2015

Regarding The Porosity of Borders

Lee M. Piechocki
Department of Painting and Printmaking

Follow this and additional works at: https://scholarscompass.vcu.edu/etd

Part of the Fine Arts Commons

© The Author

Downloaded from
https://scholarscompass.vcu.edu/etd/3805

This Thesis is brought to you for free and open access by the Graduate School at VCU Scholars Compass. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.
Regarding the Porosity of Borders

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Fine Arts at Virginia Commonwealth University.

by

Lee Michael Piechocki
Bachelor of Fine Arts
Ball State University, 2005
Master of Fine Arts
Virginia Commonwealth University, 2015

Director: Arnold Kemp
Associate Professor and Chair, Department of Painting and Printmaking

Virginia Commonwealth University
Richmond, Virginia
May, 2015
Acknowledgment

I would like to thank my parents for their unconditional support and encouragement. I would like to thank my brothers for listening to me. Thank you to Tristan Telander for living with me, and loving me. I am especially thankful for Arnold Kemp, my committee chair and thesis advisor, for being such an insightful artist, thoughtful advisor and for sparking my interest in poetry. Thank you to the faculty and grad students in the Department of Painting and Printmaking at VCU for all your council and inspiration.
# Table of Contents

Abstract ........................................................................................................................................ iv
Cool / Heat ..................................................................................................................................... 1
Seduction ....................................................................................................................................... 4
Catoptromancy ............................................................................................................................. 7
Where Do I Begin and End? ........................................................................................................... 11
Images ........................................................................................................................................... 19
Endnotes ........................................................................................................................................ 23
Bibliography ................................................................................................................................. 27
Abstract

REGARDING THE POROSITY OF BORDERS

Lee Piechocki, MFA

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Fine Arts at Virginia Commonwealth University.

Virginia Commonwealth University, 2015.

Director: Arnold Kemp, Associate Professor and Chair, Department of Painting and Printmaking

An analysis of the surface of my paintings through Jean Baudrillard’s notion of seduction and the cool mechanism of the airbrush. I further investigate my work through the metaphor of the black mirror also known as a Claude Mirror and the connections between my work, Claude Lorrain’s landscape painting and divination through the use of reflective surfaces known as catoptronomy. Considering the notion of assemblage as outlined by Gilles Deleuze and Bruno Latour’s Action Network Theory I attempt to navigate the part/whole relationships found in painting, and in society.
Cool / Heat

The airbrush is a cool tool, and although it may be fashionable, this is not how I mean the term. The airbrush is cool in the way Jean Baudrillard uses it in his texts, lacking intensity and emotional investment. Labor is “hot”, execution of tasks is “cool”\(^1\). A brush, with its wooden handle held in the painter’s sweaty hand, the animal hair bristles coated in viscous paint smearing directly onto the canvas is emotional, intense and “hot”. The airbrush, in contrast, is a machined precision tool made of hardened stainless steel. The slightest finger pressure slides the well-oiled needle back from the platinum alloy nozzle activating pounds of compressed air to atomize paint into a fine mist. There is never any contact between this brush and the surface of the painting.

It is a common children’s game, and one I played often, wherein one hides an object and another searches. As the one who is searching gets closer to the place where the object is, the other says, “You’re getting warmer.” As the searcher goes farther from the place, the other says, “You’re getting cooler.” It is perhaps this childhood association between temperature and proximity, which has led me to consider the distance inherent to the airbrush *cool* and the contact of the paintbrush *warm*. To touch, to actually make contact with the hidden object in the children’s game, is to ‘burn up’ to ‘catch fire’. The heat of touch being so intense you risk bursting into flames and molten lava.
The distance between airbrush and the painting is centimeters. In this way, it does not have the coldness of a remote technology, like drone strikes or file sharing which renders distance obsolete. It even lacks the distance of most photography. This nearly touching but not quite is akin to sitting next to a secret crush, your knees under the table so close, hands nearly touching. You can feel the energy of the other, their magnetic pull. In this position of nearly touching but not, high levels of potential energy are generated without the friction of touch, like a high-speed maglev train\(^2\). Coolness in the form of distance and restraint generates heat.

