination of an iterative art practice. If one can identify any subject and identify two polar coordinates or constraints which frame or define the subject, then animation methodology may be applied.

PRACTICE / EXHIBITION

The Inventory of the Exhibition Is as Follows (listed in alphabetical order):

"Mid/dle"	*photograph, 2016 24"x36"*
Aspect Melt	*acrylic, HD video, projector 2016 44"x48"*
Eye Roll	*MDF, acrylic paint, resin 2016 five panels, 18"x36"*
First Pos. Second Pos.	*felt, beans 2016 2 lines 18"x96"*
Light Aperture	*acrylic, fluorescent tubes, ballast, Arduino, reflective fabric 2016 4'x4'*
Neon Fence 1+2	*steel, felt, neon, glass, and plastic mirror 2016 4'x4'*
Night of the Hunter	*match, bell jar, CRT video monitor, HD video, sandblasted acrylic 2016*
Punctured Drape (Seq.)	*printed fabric, ballast fluorescent light, 2016 48"x72" (four panels)*
Three Sheets	*wooden plinths, CRT televisions, HD Video 2016*
Unfolding 1,2,3	*giclee print, frame 2016 each 36"x36"*
Wind	*sound installation 2016*

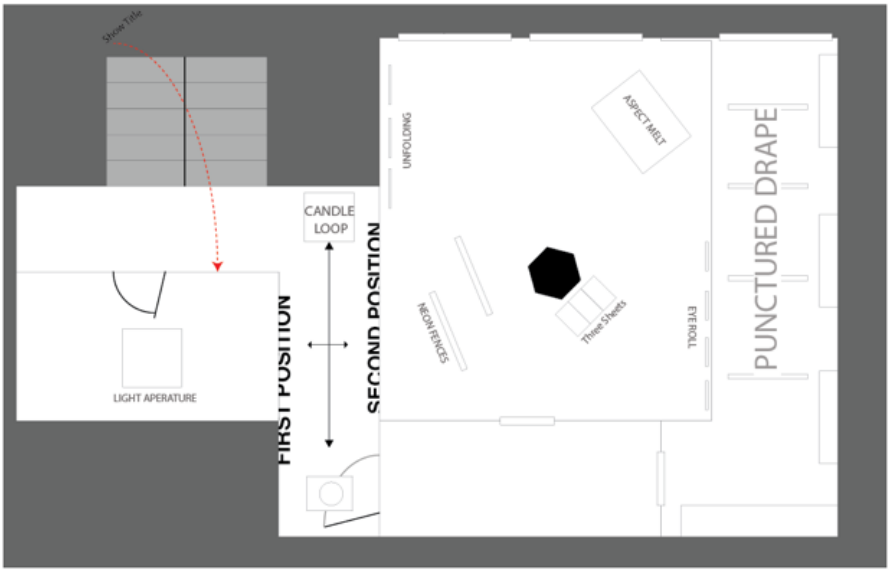

Figure 8 First Position . Second Position Floor Plan 2017

First Position . Second Position was conceived as an exhibition rather than simply as a collected body of work. Each piece approaches animation in a different manner and questions how we access the inbetween of animation and the conceptual space offered therein. It was important that the exhibition feature work that resembled animation and was able to problematize the medium. It was vital that the work investigates animation in the context of animation itself – seeking to engage viewers with the softness and humor of the genre of animation in order to contextualize it. Genre must be divided from animation, but to eliminate all possible representations of form, genus or classification would feel isolated and cold. It is important that animation continues to be informed by its dominant sign – that of the cartoon in order to maintain its context and also its humour. It is not integral that the viewer or participant be aware of this complexity of the underlying theories of the show, but the trace remains and may shimmer or vibrate differently from one viewer to the next. The exhibition occurs in four rooms and is tied together with an environmental soundtrack. Fluorescent light also bookends the exhibition and the sound of wind blowing from room to room links the pieces together, texturizing the space of the gallery, causing it to be considered along with the work on view.

