DOCUMENTING THE IMPERMANENCE OF CLAY

A Thesis

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by

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CHAPTER 1:

INTRODUCTION

“Ars sine scientia nihil est.” - Art without science is nothing.¹

“Scientia sine arte nihil est.” - Science without art is nothing.²

My work is not ceramic. My medium is clay but not in the traditional sense of ceramic making. Ceramic describes clay, altered by fire, transforming into a material with stone-like permanence. My work is clay. Clay is brittle when dry and viscous when wet and thus, impermanent. I have documented these impermanent states of clay. These microscopic views alter perceptions of not only material but of the nature of our existence.

My work shows aspects of both origin and destination that are mirrored in the nature of our existence. An origin is the first stage of existence and a destination is the ultimate purpose for which something is created or intended.³ This lifecycle is present in all living things. As many clay and ceramic artists before me, my work continues to include aspects of this process. My processes, however, have more in common with the

¹ Mignot, Jean. Milan Cathedral mason.
² Wilson, Bob. Fermi Lab scientist.
Scientific Method. No matter how much or how little my work may change, I use the framework of this method in all of my work.

The Scientific Method is a body of techniques for investigating phenomena and acquiring new knowledge based on gathering observable, empirical and measurable evidence subject to specific principles of reasoning. A scientific method consists of defining the question; gathering information and resources (observing); forming hypotheses; performing experiments and collecting data; analyzing data; interpreting data and drawing conclusions; publishing results; and then retesting. My work embodies the basic framework of the Scientific Method which accounts for quick evolutionary successions as one body of work.

As in many scientific experiments, the hypothesis is usually based on a new study, something which has not been tested, or that needs to be retested. I set for myself the task not to discover something new, but to reemphasize a relationship. Our relationship with earth, as symbiotic, needs attention. Somehow we need to reestablish this connection. I ask the viewers to take a moment of their time and notice the connection they have with the earth beneath their feet. Observe and reflect. We live, we die and the cycle continues. The history of the earth, more specifically, clay plays a major role in civilization. Archeologists have used clay shards to identify and date cultures, follow migrations and map civilized progression.4

My first introduction to clay on an academic level lay in Soil Science, as apart of my Bachelor’s of Science in Horticulture.5 Soil particles including clay, sand and silt


5 Received from Texas A&M University, 1996.
were explored, observed and recorded both in the lab and outside in the field. Clay as art medium came later. I remember it as something flexible and forgiving. These properties of clay are indicative to its molecular makeup. It is the most abundant and inexpensive material on earth. The natural processes that weather and decay igneous rocks provide us with extensive clay deposits in variety of forms. These forms have tremendous versatility and possibility. I can cast, throw, extrude, model, roll, pinch, press, slump, stamp, pull and push it. I can use it to form any shape. However, before shape and volume, there are the clay’s properties which dictate its capacity.

In my experience with clay I experiment with clay properties that lay outside of the tradition of ceramic art, whether functional or sculptural. I have returned to the clay as particle, as element, and as a singularity. I choose to focus on clay’s unique quality before it becomes “ceramic”. For most of my graduate career I have documented these properties through the camera lens in both print and video. These documented particles of clay are now samples to translate into my own language concerning lifecycles.

This language is inspired by a number of artists, designers and architects who lay inside and outside the traditional realm of the clay community. Earthworks artists such as Andy Goldsworthy use natural materials and documentation in their work. Visionary architect Lebbeus Woods remains among the most influential on my imagery because of his symbiotic integration of architecture and catastrophe. His continuous focus on war torn, decayed, and catastrophic ridden locations speak to my interests in lifecycles and renewal. Organization of rust and rubble dynamically reshapes into multi-planar, anti-
gravitational geometry. Photographer Edward Burtynsky’s large scale prints call
attention to human impact on the earth in his series of ‘Manufactured Landscapes’. These groups of creative individuals spark my work into being, but it is the Concept Artists that really turn my ideas on end.

Concept artists such as Scott Robertson and Syd Mead have become the energetic catalyst for stepping outside the bounds of tradition and into the realm of visionary thinking and methodology. It is they who have helped me combine technology with traditional clay techniques. From the point of the traditional clay artist, technology is usually relegated to refined materials such as pure kaolins for fine china and digital thermocouples for gauging temperature to within a fraction of a degree.

I experiment with entropy, the inevitable and the deterioration of systems, a parallel shared with all living things. I explore and document this idea using natural materials as my palette. My primary material is clay. Over the past twelve years, I have been experimenting, observing and recording clay and other soil particles. Documentation assists with my vision. It bear witness to the events which unfold. Events of clay in both creation and destruction scenarios play out in front of the camera. Scenarios which allude to the cosmos are perceived from the microscopic clay particles.

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8 Pauli, Lori, Manufactured Landscapes, The Photographs of Edward Burtynsky

9 Scott Robertson, graduate of Art Center, is head of the publishing company Design Studio Press. He designs both real and imaginary vehicles for entertainment industries.

10 Syd Mead, Visual Futurist and lead designer for a number of films including Blade Runner, Tron, Mission to Mars and Star Trek: The Motion Picture.