Appearances are completely flat. They are superficial, without weight or substance, pliable and fluid.Appearances are truly one-dimensional and thus can never touch or be touched. A prerequisite to appearance is distance, a pure image without tactility.

The process of creating the painting, *Will You Be My Mirror?* (figure 1) consists of a series of moves, a dance of distance and touch, coolness and warmth, creating a fluttering pulsating effect. I have developed a regimen of priming and sanding, cycling through grits of sandpaper from high to low and alternating between dry and wet. The gesso is always applied with a fine foam roller. At this stage, every decision is made at the service of the surface, to make it as smooth as possible, without texture or blemishes. This is very hands-on, tactile and hot but the end result is a cool surface commensurate with dry-erase boards or photographic paper. The incessant wet
sand, cycling through finer and finer grits of paper is to move toward a frictionless surface.

The entire canvas is then covered in frisket – a clear plastic film with one side coated in a low-tack adhesive. This step is done methodically to assure no air bubbles are trapped between the frisket and the smooth surface of the primed canvas. The frisket is a barrier, and its application renders the surface of the canvas a quarantined area. This step is important on a functional and symbolic level. It covers, conceals, protects, and ultimately shapes the painting. It is a prophylactic. Sections are cut and removed, creating a mask, and the exposed surface of the painting is filled in. For every minute of painting, there is an hour of masking. Through this process of removal and replacement, puncture and fill, overspray occurs obscuring the transparent window of the frisket barrier. Ultimately the masking process allows me to keep a high level of control, leaving paint precisely where I intend. However because of the build up of overspray during the process, the frisket takes on a dual role: both barrier and smoke screen. In this way it allows for simultaneous control and loss-of-control.
Seduction

To be profound is to penetrate to the depths of one’s being. To be trivial, trite or insincere is to remain at the surface. An ethical hierarchy presents itself here, embedded within our language through metaphor. Matters of depth are important and bound to truth. To be shallow is to be false, judgmental, and frivolous. Invariably within the spirit of productivity (and all of modern science for that matter) exists a drive to dig beyond the superficial, which is seen as a mask or veil obscuring truth. The experiments at the Large Hadron Collider come to mind, as the physicists penetrate deeper and deeper into the quantum mesh of reality. In the direction of the macroscopic, NASA’s release of the largest photograph ever taken, an image of the Andromeda Galaxy captured by their Hubble telescope, made visible recesses of space never before seen. I too am driven to dig past the myriad of facades that I encounter in my life, in the name of understanding and knowledge. But for a moment, I would like to linger at the surface.

It is common practice, regarding matters of ontology, epistemology, ethics and even aesthetics to fabricate a dichotomy dividing mere appearances from deep truths. On the one hand we have the way things appear, on the other, the way they really are. In Book X of Plato’s Republic Socrates discusses the imitative arts with Glaucon the bright eyed, driving a wedge between the order of appearances and that of reality. Plato describes a three-tier hierarchy of creation. He ascribes the highest tier to a
transcendent divine creator – the one who makes originals, the second tier to craftsmen, builders and makers – those who make copies, and the lowest tier (furthest removed from reality) to imitators, including painters and mirrors – those that make copies of copies. “The imitator or maker of the image knows nothing of true existence; he knows appearances only”⁵ According to Plato, the trafficking of appearances defines the imitator and secures their superficial and inferior status.

The strength of appearances, and what draws my attention toward them however, lies precisely in their superficiality. Located completely at the surface and not beyond, appearances are weightless, pliable, nimble and fluid. They are not burdened with truth or reality – this is both their weakness and their strength.