*Figure 9 Blowing on Candle Piece * Photo by Eric Chengyang*

Much of the work in the exhibition was designed to be architectonic or to intersect or engage with architecture, to either bend light around a corner, force it through an aperture or have the piece physically divided by the walls of the space. This was done in order to project the sequences further than the limits of the gallery – to extend the pieces (infinitely) along their axes.

Light Aperture features a series of fluorescent tubes configured into the dimensions of a 4x3 aperture, screen or monitor. The lights alternate between off and on positions, forming an animation that leads the eye of the viewer to the central fold or crease of the piece. This piece proposes the idea of the inbetween in the same way as *Aspect Melt*, where a fold or crease in the center of the piece is intensified through the animation of light.

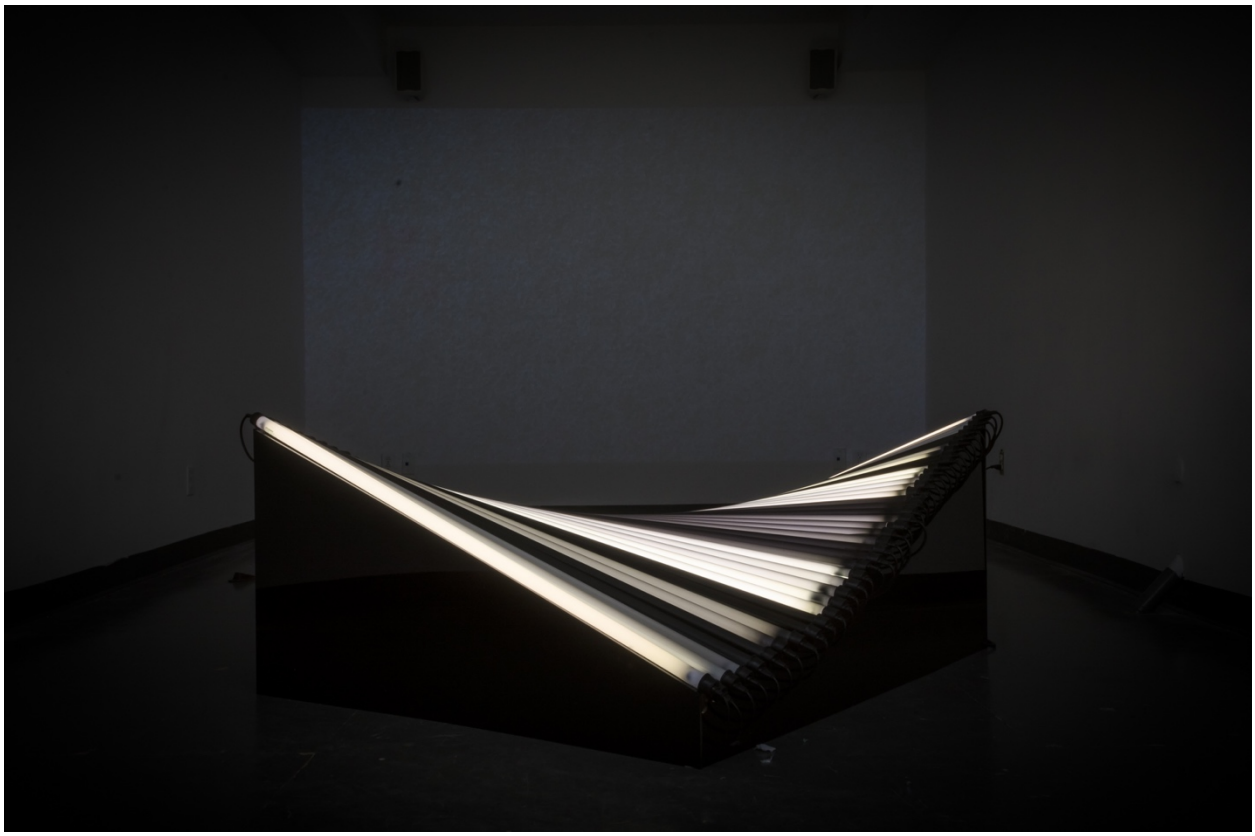

Figure 10 Light Aperture 2016 *documentation by Eric Chengyang

The material representation of my practice engages the viewer in 'real' space rather than strictly in the simulated or virtual space of video. The materials used in my practice range from traditional animation and video to plastics, textiles and found or natural material. The surfaces of these materials play a large role in their selection – namely their texture, reflectivity and their ability to receive or withhold light. The interplay of these textures blends my work together, meshing video and screen on top of each other, layering matrix over matrix and fold over fold, gathering lines into a crease or meditating on a