CHAPTER 2:
HISTORY OF CLAY

2.1 Clay as Material

Clay is found in beds and strata in the ground, produced naturally by the decomposition from the granite and gneiss rocks which constitute roughly 85% of the earth’s surface. Two characteristics of clay which are indispensable in its use are plasticity, when wet, and durability, after heat is applied.

The word clay comes from the German word *kleben*, which means “to stick to.” Clay that has become inundated with water, to the point of dough, is easily manipulated and can be molded into any shape. Depending on the clay’s components when mixed with water, one can construct to defy or submit to gravity. Thick or thin, tall or short, forms are usually arrived at by constant testing and analysis of components of the clay.

Traditionally, clay is shaped and then fired with the use of kilns reaching temperatures close to 2400º, usually referred to as highfire stoneware. This firing transforms the clay in several stages to become ceramic. Clay is usually bisque fired to draw the last bit of moisture out, reaching temperatures of about 1800º. After this stage, the bisque ware becomes ready for a coat of glaze or silica mixed with clay, which once

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12 Rawson, Philip. *Ceramics*

fired to 2400° turns into a protective coating of glass. At this temperature, clay also becomes vitrified or glass like.\textsuperscript{14} Having undergone vitrification, clay becomes ceramic and will physically last forever as a stone-like material, even if broken. Processes for earthenware and porcelain are similar although they have lower and higher firing temperatures, respectively.

This knowledge of clay material was not an overnight success. Four thousand years ago, in China, the early clay scientists developed the first kilns from bonfires, pit enclosures.\textsuperscript{15} In a way, the villages which produced tiles, pottery and statues became the test bed for many experiments with clay, kiln and glaze chemistry.

These experiments, however, were not the first where man has experimented with art and science.

From the moment cave dwellers covered their hand with ground pigments from rocks and spat forth leaving a silhouette of the other hand on the wall… the knowledge of pigment and moisture to produce a stained wall… that is the first marriage of science and art.\textsuperscript{16}

The populous living in caves at the time experimented with all manner of materials. They deduced that rock of a certain composition would produce a certain color powder when pulverized. This powder when mixed with moisture would produce a certain effect when used as a drawing medium. A similar process of experiment and analysis continues in my work. With the aid of documentation tools, capturing these properties remains intensive and further experimentation continues.


\textsuperscript{15} Peterson, Susan. Contemporary Ceramics.

\textsuperscript{16} McMullan, Dr. Ernin, Professor Emeritus Philosophy, University of Notre Dame.
All potters, and most relatively primitive people using pottery, are aware of the nature of clay, as coming from the body of the earth, the mother of all; for they may use it with no further preparation. In ages earlier than our own, which were more keenly aware of symbolic correspondences, their feeling for this origin of clay in the earth, symbol for the most concrete objective reality, which was passed through fire, symbol for celestial transmutation, certainly contributed a great deal to people’s feeling for ceramic artifacts.17

The substance which gives to clay its properties of plastic cohesion is an alumino-silicate whose plate-like crystals readily slide against one another when wet, whilst also adhering to each other, as two wet sheets of glass do. This alumino-silicate is produced by the action of humic acids upon feldspar, which is a principal component of the granite and gneiss mother rocks from which clay is derived by decomposition. This is one component of many. By itself pure clay is almost slime, hardly workable. Beds of pure feldspar are rare. Beds of suitably decomposed pure feldspar are rarer still; in fact, they form those beds of white kaolin which are so important in the history of porcelain manufacture. Most clay, however, contain in particle form the other components of the original mother rocks, especially silica or sand. So the working properties of clays are really the result of the varying proportions of all those other components, which are bonded together by the alumino-silicate content.

No one knows for sure how the first pots were made, but there has been plenty of speculation. Some historians hypothesize that the Jomon culture of Japan, ca. 8,000 –

17 Maria Martinez Native American Potter of San Ildefonso, Dir. Rick Krepela. National Park Service Film. 1999. Documentary. (Maria digs clay up from the earth with her son and then is seen throwing some back to the earth in a symbolic gesture of thanks.)
5,000 B.C.E., were the first to use fired clay functionally. This idea lay in the cultures process before clay was used. The villagers used woven baskets until an individual lined their basket with clay to make the basket watertight. The basket came into close contact with fire used for cooking and thus hardened as the water and reed were burned away, leaving a clay pot. Archeologists have found woven rope-like impressions on clay pots of that era. It would take experimentation to perfect this into ceramic.

To work with clay is one of unexpected and often times disappointing results. Through trial and error one hopes to remember and learn from what variables achieved success. Furthermore, can one even duplicate success? Would one want to so? The question of whether or not a piece is successful varies to the individual and their art form.

2.2 Clay as Art Form

In this section I will discuss three examples from the Twentieth Century in which clay was taken outside the boundaries of tradition. Each of the examples sought to alter not only material, but the public’s view and understanding as well.

Peter Voulkos (1924 - 2002) redefined traditions. His work changed the international scene of ceramics during the 1950s and 1960s. He did not start with technical issues about clay and glazes. His focus was inward. “Begin to know your limits and the rest,” he said, “…would come later.”\(^\text{18}\) He physically gouged, punched and scraped in a constant effort to push the limits of clay and himself.