When I paint something I am more interested in the appearance of the thing than the thing itself. In *Will You Be My Mirror?* (figure 1) It is not my closet that I am interested in per se, but the appearance of my closet. The currency of appearances is seduction as opposed to the currency of truth, which is power. “Seduction, never belongs to the order of nature, but that of artifice – never to the order of energy, but that of signs and rituals”⁶. As such, to be seductive is to reign over the symbolic universe, and to be powerful is to only reign over the real universe. “The sovereignty of seduction is incommensurable with the possession of political or sexual power”⁷. Jean Baudrillard describes seduction as a feminine force and the feminine as a principle of uncertainty. The feminine, according to Baudrillard, is not the sexual pole antagonistic to the masculine, but outside this binary completely. The masculine/feminine binary is itself
masculine. To be feminine, according to Baudrillard, is to dissolve the borders between
the two sexes. Transvestites perhaps best accomplish this since they operate at the
level of appearances – the natural habitat of seduction. There is an extra element of
deception with a non-female female than a real woman that allows seduction to be
taken to its limit. As a painter I am interested in this flat, superficial two-dimensional
realm of appearances and seduction.

If there is a miracle of trompe l’oeil, it does not lie in the realism of its execution,
like the grapes of Zeuxis that appeared so real, birds came to peck at them. This is
absurd. Miracles never result from a surplus of reality but, on the contrary, from a
sudden break in reality and the giddiness of feeling oneself fall. It is this loss of reality
that the surreal familiarity of objects translates.
Catoptromancy

Following my interest in surface, seduction and appearances led me to investigate the visual phenomenon of reflections, specifically in mirrors. Of course, Plato’s third tier of reality, that which creates images of images, was the realm of imitators: artists and mirrors.

The occult practice of gazing into a reflective surface; be it a mirror, crystal ball, or the surface of calm water to ‘see’ into the future is known as catoptromancy (figure 8). Rituals involving this type of divination can be traced back to pre-Columbian civilizations where gazing into polished obsidian had uses in sorcery and necromancy. The Aztec divinity Tezcatlipoca – whose name means “smoking mirror” – was depicted with an obsidian mirror on his head or in place of the foot he lost in his legendary combat with the monster Cipactli (figure 9). Tezcatlipoca, a warrior god was able to see into the future with the aid of his obsidian mirror, and was capable of bringing catastrophe or good fortune to the Aztec people.

In the 14th century Pope John XXII banned the use of convex mirrors because of their connection with sorcery and black magic. Round convex mirrors with a black tain, opposed to the silver tain - which gives regular mirrors their clear reflective properties, were known as ‘the devil’s ass’ “The devil is the deceptive mirror par excellence, the *speculum fallax*; he is the father of lies who creates illusions, usurps resemblance, and
causes man to turn away from his true model. The devil is sometimes allegorized in iconography through the image of a monkey playing with a mirror, since each one counterfeits the world, for the devil wants to rival his creator by producing simulacra.\(^9\)

The convexity, and dark taint of the black mirror create distorted and murky reflections disrupting expectations set by traditional mirrors. Gazing into these black mirrors and seeing dim reflections allow the viewer's imagination to create all manner of troubling phantasmagoria. Up until the 18th century these devices and the people who used them were considered evil, against the divine and against the natural. As opposed to a clear, white mirror, the black mirror not only provides a surface reflection of the external world but a portal containing its own reality quite different from the surrounding reality. These are seductive instruments, portals opening into a symbolic universe, and not mere reflections of the real.

Although my interest in surface and appearance runs through all of my painting, *Catoptromancy* (figure 2) most overtly explores the use of mirrors specifically in the history of landscape painting. It was in the 19th century, during the rise of the leisure class, particularly in France and England that people started venturing out into the landscape seeking picturesque vistas to observe and contemplate. It became common practice to carry along a small, pocketbook sized black convex mirror. Instead of observing the vista directly, the viewer would turn their back and gaze at the reflection in their black mirror (figure 7). During this time it became common to refer to this mirror as a Claude Mirror. “It has commonly been said that the Claude mirror was so called
because it gave the landscapes reflected in it the somber light ad golden tint associated with Lorrain’s paintings”. Claude Lorrain was a popular 17th century French landscape painter known for creating idyllic depictions of the countryside outside of Rome. Although he never used the optical device that would later be named after him, his paintings had a reduced color palette and sense of light akin to viewing the landscape reflected in one of these mirrors.