move from one state to the next as a candle is continually extinguished and relit. Much of the work was conceived or planned in digital environments and then given form through printing, projection or CNC and laser cutting. There is a translation that happens in the work at a central moment where the form of the piece is flipped inside out, with virtual space now occupying an internal position. The lettering on the floor (*First Pos. Second Pos.*) is a perfect example of this flip happening. In construction, the

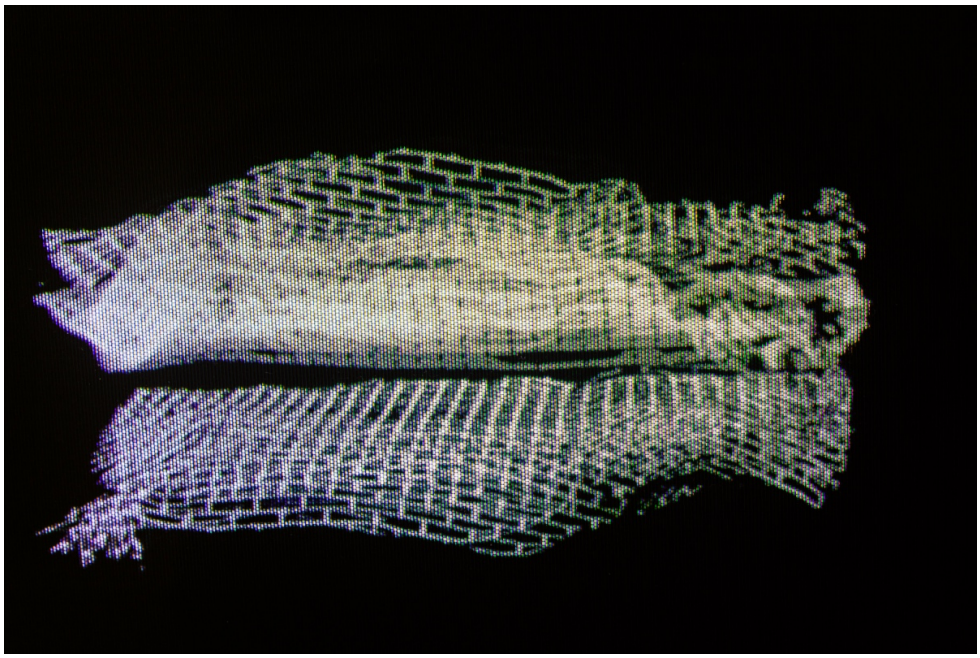

Figure 11 Three Sheets SD Video, CRT Televisions 2016

letters are sewn inside out and then, through a tiny hole, the fabric is forced into itself, effectively inverting its space (with the layers now separate), reversing the actual outside and the virtual inside.

The use of cloth, video, digital printing and grid patterns through the exhibition follows the theory of the fold and the idea of layering matrices upon each other that composed much of the animation theory I was working with. The piece *Three Sheets* reworked the folded brick pattern of other pieces into looped video of layered, blowing animated cloth. Two small monitors sit on two raised plinths, which are joined in the middle. The two loops are offset, playing in different patterns on each monitor. The slight discrepancy between the two sequences causes the viewer to look from on monitor to the other, searching for the differences between the two images. While the viewer does this, they stand directly inbetween the two images, forming a circuit between the images, acting out the inbetween.