A painter, ceramicist, and sculptor, Vouklkos’ energy lay in multiple disciplines. He also incorporated a love of guitar, traveling, and workshops into his schedule. Schools teaching in the traditional manner became threatened by his ideas, but Vouklkos loved a “controversial pot.”

He sought inspiration in machinery and architecture and as a result his work reflected that monumentality. As seen in Solearas, (Figure 2.1) and others, remain some of the largest ceramic pieces ever made in America during that time. The threat of change is always more terrifying than change itself.

Figure 2.1 Soleares (also known as Rex Rock), 1958. Stoneware, wheel thrown and paddled parts assembled in a bulbous, self-enclosed, and monolithic appearing construction around a central cylinder. 68 inches high. Franklin D. Murphy Sculpture Garden, UCLA.

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On May 11, 1971, in the Art and Technology Show at the Los Angeles County Museum of Art, Robert Rauschenberg (b. 1925) in collaboration with Teledyne\textsuperscript{21}, created \textit{Mud Muse}.\textsuperscript{22} (Figure 2.2) In this merging of art and technology, air moved through viscous clay which bubbled on the surface. The actions of air released created sound. The sound of the action was monitored electronically. This sound would dictate the next round of released air. The cycle continued. In essence, the actions of the clay and air created the reactions of clay and air. This cycle of birth, death and rebirth was the aim of the project.

Figure 2.2 Mud Muse, 1971 (at the opening of the “New York Collection” in the Moderna Museet, Stockholm, 1973) Bentonite mixed with water in metal vat with sound activated compressed air system, 48 x 107 $\frac{3}{4}$ x 144”.

\textsuperscript{21}Teledyne Technologies is a leading provider of sophisticated electronic components, instruments & communications products. http://www.teledyne.com/.

Finally, the Bauhaus (1919-1933), school for art, architecture and design redefined education and inevitably the look of all things. When it closed, professors relocated to America, and help set the stage for we now know as modern.

According to Walter Gropius, the school believed in merging disciplines to create a “Visual Science”\textsuperscript{23} and “destroy the separations between the disciplines. It’s all one!”\textsuperscript{24}

Supported by public funds, the students worked with what was available. In workshops students made things in accordance with the nature of the material. Traditional classes were held and seemed more like laboratories and the professors seemed more like scientists. Materials were tested and even transformed to mimic other materials. Material simulation was one of the ways that the school expanded the student’s imagination. A new found adherence to old values was apparent in this movement.

Even though the Bauhaus is closed, its legacy still lives on. The Gropius Tea Service is based on simple geometric shapes. (Figure 2.3) This allows for ease of production and appreciation. The Tea Service is still manufactured by Rosenthal today.

\textsuperscript{23} The Bauhaus: The Face of the 20\textsuperscript{th} Century. RM Associates, 2004. DVD.

\textsuperscript{24} Quote from Walter Gropius. The Bauhaus: The Face of the 20\textsuperscript{th} Century. RM Associates, 2004. DVD
Functional ceramics were an accomplished fact; dinnerware, floor and wall tiles, sanitary ware and purely decorative clay works were manufactured on assembly lines. The Bauhaus paved the way for new areas in ceramic engineering and ceramic design. In pottery workshops students dug their own clay from nearby deposits, learned to throw, fire kilns, and glaze. Everything that was associated with traditional technical aspects was taught, but the students were encouraged to experiment with design.

2.2.1 Conclusion

In art, when the revolutionary spirit takes flight, there is always a period of destroying the old followed by rebuilding. Often in later stages of the coup, cherished aspects of the earlier regime are restored, rehabilitated, modernized and taken back into the fold. This is healthy revitalization—the eternal renewing cycle of birth-death-decay-
rebirth—and by its nature it is often messy, smelly, disrupting, disturbing, irreverent, even cruel.
CHAPTER 3:
INFLUENCES

Artists should look everywhere for everything. Nothing should be missed. Always pay attention, begin to ask a lot of questions and compare your notes with others. In this section, I will discuss a small section of people who influence my thoughts and work.

I look everywhere. My influences reside in areas well outside of the traditional clay/ceramic artist. Architecture, animation, concept art, and cinema, in addition to ceramics remain among the top genres that influence my work. It is with great need that I have left ceramics as the sole gauge for my work. In the end, I cannot deny all the other imagery in my memory. There is more to me and my work than just clay and ceramic history.

Visuals that flood my memory are related to my past and so I must start there. Some of my previous experience as a multimedia designer dates back well before art school. Work as a landscape designer brought me closer to nature and the complex relationship between it and structure.

I have always had a passion for the cinema since I was a child. I remember this quote well by Steve Martin, playing a character named Davis, who said: “That's part of
your problem: you haven't seen enough movies. All of life's riddles are answered in the movies…”25

An entire chapter could be written about movies which have impacted my thoughts, but there is no room. I will say that I believe this quotation. I believe it so much that my memories are filled with movie quotes, narratives, and characters. The categories of films I have collected over the years run the gamut and there are many these films that feed directly into my aesthetic of ambiguity, natural forces, and dramatic scale shift. As it happens, these elements are exactly what I look for in other mediums of art.