I began *Catoptromancy* by appropriating and distorting Lorrain’s painting, *Pastoral Landscape* (figure 3) from 1646. The horizontal composition was compressed and stretched vertically and a large oval shape was inserted into the center obfuscating the majority of the original painting. The landscape becomes visually distorted at the inside perimeter of the oval, imitating the distortion of either looking through a convex lens, or at the surface of a convex mirror. Like the black mirror used by witches and sorcerers, this mirror not only provides a reflection of an external reality, but an aperture into the symbolic. Located within my mirror is a strange face or mask. This mask was painted from a model I built in Sketchup – a 3D modeling computer program. There are many parallels between the black mirror used in medieval sorcery and the flat seductive screens of modern computers. I did not come to black mirrors through computers however, but through plein air landscape painting and Claude Lorrain.

On the morning of March 4th 2012 in the deep shadowy places - inaccessible to the sun no matter what angle it tried, little deposits of crusty snow still lingered. A month prior the entire expanse of limestone outcrops and hillsides thickly wooded with
burr oaks, and black walnuts was covered a foot deep with snow. For Western Missouri, it had been a brutal and unusually white winter. But, by that first Sunday in March, much thawing had occurred. From the perspective of a proper spring day, the temperature was down right chilly, but emerging from winter, it felt deliciously, coat-shedding warm. There had been several weeks of these temperatures by the time we found ourselves on Bootlegger’s Rock in the middle of Burr Oak Woods with easels, folding lawn chairs, and Ziplocs full of provisions.

The plans had been laid out months in advance – during the darkest part of that year, to venture forth into the landscape and paint from direct observation once the ground thawed. This plan was developed as a therapy in response to the particularly difficult winter of studio work and deadlines. Perched atop bar stools, hands still wobbly from the frigid outside temperature, artist comrade Robert Bingaman and I raised a glass of whisky to the idea. How blissful it sounded, to become immersed in the landscape and simply paint the scene in front of us! Neither one of us expected this would become a weekly practice, but between March 2012 and March 2014 I completed ninety-six paintings in nearly as many locations. And although this plein air regimen has ebbed with the tides of graduate work, it has persisted as a significant component to my artistic practice.
Where Do I Begin and End?

Where do I begin and end? This question marks the entry point into an investigation of the individual through the consideration of part/whole relationships. There are spatial and temporal connotations embedded in the question as well as an identity crisis. I am more interested, however, in what or where I am rather than who I am. I am interested in how I fit as 'one part among the others' within my environment. I am interested in how I am, as an individual, for instance, situated to society. I approach this investigation through Gilles Deleuze’s concept of the assemblage and Bruno Latour’s action network theory. I consider the micro/macro sliding scale of part/whole relationships, from sub-atomic particles to the individual to vast networks. I focus on transition zones, borders, and membranes, and the edges of things. Through this investigation I aim for a more nuanced understanding of what I see as a fundamental human paradox: “How am I not myself?” and at the same time, “No man is an island”. How can you not be your discrete autonomous self?, and simultaneously how can you be anything but a product of influences, pressures and forces completely outside your control?

To begin with I would like to consider what I am made of. A school of ancient Greek philosophers – known as the Atomists, including Epicurus and Lucretius, believed all material things in the universe could be reduced down to a primary
substance, an atom, from the Greek word atomos meaning uncuttable. According to the ancient atomists the origins of everything could be accounted for by the interactions of these atoms as they swirled within an infinite void. Lucretius’ first century BC didactic poem, ‘On The Nature of Things’ refers to this ‘primal germ’ simply as matter. The basic principle of the Atomists: if you look closely enough, all bodies are composed of the same microscopic stuff, is still held up today by modern physics. If you could observe the world through an electron microscope, you would see a vast sea of particles swirling around. There would be quantitative shifts, more dense zones of particles, less dense zones of particles, but no qualitative shifts. There are changes in intensity only.

Everything at that level is the same. Borders, and boundaries between objects completely dissolve. I am fundamentally made of the same stuff as all matter (animate or inanimate) then where I begin and end becomes blurred. I certainly cannot be reduced to my basic components.

