THESIS

ENTROPY AND CYCLES

Submitted by
Bartow Mills
Department of Art

In partial fulfillment of the requirements
For the Degree of Master of Fine Arts
Colorado State University
Fort Collins, Colorado
Spring 2010
COLORADO STATE UNIVERSITY

March 29, 2010

WE HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER OUR
SUPERVISION BY BARTOW MILLS ENTITLED ENTROPY AND CYCLES BE
ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF
MASTER OF FINE ARTS.

Committee on Graduate Work

________________________________________
Marius Lehene

________________________________________
Sasha Steensen

________________________________________
Co-Advisor: Patrice Sullivan

________________________________________
Advisor: Dave Yust

________________________________________
Department Head: Gary Voss
ABSTRACT OF THESIS

ENTROPY AND CYCLES

This body of works subject and focus point is the cyclical nature of matter and the forces therein. There have been explorations of this concept on all fronts including metaphysical philosophy, science, and art. It is the recurring realization of matter as a cyclical form being driven by unseen forces that leads me to believe the subject is of utmost importance. Through the use of a specific set of marks, surfaces, symbols, and imagery I am attempting to conjure this realization and come to a better understanding of the concept, and to ultimately echo a similar response in an audience.

Bartow Mills
Department of Art
Colorado State University
Fort Collins, CO 80523
Spring 2010
The fundamental nature of all matter in the universe, according to the second law of thermodynamics, is to seek entropy.\(^1\) The breaking down of material over time and the spreading of particles is at the heart of this natural process. There is also a reemergence of these loose particles, which is apparent in the organization of biological organisms and complex molecular and atomic systems. This process and the philosophical implications therein is the conceptual viewpoint that lies at the center my work and drives the process of its creation. The paintings must not only communicate this concept but exist as the concept for the viewer. The simplicity of just displaying an illusion to an audience is not enough to engage my own aesthetic or a viewer with these ideas of entropy and cycles. The illusory imagery, symbols, and words used in two dimensional artwork, while certainly affective at communicating, often is arbitrary to the artwork as an object with its own life. The work must be dense and have weight, if only visually, and occupy space with a diligent espousal of its own structure. Throughout this body of work the structural surface qualities and textures create a repeating motif of entropy and reemergence which in essence brings the work to life beyond the illusion of a two dimensional painting. This cyclic nature of matter that is referenced in the work and which draws out the artifactual quality of each piece is suggestive of the physical cycles of material in the universe and also comments on the cyclic nature of thought and ideas that reverberate through time and culture. From these fundamental processes of how all things

---

\(^1\) R. Nave, “Entropy as Time's Arrow,” Hyper physics Hosted by the Department of Physics and Astronomy at Georgia State University, 1 August 2000, (accessed 23 January 2010). <http://hyperphysics.phy-astr.gsu.edu/hbase/therm/entrop.html >.
function as part of specific and generalized cycle arise many collective concerns on the nature of reality and the cosmos.

When creating my work there is a period of unrest in the beginning. The material I use is applied and stripped away in order to infuse the work and allow it to become an object which has, in essence, experienced this basic natural process. During this time the painting unfolds in an automatic state. This is not to say decisions aren't made. The most occurrent decision is set up a formal equivocal space, which may persist through until completion as in Focused Meditation (Fig.1). This mode of working in the early stages of the painting is a direct reference to the scientific realizations concerning the perspective of reality governed by the laws of quantum mechanics and more specifically the experiments done by Niels Bohr dealing with electron behavior under human observation. Entropy and the particle nature of the universe is inspiring and mysterious and it makes perfect sense to delve inspiration and ideas from this basement level of reality. The dimensions in which quantum physics probes and experiments with are the concepts and laws that drive the cycles of the cosmos. Bohr discovered, essentially, that all things exist within the same field or wave of probability until consciousness intervenes.2 This idea sets up all of reality as an equivocal space existing as a fluctuating wave of possibility which is highly interconnected and affected by our own observation. The fluctuation and entropy of what is believed to be finite material therefore is a cycle that takes place as an illusion itself when considering the infinite oneness of all material in the universe. Setting up a painting formally as an equivocal space early on is an attempt to focus my intention on mirroring this kind of existence which is the blueprint from which all things physical emerge. By constructing the surface of this piece with a wave pattern relief (Fig

---

2) I am referencing this ever fluctuating field of reality. How ideas function on this stage of all encompassing oneness as cyclic is the next parameter from which the piece Focused Meditation functions visually. All of these ideas stem from an overall exposition of matter and how we as humans understand its existence as a cyclic form. The surface of the piece contributes to these ideas through its texture, especially the particle nature of the sand and the patina surface that comes from a natural process mirroring the natural world therein. The text relief on the piece becomes something that is unreadable but most certainly there visually. The words that are spelled, while not getting too specific, are a visual reference to the ambiguous or equivocal nature of language. Language, like material, goes through the same processes of entropy and reemergence. Human thought and culture is being cycled on a larger scale, mirroring the fundamental nature of the universe to encompass all things as one and cycle them into existence through our concepts and ideas. Although the quantum view of reality has only been realized in the 20th century on a scientific front this idea can be attributed to many philosophers throughout history as far back as 520 BC. The idea was possibly first identified when the Greek philosopher Heraclitus said “It is wise, listening not to me but the logos, to agree all things are one.”