3.1 Andy Goldsworthy

Andy Goldsworthy (b. 1956) works with nature and natural materials as an Earthworks artist rooted in the British landscape. According to Goldsworthy, it is not a statement against the manufactured or man-made: “I have used large scale machinery and even made use of buildings in my work.”26 Goldsworthy concentrates on other matters.

Goldsworthy is fascinated with object, place and time. He says “If you spend enough time in one place, you can see a great deal of change going on around you.”27 It is not only life or death for Goldsworthy, but continuity. He does not pursue perfection


27 ibid.
in his work, but he does try to make work everyday. Goldsworthy sees all his work connected and part of a continuous momentum.

In *Ash Throw* (Figure 3.1), Goldsworthy throws ash dust into the air creating a temporary cloud in the air and a shadow on the ground. What was once volcanic rock is ground into dust. The energy from the earth transformed into something inert. The dust is similar to air now, but given a new energy when thrown. The temporal nature of material spans from geological to instantaneous.

I have been studying Goldsworthy’s work for some time. I realize that his combination of impermanent style of works and thorough documentation is possible. Like Goldsworthy, I relish the purity of working with natural and reusable materials.

![Image of Andy Goldsworthy throwing ash dust](image.jpg)

Figure 3.1 Ash Throw. Volcanic Ash. Galisteo, New Mexico. 1999.

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The soil and more specifically, clay is one of those materials that have many states before it becomes permanently fixed into ceramics. The thought of continual use and reuse of clay sets a new benchmark for my work where the outcome may vary greatly. There were times when it was suggested that I use metal in my work. As with any suggestion, I ran an experiment and observed the outcome. The results did not sit well with me. In my thought process, cured metal wire has no place in something organic in nature. Soil and plant materials share the same environment and undergo the same effects. If you observe, even daily changes become apparent.

3.2 Lebbeus Woods

Lebbeus Woods (b. 1940) co-founded the Research Institute for Experimental Architecture in 1976. He is both architect and visionary. He leaps to reconfigure organization from chaos. His primary focus is on catastrophe imbued backdrops. Sarajevo, Los Angeles, and Cuba, inspire Woods’ imagination and work. He re-instates structure from war-torn lands. Torn sheet metal become skins and houses the inner workings of his “non-spaces” or “free-space”. 29 A ‘non-space’ is a space for everyone and no one. Woods speaks in terms of ‘in between’. 30 Through Woods’ organization from catastrophe, he hits on architecture for the public with overtones of a socialist utopia. His spatial narrative, things, ideas and relationships come together in our culture

in ways that are random and arbitrary. The future, according to Woods, will only intensify the effect.

The steel and glass monuments to enlighten progress in an age of industrial society are gutted hulks, and with them the ideologies and values they embodied. Sarajevo’s city’s buildings were targets for bombs and guns. These once great structures symbolize reason and its promise of human civil life. War, sadly, is not confined to this city.

As Woods describes in this quotation, catastrophe both born of man and nature is accepted and embraced.

What is an architecture that accepts earthquakes, resonating with their matrix of seismic waves—an architecture that needs earthquakes, and is constructed, transformed, or completed by their effects—an architecture that uses earthquakes, converting to a human purpose the energies they release, or the topographical transformations they bring about—and architecture that causes earthquakes triggering micro quakes in order that “the big one” is defused—an architecture that inhabits earthquakes, existing in their space and time?31

Wood’s theory of random accumulation carries through his processes of design and fabrication. Woods develops his ideas in ever-expanding notebooks that freely intersperse small, intense ink drawings of visionary projects with studies of real buildings as well as speculative commentary. He establishes a flexible, stylistic framework for a design that invites his collaborators—modelmakers, engineers, and fabricators—to apply their own interpretations and ideas, allowing the design to evolve in unexpected ways.

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Computer-aided fabrication techniques free Wood’s imagination to any shape he chooses.\textsuperscript{32}

As in Figure 3.2, Quake City, I am inspired by Wood’s ability to see symbiotic integration with the seemingly impossible. In this case he merges his designs with an earthquake ridden harbor in San Francisco. The city as he sees it is “drawing its sinews from webbings of shifting forces…”\textsuperscript{33} He takes what becomes available and uses it. In another sense, he accepts things for what they are and dives into what they could be.

![Figure 3.2 Quake City, Lebbeus Woods. Photograph and Color pencil.\textsuperscript{34}](image)

I am working with clay. I am not using fire to transform it into something ceramic. Longevity of the ceramic object is one of many things that I have had to abandon for my process to remain pure. This purity of thought is integral to my work.

\textsuperscript{32} Albrecht, Donald. \textit{Design Culture Now: Nation Design Triennial}.


Clay is a dynamic substance and should not be made permanent. “Common clay must go through the heat and fire of the furnace to become porcelain. But once porcelain, it can never become clay again.”

3.3 Edward Burtynsky

“I went out to find the largest industrial incursions I could find and used that as a baseline.” Edward Burtynsky (b.1955) records man’s impact on the land with large format cameras. This documentation, at first glance, seems vast, but taking a closer look reveals minute human artifacts. These artifacts go unnoticed from a distance and it is only by closer inspection that they are revealed. A sublime state is achieved with Burtynsky’s exploitation of this scale. The viewer is reduced to an insignificant speck on the image. He is making comparison between human scale and human impact. The polarities, as Burtynsky sees it, are exponential. His aim is not one of morality, but rather, serves as a reminder. “Eventually, we all return to the earth and so the things we are doing to the earth, we are doing to ourselves. I look at the industrial landscape as defining who we are and our relationship to the planet.”