The physical world consists of discrete, bundled, segregated and insulated bodies. Any body at first appears to be contained by clearly delineated edges and limits: me, you, a computer, a car, an apple. Then something happens. This immanent rupture is an event that shifts your attention to the contiguity of the body at hand. The rupture is always traumatic. This traumatic break in the structure of the body reveals it to be in fact a swarm of bodies, which in hindsight were there all along (immanent) as necessary parts of the original whole.
The rupture that suddenly drew my attention to my body as a Thing\textsuperscript{15} was the sudden and immanent failure of my pancreas to produce insulin while I was on a Hawaiian vacation in 2006. My body, at that moment was revealed to be a swarm of bodies including: genes, Pele’s curse\textsuperscript{16}, my blood vessels, glucose molecules, everything I had ever ingested including Bovine Growth Hormone (BGH)\textsuperscript{17}. Here I realize that ‘no man is an island’ that I am porous and not only susceptible to outside forces, but possibly am those forces.

Porosity is a measurement of the void, or empty space embedded in a matrix (a solid skeletal structure). The matrix delimits the shape of the pores, and the volume of the pores defines the matrix, they are two interpenetrating continua. Porosity describes the state or quality of being porous; of having openings, punctures, perforations, apertures or holes. A porous substance is a permeable substance, open to the flow of fluids, gases, ions, information, memories or desires. A porous material is absorbent. Pumice, wood, sponge, foam, skin, and glass are all more or less porous materials. They are selectively permeable which allows for osmotic flow of substances from the outside in, and from the inside out. A human body is a porous body. I am a porous body.

Jane Bennett’s book, Vibrant Matter, considers the agency of inanimate objects. She discusses Spinoza’s term for an “active impulsion” or trending tendency to persist inherent in all bodies: conatus.

Edible matter (food) is a type of inanimate object that has agency. Of course, food gives us the nutrition, the necessary building blocks, to regenerate cells and tissue,
and the fuel to propel all our metabolic processes. Food allows us to live literally, however, Bennett takes it a step further giving more agency to the food, considering the food/human aggregate as an assemblage.

“To eat chips is to enter into an assemblage in which the I is not necessarily the most decisive operator. Chips challenge the idea, implicit in the Roper survey, that what people “want” is a personal preference entirely of their own making.”

In Foucault’s text, The Order of Things: An Archaeology of the Human Sciences, he outlines four types of similitude, the fourth and ultimate type being sympathy. “Sympathy is an instance of the Same so strong and so insistent that it will not rest content to be merely one of the forms of likeness; it has the dangerous power of assimilating, of rendering things identical to one another, of mingling them, of causing their individuality to disappear – and thus of rendering them foreign to what they were before.” Because the forces of sympathy are so strong, there must be an antagonistic force to prevent the entire universe from collapsing into itself. Foucault’s term for this antagonistic force is antipathy. “Antipathy maintains the isolation of things and prevents their assimilation; it encloses every species within its impenetrable difference and its propensity to continue being what it is.” This duality of sympathy and antipathy allows for things to resemble and be similar to one another but to assure they will not lose their singularity. This constant push and pull explains how things grow.

Deleuze’s concept of assemblage is key to my investigation. Assemblages are composed of heterogeneous elements loosely or tightly bound together. Deleuze’s
terms for the looseness or tightness of the boundaries of an assemblage are lines of territorialization and lines of deterritorialization. The more territorialized an assemblage, the more clearly defined its boundaries and the more tightly bound it is. An example of a highly territorialized assemblage is an individual human being. Viewing the human through a traditional anatomical and physiological lens we see the organization of specialized cells into tissues, organs and systems. A line of deterritorialization, in my case, was the introduction of an insulin pump. This artificial component is attached to my body, and some mixing/blurring is allowed between what was once outside and what is inside. Territorialization and deterritorialization refer precisely to how sharply delimited or how fuzzy the limits are to a territory. A highly territorialized assemblage is relatively homogenous and unchanging. A Deterritorialized assemblage is more porous, fuzzy, indeterminate and open to change. It is important to note that the degree of territorialization of an assemblage is subject to change at any given moment. For instance when an individual is working as a team with a group of individuals to complete a common task. Here a certain amount of deterritorialization is happening as individual wants or needs are being blurred and merged with the team wants and needs.