In the piece Nibiru at the Baktun (Fig. 3) there is a focus on the cyclic nature of thought as referenced with specific symbols. The charred surface, drastic equatorial depression, and flesh like color/texture within the depression are all references to the symbiotic nature of organic material and the natural processes of entropy and cycles. The most prominent, albeit somewhat obscure, reference is the word “Nibiru” which traverses the piece from the left border to the right. If an internet search is done for “Nibiru” there is a host of sites dedicated to the

3 Charles H. Kaun, The Art and Thought of Heraclitus (Great Britain: Cambridge University Press, 1979), 130.
unorthodox interpretations of this word in contemporary times. Nibiru, in ancient Sumerian astronomy and myth, was the planet from which the gods descended to the earth and created the human race.\textsuperscript{4} The new interpretations of this idea is that Nibiru is due for its cyclic return that will coincide with the date 2012 which is all too familiar in pop western culture. The importance of this date is most readily attributed to ancient Mayan astronomy and their predictions that 2012 heralds the end of time in an apocalyptic occurrence.\textsuperscript{5} The juxtaposition of these two seemingly dissimilar ideas, Nibiru coming back in 2012 and the Mayan calendar pointing to 2012 as the end of time, is an example of how ideas can permeate through vastly different cultures and traverse great distances in time to resurface as a cyclic idea or form. In the left and right corners of the piece are the Mayan symbols for what is considered a Baktun. Baktun refers to a specific amount of time on the Mayan calendar, the current Baktun coming to an end in 2012. So by juxtaposing these two ideas within the piece it is a reference to the nature of these two distantly ancient ideas as they have resurfaced in modern culture. The middle depression can therefore become the equatorial mark that may represent the belly of the galaxy, which is what the Mayans were referring to with their date of 2012. It is not a conceptual end of time but the date when our solar system will begin it's crossing through the equator of the galaxy itself. The spray painted word “Baktun” on the top layer of the painting seems weathered and old as if these contemporary juxtapositions and reinterpretations of the Baktun cycle were tagged in modern times and forgotten. This is a way to post excavate the artwork and allow it to exist in a time removed from the present and be as these ideas will exist in a future context.


Many marks have developed in this body of work that have become a signature for me. Finding my own unique vocabulary and mark making to convey my ideas and intents are always in the front of my process. The aspect of the work that I have most connected with in this series is the deep cracks, the depressions, the incised lines that give the work an illusion of great density. In the piece Timeline (Fig. 4) the format is divided with a deep incised mark stretching from either end of the lateral surface. The density that this creates for the viewer is important in referencing the material nature of the object as an artifact of itself rather than an illusion pertaining to an illustrative representation of material process. The loop of “xy’s” using sand is a reference to organic DNA, consciousness, and the mathematical structure that humans have attached to the universe. These things again all reference back to quantum theory and the underlying field of energy that connects all off reality. The top of the Baktun symbol found its way back into this piece in open format position, settling into the left corner. One would not be able to read what these marks unless viewed in careful contemplation and context with the piece Nibiru in the Baktun. Linking the two pieces together in this way as a cycle within the process of creating each piece again recalls the nature of the universe to move things in repetition. The particle nature of the sand and the juxtaposition of textures and marks in this piece aren't as specific as the other works discussed thus far but are no less revealing of the entropy and emergence to which I am fascinated and am conveying to an audience.

Moving into more referential imagery with Encoded Otzi (Fig. 5) is a step into an illustrative kind of illusion. The figure itself exists as a pixilated or particulated representation of the oldest known European human remains. Encased in the white ice like surround and peppered with salt gives the impression of human flesh being preserved in stasis yet still breaking down in a more expansive amount of time than what is usually associated with
unmanipulated organic material in the earth. The deeply incised equatorial lines attributing the piece the density that is inherent to an object rather than an illusion. The piece is two separate formats brought together to create a deep vertical visual line in between, repeating the trenches found in each panel. The line in between speaks of the space between the objects as part of the work and suggests the connectivity of material in what would seem to be separate things. The “xy” patterning in the work references the sacred geometry or fundamental make up of the universe as well as the DNA and genes of all living things.

The next piece in this body of work is again two unconnected panels brought together in order to create a line or space that will speak of the connectivity of things that never actually touch. The piece, titled Winged Disc (Fig. 6) is a direct reference to the archetypal winged circle form that has permeated visual culture for thousands of years, ever since the Sumerians wrote of Nibiru as the winged disc. The reemergence of this form through history is a repeated visual symbol throughout history. Again using the deep incision mark to speak of the density of the material and this time as an outline for the prominent circle form that is juxtaposed with other bodies in the tight space. These forms can be referenced to particulate interaction or planetary alignments, being that they are all one in the same from a relativistic perspective.

Ultimately each painting that I create harnesses a few basic concepts. The work must experience what it means to emerge and be destroyed as a mirror of how material and thought function in the universe. This reference and representation of how humans understand the nature of all things is important in giving the work a life of its own and hopefully engaging the viewer on a very basic level. The entropy and cycles of material and thought are what captivates and drives the human race towards the unknown future and makes my paintings what

they are; Objects and artifacts that function as representations of the contemporary understanding of the universe and all things within.
Fig. 1, Bartow Mills, Focused Meditation, 2010, Mixed Media, 72” x 36”
Fig. 2, Bartow Mills, Focused Meditation (detail), 2010, Mixed Media, 72” x 36”
Fig. 3, Bartow Mills, Nibiru at the Baktun, 2010, Mixed Media, 72” x 24”

Fig. 4, Bartow Mills, Timeline, 2010, Mixed Media, 72” x 24”
Fig. 5, Bartow Mills, Encoded Otzi, 2010, Mixed Media, 72” x 36”
Fig. 6, Bartow Mills, Winged Disc, 2010, Mixed Media, 72” x 36”
Bibliography