In his Shipbreaking series, (Figure 3.3) Burtynsky captures the dismantling of the world’s excesses in oil production. These humongous hulks of obsolete oil tankers are cut

37 http://www.edwardburtynsky.com/
and pulled apart by Indian laborers. This gargantuan task is achieved by coordinated groups who in the image are dwarfed by the landscape.

![Figure 3.3 Shipbreaking #31. Edward Burtynsky. Bangledesh, India. 2000.](image)

In Burtynsky’s visit to China, he documents computer circuit board trash heaps. It is what the locals refer to as “E-waste.” As the camera pulls out from what seems to be everyday discarded refuse, at closer inspection, the refuse is revealed to be computer circuit boards. Varying in size and shape, the boards are heated and plucked of all their

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reusable and valuable materials. At a more refined level, the boards are scrutinized under lenses and parts removed with tweezers. The heaps stretch across the land making a new horizon. (Figure 3.4)

Figure 3.4 Stills from Manufactured Landscapes Documentary. Circuit board reclamation in China.  

At Three Gorges Damn, Burtynsky, records the migrations of whole towns. Brick by brick, houses are dismantled, sorted, and hauled away to new location. The new damn will eventually flood the area leaving the townsfolk no alternative, but to relocate. These actions are all in the name of industry and power. The damn is throwing China into power surplus promoting prosperity and success for the whole country.

Burtynsky and I share a fascination with scale and environment that inevitably tied to human interaction. Formulaic requirements for powerful imagery provide decades worth of memories. These requirements usually are, but not limited to: infinite focal depth, massive scale differentiation of objects, and reference to human scale. Burtynsky

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42 Currently the world's largest engineering and construction site, the Three Gorges Dam project along the Yangtze River in Hubei province China, has displaced over 1.2 million people and destroyed 11 cities (in less than 6 months). The resulting 400 mile long reservoir will supply enough water to generate 84 billion kilowatts-per-hour of electricity.
has definitely satisfied my requirements and provides excellent compositions as well. Although my imagery resides on the abstract end of the spectrum, these variables have definitely held true in some of my other works. Moreover, Burtynsky’s captures awe to the point of suffocation and yet they are convincing. You believe, but you do not want to believe. When it happens you realize the painful truth of human excess.

3.4 Concept Artists

Concept art, not be confused with Conceptual art, is a visual representation for a final product usually residing in the movie, gaming, toy, and comic book industries. A relatively new industry, this genre is rooted in animation, illustration and industrial design. The Art Center College of Design in Pasadena, California has long since been the leader in Concept Art birthing the talents of such artists as Scott Robertson, Ryan Church, and Syd Mead.

“Man is genius when he is dreaming”

Concept artists’ ability to visualize the unmade is a rare gift. It is this ability that eventually gives hope to the masses. They base their work on what they know and continue to learn. After the shock and awe of their work has subsided, their work is met with many questions and few answers. They are inventing things that simply do not exist and probably never will. It is easy to dismiss the work as fantasy, but there is an accessibility that cannot be denied.

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Concept artists are the beyond the edge of modern thought. Scenarios containing all possibility are solved, in theory. Then again, that is all it takes. One spark to ignite thought. I look to the concept artists for imagery, narrative, and technique. I have logged many hours scrutinizing their work and methods in hopes to combine this way of working with the previous.

“In the end, art’s role is to interpret life, in the past, the present and the future.”

3.4.1 Scott Robertson

Scott Robertson, (b. 1966) a concept designer, teacher, publisher and currently, he is Program Director of the entertainment design department at the Art Center College of Design in Pasadena.

Robertson is fascinated with rendering different materials. He is in constant pursuit of accurate representation of modern and futuristic materials of differing metals, plastics and composites. During a workshop at University of Cincinnati, he explained, “These illustrations simply exist as a figment of my imagination and provide me with the subject matter for attempting to render vehicles overly shiny and colorful in an indoor studio environment.”

As Concept artists go, their business is to make up stuff. You are given criteria to work from, words that describe the scenario, and ideas are put to paper in the form of

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drawings. Once approved, the concepts usually move onto three-dimensional maquettes or virtual models.

The extent to which Robertson pursues the accuracy of his renderings is astounding. He recreates surface quality from memory and study. He takes many photographs for reference material. He analyses materials thoroughly.

As seen in Figure 3.5, Robertson pushes the boundaries of material expression. Components of his designs redefine what has become commonplace in transportation, toy development, gaming, special effects and cinema.

![Image of a digital painting]

Figure 3.5 Lift Off! Scott Robertson. Digital painting. 46

Robertson is fascinated with material and its interaction with light. I share his fascination with material exploration. I am pushing the perceptions of what defines clay.

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Through my imagery I have captured clay, but what is perceived could be fire, primordial, volcanic, migration, erosion, or nucleic--In essence the components for creation and destruction.