Another key notion of the assemblage is that it has emergent properties. A fantastic example of emergent properties can be seen in the water molecule assemblage. Its individual parts: 2 hydrogen atoms and 1 oxygen atom are in themselves highly flammable. Through the assemblage, fire-extinguishing properties emerge. It is the concept of emergence at every level of assemblage that is responsible
for the vast variety of bodies (animate and inanimate) that exist which are all made from the same fundamental subatomic stuff. Using the human individual as an example again: subatomic particles come together to form the assemblage of atoms. These atoms have emergent properties. They merge to form cells, which have emergent properties that merge to form tissues, which have emergent properties and so on, all the way until the entire organism of the individual.

Because of the emergent properties, assemblages are irreducible. This means they are greater than the sum of their parts. But, according to Deleuze assemblages are also decomposable. This means that when the heterogeneous elements merge to form the assemblage (pancreas connecting to the body for instance) this merger can be reversed, the pancreas can be removed and the body continues. Oxygen can be removed from hydrogen and retain its flammable properties. Parts come together to form a whole expressing emergent properties, but parts maintain their autonomy. These emergent properties are immanent as opposed to transcendent. Hydrogen, on its own, holds the capacity to extinguish fire, this capacity is always there, latent, until the hydrogen forms a bond with oxygen. The individual parts of the assemblage retain capacities not properties. Also, if the assemblage is completely deterritorialized, the emergent properties dissipate.

What I find extremely interesting is this concept of territorialization and deterritorialization are continuous quantitative shifts. The boundaries of an assemblage are constantly being loosened and tightened (some more than others). Manuel
DeLanda, a Deleuze scholar, has developed a beautiful theory that explains that at points on this quantitative dial, there are qualitative shifts. Here again, water is a great example. If you change the temperature of water incrementally the bonds between molecules can become more or less territorialized, but at key phase shifts, water can go from a solid to a liquid to a gas.

Arthur Koestler in his book, The Ghost in the Machine, developed a concept called a Holon. A holon is an entity that from one perspective appears a self-contained whole and from another a dependent part. This is based on his observations that part/whole relationships that are relative are easy to find, but finding a part that is not also a whole, or a whole that is not also a part is difficult. I believe it is through the phase shifts mentioned above, and the rupture I mention in the opening paragraph that allows this simultaneous part/whole existence of all things.

A substance’s ability to slide from actor to network and back is at the heart of Bruno Latour’s Actor Network Theory (ANT). To try to follow an actor-network is a bit like defining the properties of light: any entity can be seized either as an actor (a photon) or as a network (a wave).

It is in this complete reversibility – an actor is nothing but a network, except that a network is nothing but actors – that resides the main originality of this theory. Latour suggests that this reversibility has to do with our current robust technology and our ability to mine data into huge reservoirs while maintaining the connection back to the individual. In the past, this was simply not possible. You could administer a survey to
individuals, the responses would be compiled and statistics for the population would result. But there was no way to maintain the connection back to the individual. Now with digital technologies everything is linkable and traceable. You can seamlessly toggle between individual and society at will. “ANTs claim is that the very idea of individual and of society is simply an artifact of the rudimentary way data was accumulated”.21 In Latour’s ANT what at first seemed self-contained becomes widely distributed. This toggle between actor and network smoothly and seamlessly I believe can be explained by the phase shifts in the territorialized and deterritorialized assemblages outlined by Deleuze.

I have found an combination (an assemblage if you will) of Deleuze’s concept of the assemblage (with its explanation of emergence, territorialization, deterritorialization, coding and decoding, phase shifts…) coupled with Latour’s concept of Actor Network Theory – with its complete reversibility, in which it is no longer a question of individual “in” society, but that everything fluctuates between network and actor, gliding back and forth smoothly within the datascape.
Images
Images

(Figure 1)
*Will You Be My Mirror?*, Acrylic on canvas, 58" x 72", 2015

(Figure 2)
*Catoptromancy*, Acrylic and oil on canvas, 72" x 58", 2015

(Figure 3)

(Figure 4)
Still from F.W. Murnau’s *Nosferatu*, 1922
(Figure 5).  