Figure 12 Neon Fence 1, Neon, Steel, Felt, Mirror 2017

The potential of the matrix also exists in *Neon Fence*, where we see light (neon as rope) draped over cloth, and over metal hoarding, itself a grid of four-inch squares. The fences require that the viewer move between them, occupying the space inbetween and imagining the translation or animation from one position to the next. The lines of the neon suggest architecture, (recalling Dan Flavin's *Monument for V. Tatlin* 1968) but are draped over the top of metallic hoarding, a potentially destructive gesture for neon which would burn out and crack if it were not for the weave of felt supporting it. Neon is an invitation (a blinking sign) and hoarding is a separation (either for safety or security). *Neon Fence 1* and *2* are parallel and are offset from each other. The space between the fences asks the viewer to stand inbetween, occupying the internal space of the piece, becoming part of the exhibit, as an individual in a dangerous place.

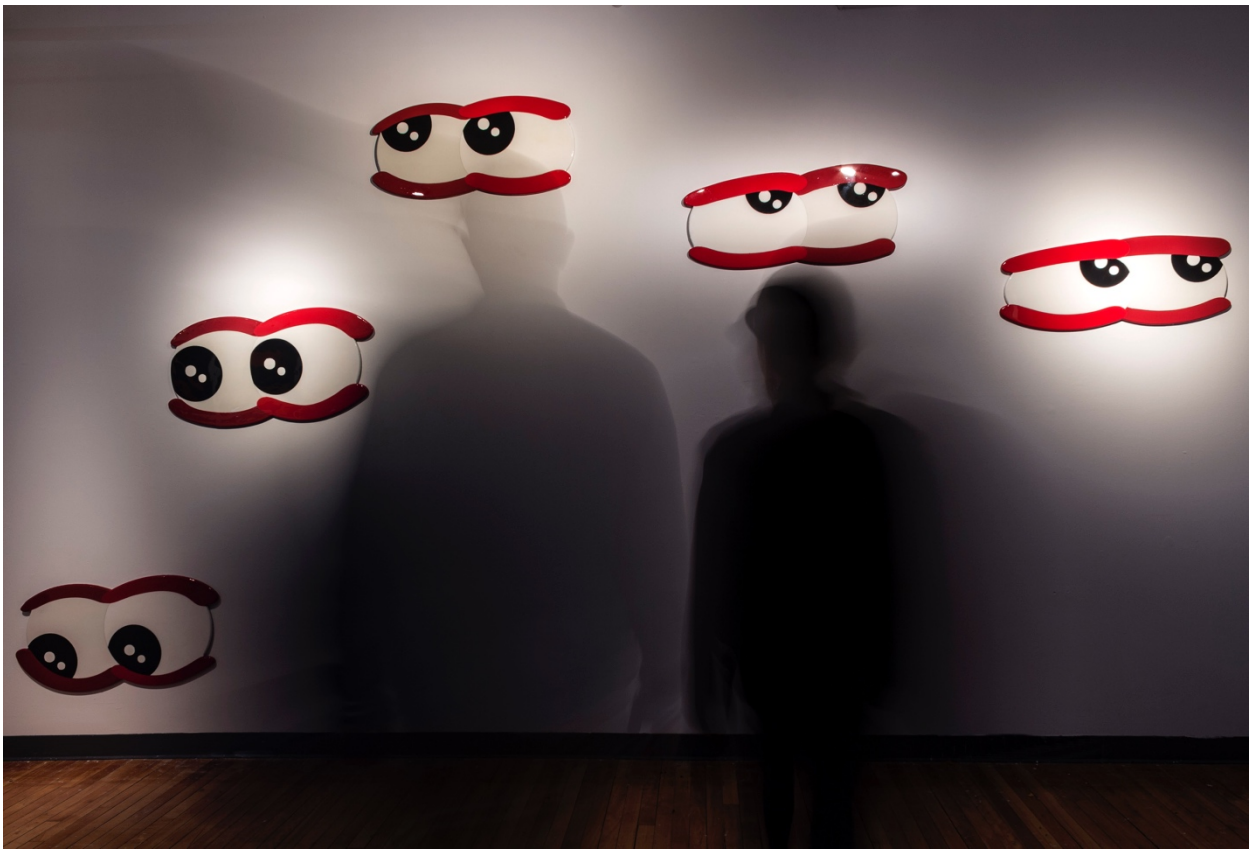

Figure 13 Eye Roll 2017

At the base of the fences, we see a cut 'spill' of mirror in a shape echoing *Aspect Melt* (fig. 14) on one side and broken shards of mirror on the other. The reflection of the work is drawn into the mirror, extending the dimension of the piece below the floor of the gallery.