3.4.2 Syd Mead

Although Syd Mead (b. 1933) sees himself as a “visual futurist”\(^\text{47}\) rather than concept artist, he is fascinated with “scenario”.\(^\text{48}\) (Figure 3.6) Like so many concept artists after him, they too imagine a sequence of events and visualize an unwritten past, present or future in their work. Whether utopian or dystopian, every aspect is pursued. The timelessness of thought and possibility, as I see it, has revolutionary overtones. This abstraction of time, scale and space opens up many possibilities.

\(^{47}\) During the production work for *Blade Runner*, 1982, there was no title available that described Syd Mead’s job for the movie, so he came up with one.

Mead as a young boy is bored with what he sees. What is apparent to him is not as fascinating as the worlds in his imagination. Through his amazing ability to supplant a narrative into his renderings, his work makes sense to a lot of people. “His work is not silly, like so much science fiction.”

He designs thoughtfully based on what he knows and what he continues to learn. It has been noted by Disney Imagineers that: “If we were in a rut and didn’t know how to solve a problem, we would drag out one of Syd’s books.”

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His timing in the entertainment industry could not have been more planned. He left the Ford Motor Company after thirteen months and started his own company. Shortly after, his designs could be seen under American Steel, Philips/Eindhoven, and American Motors. The movie industry, however, is more seductive to Mead. It is here that I was first introduced to his work.

Mead is a good storyteller. Similar to good movies and books, his work encourages you to lay down your own story. It is the key to all good art. The arts are about telling stories and opening up the heart. His work has a warm humanness to it. It drives me to do something. My story is about cycles of life—a concept that is bigger than myself, but which I am a part. We all are.
CHAPTER 4:
GRADUATE SCHOOL HISTORY

4.1 Year One

At the onset of my second semester in Graduate school, my work begins to focus on the idea of “scenario.” At that time, I understand it as scenario related to the idea of architectural renderings. One element remains with me above all others—the inclusion to a proposed building “projected” in a real world setting. As Lebbeus Woods describes, “Draw architecture as though it were already built.”

I became fascinated with this idea, but at the time did not know why. I have come to discover that like the concept artists, I am foretelling a possible past, present, or future. This idea offered liberation from the traditional techniques used in ceramics and I began to integrate digital camera and digital video, in hopes to capture my scene.

I envision the hand built clay pieces as tracts of land. Cliffs, hills, and dunes are captured with the camera. I begin to incorporate human references to my composition, which I would later attribute to my fascination with scale.

John Tyler Bonner, in his book, Why Size Matters, indicates that humans need to size things up. According to humans, it is our relation to other things. Size is

important. We look for an attractive mate, we worry about new microscopic bugs that infect our immune system; and we discover new combinations unraveling the map of our DNA. We love to measure things.

“Size is the supreme regulator of all things.”

I am measuring my work, but neither work that was much larger than I could possibly build nor want to build. My work edged closer into impossibility and into virtual imagery. Each piece constructed was interpreted into a larger context. A twelve inch cubed piece size could be limitless with the use of a camera. The work became props to use and reuse. The idea of worlds being created was a possibility for future work.

At the culmination of the first year, I presented clay in monumental scale with two-dimensional still imagery. (Figure 4.1) Some final pieces ended up as photo collages which combined ceramic work with photographic backgrounds. (Figure 4.2) In the image, the ceramic work is set into human scale which became dwarfed by comparison. To set a reference for scale ambiguous human artifacts were added to the final image. In this case, a small, but recognizable metal railing system was placed at the top following the ridgeline into the cave.

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4.2 Year Two

My work started as small blocks, buildings of my past, resembling cityscapes and placed outside. (Figure 4.3) These clay pieces were low fired and thus were not as resilient as stoneware. Exposed to the elements, the city is slowly falling apart. As the first freeze hit the water captured by the porous surfaces expanded and created fissures through the surfaces. In this experiment, I witness the impermanence of ceramics and analyze the results. Every reaction is documented.
This is the pivotal moment of switching from ceramic to clay. From permanent being stoneware to semi-permanent being bisque ware and then to clay being impermanent. This logical progression kept me at the root of the material. From this point on, I only worked with clay. I fired nothing and thus nothing became permanent.

The thought of seeing impermanence in real time is literally watching the grass grow. Could I speed things up? I am the instigator upon the material. I would begin to alter time and space, but before I would get to this step, another would have to be investigated.

An impermanent object can only be re-experienced through memory. I continued to capture and document as a type of memory catalog. This compendium of images records investigations into clay and a heightened awareness of impermanence results.

In this evolution, solid clay objects become flat, paper-thin skins of clay. Thin sheets of clay are produced. What once had mass and stand up to handling is now fragile.
and breaks easily when touched. An exponential increase in impermanence is achieved, however, methods of construction needs rethinking.

In one method, thin clay skins are sprayed onto woven constructions. Skeletal in nature, these reed and cane substructures become semi-rigid bodies for the sprayed clay. Once dry and hardened the clay provides an organic, flesh-like texture. As shown in Figure 4.4, The work alludes to the animal carcass in a state of suspended decay.