(Figure 6).  

(Figure 7).  
Claude Mirrors.

(Figure 8).  
Still from Walt Disney’s *Snow White and The Seven Dwarfs*, 1937.
Depiction of Aztec divinity Tezcatlipoca in the Codex Fejérváry-Mayer (figure 9).

Still from David Cronenberg’s Videodrome, 1983. (figure 10).

Endnotes

“Hyperreality corresponds to the disappearance of intensity. It becomes something “cool” – stripped of intense affective energies and the power of the symbolic and of fantasy. For instance, the “hot” commitment to labour is replaced by the “cool” execution of tasks. The “hot” art and film of historical investment is replaced by the “cool” functional or machinational pleasure of perfectly simulated fiction. Baudrillard is often misunderstood. He does not use the term “cool” in the sense of fashionable or enjoyable. He is referring to the loss of heat. Heat is here a metaphor for intensity, enjoyment (as opposed to pleasure), and emotional investment. To be “cool” is to be apathetic, disillusioned, uncommitted”.


3 Cern. *The Large Hadron Collider*. 2015  
http://home.web.cern.ch/topics/large-hadron-collider (accessed 04/02/2015)  
The Large Hadron Collider (LHC) is the world's largest and most powerful particle accelerator. It first started up on 10 September 2008, and remains the latest addition to CERN’s accelerator complex. The LHC consists of a 27-kilometre ring of superconducting magnets with a number of accelerating structures to boost the energy of the particles along the way.

4 NASA. *Hubble’s High Definition Panoramic View of the Andromeda Galaxy*. 2015  
http://www.nasa.gov/content/hubble-s-high-definition-panoramic-view-of-the-andromeda-galaxy (accessed 04/15/2015)  
The largest NASA Hubble Space Telescope image ever assembled, this sweeping bird’s-eye view of a portion of the Andromeda galaxy (M31) is the sharpest large composite image ever taken of our galactic next-door neighbor. Though the galaxy is over 2 million light-years away, the Hubble Space Telescope is powerful enough to resolve individual stars in a 61,000-light-year-long stretch of the galaxy’s pancake-shaped disk. It’s like photographing a beach and resolving individual grains of sand. And
there are lots of stars in this sweeping view -- over 100 million, with some of them in thousands of star clusters seen embedded in the disk.

5 Plato, Republic 601


7 Baudrillard, p. 8.


9 Maillet. p. 47

10 Maillet. p. 34.

11 I use the term ‘dark’ seasonally, as December has the shortest days and longest nights in the Northern Hemisphere, and I also mean ‘dark’ metaphorically and personally. The winter of 2012 was particularly difficult for me.

12 Deleuze, Gilles. Anti-Oedipus. “To be a chlorophyll- or a photosynthesis-machines, or at least slip his body into such machines as one part among the others. Lenz has projected himself back to a time before the man-nature dichotomy, before all the co-ordinates based on this fundamental dichotomy have been laid down. He does not live nature as nature but as a process of production. There is no such thing as either man or nature now, only a process that produces the one within the other and couples the machines together.” p. 9


14 Donne, John. Meditations XVII 1624

15 Bennett, Jane. *Vibrant Matter*. Durham: Duke UP, 2010. “I will highlight the active role of nonhuman materials in public life. In short, I will try to give voice to a thing-power. As W.J.T Mitchell notes, “objects are the way things appear to a subject – that is, with a name, an identity, a gestalt or stereotypical template....Things, on the other hand,...[signal] the moment when the object becomes the Other, when the sardine can looks back, when the mut idol speaks, when the subject experiences the object as uncanny and feels the need for what Foucault calls ‘a metaphysics of the object, or,
more exactly, a metaphysics of that never objectifiable depth from which objects rise up toward our superficial knowledge." p. 2.

16 Pele’s Curse is the belief that anything natively Hawaiian, such as sand, rock, or pumice, will effect bad luck on whoever takes it away from Hawaii.


18 Bennett, p. 40.


20 Foucault, p. 24.

Bibliography
Bibliography