Eye Roll (fig. 22) plays with the idea of sequence and the drawings on the walls of the Lascaux Cave and asks the viewer to move through the piece, performing the animation as their own eyes roll while observing the sequence. The installation of *Eye Roll* is in accord with the curve of the rolling eyes, causing the viewer, as their eyes follow the sequence to roll their eyes in turn. The function of this piece does not illustrate the metaphorical inbetween but presents a sequence that the viewer unconsciously performs in tandem with the drawing, creating the inbetween as a consequence of viewing the piece. *Eye Roll* is flatly shaded, reminiscent of Sunday comics or frames of cel animation, reintroducing the warmth and familiarity of genre into the cold blackness of the darkened gallery.

CONCLUSION

First Position . Second Position reframes animation into a context outside of the industrial practice of animation (animation as cartoon production/animation as labour). The development of the exhibition and its corresponding theory provided the setting for animation in a greater philosophical context, one that is based on homologies with other foundational theories (such as vitalism, agential realism and affect theory) as well as the aesthetic considerations that encompassed the range of media used in the exhibition.

When a viewer stands in front of *Aspect Melt* or inbetween *Neon Fence,* they are in a set relationship to the artwork, inserting themselves between structural poles, positions or binaries. In *First Position . Second Position*, the viewer completes the work by causing it to animate. Without their own *élan vital*, the work is merely a structure and is not afforded its own life or movement. Without the viewer, a sequence is merely an assembly and a sculpture is simply matter. The concept that the viewer completes the work is vital to the function of the exhibition.

The exhibition draws the connection of animation to cuts, cloth, folds and matrices that play in actual, conceptual and virtual environments across a range of media as animation, whether it is sculpture, video, kinetic or static. Thinking through expanded animation, through expressions of cloth and video, provides opportunities to visualize the morphological properties of animation as becomings rather than simply an optical trick of the eye.

Optical sleight of hand is certainly a large element of practice but the method and theory gave me a very different approach to it. Instead of focusing on the moiré of video and ben-day dots of print, I was able to focus on the spaces inbetween images or forms, concentrating on the negative space of an image, sequence, structure or body rather than the representation of the image itself. In drawing out this conceptual space, I draw the viewer into the work.

My thesis research began with an investigation into the inbetween, traveling into the possible implication of the inbetween in interdisciplinary applications across media. The theory and the exhibition are meant to provoke engagement, insisting that animation is a usable and plastic theory with great and diversified potential.

In addition to the inbetween and through other terminology (unfolding, silhouetting, pose to pose), we (as viewers, readers, and practitioners) can focus on our own subjectivity and how we interact with systems around us, maintaining the position or practice of animation's high critical standard. The amalgamation of practice and theory and the interdisciplinary nature of the exploration allowed this new knowledge to form, addressing ontological concerns and allowing for animation to be extended out into the realm of thought and philosophy. Animation as an ontological theory is versatile and malleable, possessing a range of applications that extend rhizomatically, using structural opposition but allowing for flow and deconstruction. The structural poles that this theory uses are not binding but offer support, utility, and accessibility simplifying the process for its practitioner.

First Position . Second Position examined interior spaces, creases, and folds and sought to open the medium of animation to greater purpose, to rip it away from behind the veil of cinema, allowing it to exist within a unified and fundamental philosophy. This project draws connections between the proto-cinematic/cinematic medium of animation and the ontological metaphysics of Gilles Deleuze and Karen Barad, resituating both the medium and the philosophy, into a theory and methodology that expressed animation as an important and necessary form of expression both on- and off-screen. It also expanded the possibilities of animation into cloth, architecture and beyond – into the city, the neighborhood by intersecting with architecture, bending around its structure, offering possible trajectories that animation might

take or situations where it might apply. We see the fluorescent and neon light in the exhibition acting as animation, diffracting around the edges of the building in sequential bands of light rather than living gradients.