Figure 4.4 Carcass. 2007. Woven reed and cane encased in clay. 6 x 7 x 5’

In another method, clay is sprayed, coating a plastic sheet on the ground. After several coats and drying time, the clay skins are gathered often times breaking at weak points. Once dry the clay peels off the plastic. These shards of clay skins, by the nature in which they broke, dictate the way in which I would construct. As seen in Figure 4.5, multi-layered concretions in the form of crystalline, coral, and mineral deposits informed the architectural methods.
In both of these methods, the clay would remain unfired; impermanence and thus its ultimate reuse still contenders for the work’s main themes.

4.2.1 Digital Sampling of Clay

I have been documenting my work for some time. Using these images, my work may manifest itself in numerous ways. The documented image becomes a final piece with emphasis on ambiguity, scale and decay. This not withstanding, it occurred to me that I could start to create visionary worlds in the vain of Concept artists such as Scott Robertson and Syd Mead.
In this new series, I build pieces that eventually become a catalog of forms. The thoughts behind the forms include: organic, cracked, decayed, lumpy, growth, earthy, woven, matrix. (Figure 4.6) These forms are documented individually as digital images. An impression of the clay object is now captured as a two dimensional image.

![Form Grid Sample. 2007.](image)

New work rests on a foundation of clay pieces of various sizes. Many methods are used to create a catalog of around a hundred forms. Materials used to create the constructs include: clay, paperclay, reed (1mm-1mm dia.), and bamboo cane (3mm – 7mm dia.). Works documented in previous semesters also became part of the catalog of images.

Using my knowledge with some computer imaging software, I used these images as brushes. Now, a traditional painter may use a particular brush to achieve a certain
stroke on canvas. In place of brush and paint, I use image and pixels. Drawing with an image is possible. As seen in Figure 4.7, one of the images is analyzed for use. Within the program you are able to adjust your brush settings for opacity, rotation, and frequency among others.

Figure 4.7 Brush Test. 2007.

With this new ability, I created worlds out of the essence of clay. Its most relatable characteristic—its surface texture—became the medium (Figure 4.8).
The compositions from this digital medium sprang forth usually as abstraction. It is my interpretation of creation and destruction scenarios. These works were presented as large scale prints and multi-layered transparencies. (Figures 4.9 – 4.11) These images showed dynamism on massive and minute scales, but they were static prints. For all I did during this second year, another element from my past was begging to be included—movement. I therefore, sought out to incorporate motion into my next series of works.

Figure 4.8 Construct 046c. 2007.
Figure 4.9 Construct 047. 2007
Figure 4.10 Construct 044. 2007
Figure 4.11 Construct 031. 2007.
5.1 Clay Tile Wall

“Clay. It's rain, dead leaves, dust, all my dead ancestors; Stones that have been ground into sand; Mud; The whole cycle of life and death.”

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In most instances, we as artists are expected to push forward into new horizons concerning our discipline. This is understood by most of us to be the way it is without question and thusly pursue such a course.

Every time that I have created something outside the norm of traditional clay vessel, it has been met with rebuttal. A common response is “this does not look like clay to me” or “this does not remind me of clay” or “I did not know clay could do this”. Though I may go beyond clay traditions, the reference is always toward the material.

In the past, I have had trouble explaining my work and thus, it has been misunderstood. The viewer cannot connect with me or the work. It is important that the viewer sees my choice of material as clay, a constituent of soil. I have spent the past sixteen years observing the soil and want the viewer to be as familiar with the material as I have been. With this thought in mind, I have chosen familiar imagery to invite the viewer into my work.

57 Martine Vermeulen. On her pottery, NY Times 3 Dec 75.
The viewer is invited into the space with a comfortable image of what clay is—cracked and dried. This sight is familiar because clay is imbedded in our history. Today it is more likely familiar through file sharing of imagery over extensive communicative devices. Before this, however, there is another instance when we, as youngsters become observers. We go outside to play or work and observe the natural world. This is a common experience in which we test the boundaries of the nature and ourselves.

The gridded tile configuration (Figure 5.1) also is familiar because it refers to a modern way of life. We protect the floors in homes and want them to be aesthetically pleasing as well. This grid pattern is control, but the cracks are uncontrolled. Clay shrinks when dries and this cannot be stopped.

![Figure 5.1 Gridded tile wall with Engobe Vial Display, Snite Museum of Art, University of Notre Dame, 2008.](image)

The tiled clay wall facilitates an interpretation of organized chaos. The molded clay shape is created when the clay was malleable and wet. Exposed to the air the clay is now losing the water through evaporation. As the particles of clay and water become separated, the spaces in between them remain open and begin to get bigger. The particles
of clay start to shrink and cracks in the surface start to develop. Eventually small cracks give way to broken sections. What was once whole is now in several distorted shards. These are held in place mechanically to a vertical structure affected by gravity and pressure—change.

This dried clay will remain. The common occurrence of wet and then dry has been going on for millennia. Now there is the other half of this equation—wet clay. This state of clay in liquid form is referred to as an engobe. This viscous material is the consistency of cream or yoghurt. By sealing the engobe from the elements, it is kept in a dynamic state. Like the clay wall, it is also constantly being affected by gravity and pressure—change.