The exhibition is an experiment, an illustration, a sign and a signal. The folds, creases, and cuts in *First Position . Second Position* aim to be approachable and interactive and suggest affinity or kinship with animation, both as a medium and within this theoretical context.

I am advocating for animation as a way of seeing, not just in my own work but for others to incorporate into their own, regardless of their practice or medium. Others may use animation as a strategy in their own work, asking how do we animate a space or how do we animate a work? Through animation theory and animation methodology, researchers, viewers, and practitioners across disciplines are offered the inbetween as a way to understand their own work. It is not just animation – it is the expression of a new conceptual space and is afforded a new perspective or point of view, one that is situated in a newly created space.

The play within the inbetween of animation can best be understood by considering other inbetweens around us, such as the borders of this page or screen. Engaging with conceptual space outside of the medium of animation and observing how the inbetween manifests in other media and across disciplines expand the potential of animation and its application. With the artist or viewer returning as the animator (a collaborative spectator, one who is conscious of their participation and engagement with media), the medium and theory of animation can be re-examined in a new context. The artwork acts as an open door through which the viewer may access the conceptual space in animation, but it is also an invitation. The artwork does not simply intersect or interact with the architecture but allows for new interactions, relationships, and conceptual space to form wherever a line, crease, fold or inbetween exists. I propose that the

process or mechanism, which permits animation to exist on screen, allows animation to exist everywhere. The possibility of finding space and movement in any-framework-whatever[14] necessitates the consideration of the self and subjectivity in art, research and society at large. If there exists a framework, the self and the occupation of conceptual space fills it with life and provides identification. "Where the singular can emerge from any instant whatever" (Deleuze, 1986, 6), the self can also be projected between any moment, extending and occupying new and undiscovered territory, both in between and within – into spaces infinitely deep and ever-expanding.

[14] As per Deleuze's any-instant-whatever (Deleuze, 1986, 6).

WORKS CITED

Abbott, Edward A. *Flatland: A Romance in Many Dimensions.* Seeley & Co. 1884. Print

Azéma, Marc and Florent Rivère. *Animation in Palaeolithic Art: A Pre-Echo of Cinema*. Antiquity 86 no. 332 June 2012. Print.

Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press, 2007. Print.

Benjamin, Walter. *Selected Writings Volume 2 1927-1934*. Harvard University Press, 1999. Print.

Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Durham, Duke University Press, 2010. Print.

Bergson, Henri. *Creative Evolution*. Translated by Arthur Mitchell. Macmillan and Co, 1922. Print.

Briggs, Rachel and Janelle Meyer. *Structuralism.* University of Alabama. 2009. Web. anthropology.ua.edu/cultures/cultures.php?culture=Structuralism

Coleman, Rebecca, and Jessica Ringrose. *Deleuze and Research Methodologies*. Edinburgh University Press, 2013. Print.

Cholodenko, Alan. The Illusion of Life: Essays on Animation. Sydney, Power Publications in Association with the Australian Film Commission, 1991. Print.

Deleuze, Gilles, and Felix Guattari. "Becoming Intense, Becoming Animal" *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi. University of Minnesota Press, 1987. Print.

Deleuze, Gilles. *Cinema 1: The Movement-Image*. Translated by Hugh Tomlinson and Barbara Habberjam. Athlone, 1986. Print.

Deleuze, Gilles. *Cinema 2: The Time-Image*. Translated by Hugh Tomlinson and Robert Caleta. Athlone, 1989. Print.

Deleuze, Gilles. *The Fold*. Translated by Jonathan Strauss. University of Minnesota Press, 2006. Print.

Dowden, Bradley *Zeno's Paradoxes*. California State University iep.utm.edu/zeno-par/ (n.d) Web.

Eisenstein, Sergei, and Jay Leyda. *Eisenstein on Disney*. Methuen, 1988. Print.

Ferry, Luc. *Homo Aestheticus: The Invention of Taste in the Democratic Age.* University of Chicago Press, 1994. Print.

Fisher, Kevin. "Tracing the Tesseract: A Conceptual Prehistory of the Morph" *Meta-Morphing*, edited by Vivian Sobchack. University of Minnesota Press, 2000. Print.

Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," *Simians, Cyborgs and Women: The Reinvention of Nature*. Routledge, 1991. Print.

Krauss, Rosalind. "The Rock": William Kentridge's Drawings for Projection" *The Sharpest Point: Animation at the End of Cinema*. Edited by Chris Gehman and Steve Reinke. YYZ Books, 2005. Print.

Laughton, Charles. *Night of the Hunter.* United Artists. 1955. Film

Radiolab. "Why Isn't The Sky Blue?" *Colors.* radiolab.org/story/211119-colors, 2016. Web. http://www.radiolab.org/story/211213-sky-isnt-blue/

Saussure, Ferdinand de. *Course in General Linguistics.* Translated by Wade Baskin. Edited by Charles Bally and Albert Sechehaye. Columbia University Press. 2011. Print.

Seigworth, Gregory J. and Melissa Gregg. "An Inventory of Shimmers" *The Affect Theory Reader*. Duke University Press, 2010. Print.

Steinman, Robert M, and Zygmunt Pizlo, Filip J. Pizlo. "Phi is not beta, and why Wertheimer's discovery launched the Gestalt revolution" *Vision Research.* Elsevier. August 2000. Web. sciencedirect.com/science/article/pii/S0042698900000869

Wells, Paul. *Animation: Genre and Authorship*. Wallflower, 2002. Print.

Wells, Paul. *Re-Imagining Animation*. Bloomsbury, 2008. Print.

Wells, Paul. *Understanding Animation*. Routledge, 2000. Print.

Williams, Richard. *The Animator's Survival Kit: Manual of Methods, Principles, and Formulas for Computer, Stop-motion, Games and Classical Animators*. Faber and Faber, 2001. Print.

GLOSSARY

ANIMATION REFLEX

Just as the moments are filled in when we blink, the same happens with animation. This is the animation reflex. When we look at something perceived to be in motion, it is described here as the animation reflex rather than persistence of vision, phi phenomenon, beta movement, etc. It is necessary to frame animation outside of the phenomena of perception or gestalt because animation is not an optical effect or a failure in cognition. Animation is a projection of life or élan vital, a necessity for life to create more life, to probe and explore. The animation reflex is our automatic/autonomic response to assemblages that harmonize with our own life force.

CONCEPTUAL SPACE

A functional space within the fold or cut of animation. This space is what is occupied by our self/being/life force or *élan vital* when animation occurs.

GENRE

Used literally to describe the kind or type of a thing. In literature and cinema studies genre might be classed as experimental, romance, comedy, horror and so on with infinite subcategories displayed across all mediums. The animation without genre that is referred to in this paper is an attempt to distance the conversation from the effect of animation in order to discuss the fundamental process of animation itself.

HOMOLOGY

A homology refers to a shared point of origin. An example of this lies in the term unfolding, which in animation refers to a process of animation that includes both planned and spontaneous form and action. In Buddhism, unfolding is the way in which a mandala is laboriously created. It is not drawn but rather unfolded, suggesting a greater point of origin, extending past its creators. Both uses of the word may reflect meaning on the other, offering greater perspectives on the importance and consequence of each process.

INBETWEEN

In animation production, the inbetween is the most insignificant frame, merely inserted in order to smooth an otherwise choppy or staccato scene. The job of the inbetween falls to the assistant or in the factory system of animation, is outsourced to warehouses filled with undervalued workers. The inbetween proposed in this paper, however, is the space between drawings and is the space with the most potential and the moment which calls on the viewer the most interactively. The inbetween is the empty space or the blink of the shutter or eye which calls on the viewer's consciousness to fill in space, translating the form of drawing from the first position to the next.