5.2 Vials with Encased Clay Engobe

As seen in Figure 5.2, a small glass vial (30 x 82mm), is filled with an earthenware engobe encased in silica gel. The gel keeps the engobe sealed. Within each pocket of trapped material, the state remains the same, unaffected by the outside elements. The engobe does not dry out. Over time however, the clay particles being heavier than water settles to the bottom, but does not undergo any other physical change.
Figure 5.2 Clay Engobe in Vial and detail. 2008. Earthenware engobe, Silica gel, Glass Vial. 30 x 82mm

It is in this state, affected only by gravity and agitation that I have documented. Clay and water in combination, reacting to each other.

5.3 Clay Translation into Image and Video

From the lens of the camera to the encased clay engobe in the vials, separation from the clay is paralleled throughout my work. This separation, not unlike a laboratory, refines the subject to one of analysis and observation. The camera lens is the bridge between my analog and digital work. Since I began my ceramics career, I have wanted to merge my studio work with my digital work. Both hold permanent stations in my history.
and are not mutually exclusive. I am experimenting with the parallels between particles of clay and pixels of data. Each side of this equation informs the other.

The clay wall is the entry into the thesis. The video of the encased engobe serves as the body of the thesis. With the encased engobe, the lifecycle of the clay is in constant stasis. Agitating the clay changes this stasis to motion. This motion of the changing clay particles is documented. The engobe captured in digital format is suspended process.

The displayed videos are looped, perceived as also being in suspended process. This continuous presentation reveals the “in-between” states of clay. Each video piece is generated from multiple layers of still and moving elements. Combined, these elements provide infinite compositional possibilities. Generative art such as that of Joshua Davis rely on computer programming to aid composition development. As seen in Figure 5.3, these compositions based on programmed systems have infinite possibilities.

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58 Joshua Davis is an illustrator, designer and programmer who has worked for clients such as BMW, Nike and Lucky 13. www.joshuadavis.com
A soundtrack introduced to the work assists in encompassing the viewer into the composition. Through headphones, this stereo experience references body, mind, and celestial perceptions. This “organic soundtrack” was collaboratively composed with artist Ben Good. The recorded sounds were done in the field and include sounds of footsteps on dirt, snow, thunder, wind and rain. As Ben noted,

When I saw your footage, I instantly related these particular recordings to your work and how I viewed it and ultimately by how you spoke of it. Some sounds are a combination of each other and modified to fit each video piece that I was given. I cut, sampled, repeated, layered, equalized and mastered; Sometimes putting each through this process multiple times to achieve a fitting result. Along the way, I tried to connect or make a direct connection between the organic and the systematic much like your relationship between clay and digital media. So at times the sound changes...I viewed it as the further away I felt from the image the

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59 www.joshuadavis.com

60 Burtt, Ben. Editor/Sound Designer, Lucasfilm Ltd. From documentary: Empire of Dreams, 2004. In this documentary Burtt explains that he and George Lucas were after an “organic soundtrack” when applying effects to the Star Wars movies. As a result, Burtt went forth to record sounds outdoors from nature and animal.
more organic the sound, and of course the closer to the particles and inward the image the more rhythmic the sound became…much like looking into a microscope.  

The video displays are viewed through personal and portable DVD players mounted on the wall. (Figure 5.4) This intimate experience is one that I have been after in all of my work; intimate in the sense of one’s awareness. The viewer is aware of their relationship to what they are viewing and hearing. Counter to the intimate qualities of the DVD presentation, an opportunity to use a theatrical presentation evokes an entirely different quality for the viewer.

Figure 5.4 Clay wall and DVD installation, Snite Museum of Art, University of Notre Dame, April, 2008.

5.4 The Digital Visualization Theatre (DVT)

The Digital Visualization Theatre (DVT) is three hundred sixty degree domed hemisphere theatre. Two projectors and ten dual core processors divide, control and project movies into the concave area of the dome. Reminiscent of a traditional planetarium, the upgraded hardware offers many more possibilities. The dome can

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61Ben Good, MFA. Ben is a sculptor, painter, and sound artist who integrates material, found-object, paint and sounds since 2001.
project in real-time three dimensional spaces while offering 7.1 Surround Sound quality. The DVT is located in the Jordan Hall of Science at The University of Notre Dame. (Figure 5.5)

Figure 5.5 DVT, Jordan Hall of Science, University of Notre Dame.

The DVT collaboration began as a meeting with Anne Marie Conrado (Assistant Professor, Industrial Design) and John Slaughter (DVT Technician). The DVT provides an encompassing space to literally, take the viewer inside projected work. In my case, the viewer becomes enveloped in the work experiencing the space and state of clay in motion. As an abstraction, however, the movie can be interpreted as the cosmological or the microbial. Planes of video and stills move as tectonic plates, moving fluidly and violently against each other.

Video elements projected on large scale have in the past been, monetarily speaking, out of my range. Though the DVT collaboration was not vital for completion

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62 A multichannel sound technology that features 7 channels of sound in the left, right, center, left surround, right surround, left rear, right rear positions. 7.1 systems also have 1 channel for LFE (low frequency effects) which is usually sent to a subwoofer.
of my thesis, it affords me the opportunity to pioneer future collaborations with the Department of Art, Art History and Design. It is a true merging of art and science.
CHAPTER 6:
CONCLUSION

The culmination is the video, but it is not without taking the sum of its parts. My goal has always been to combine my disciplines into one cohesive body of work. With a background including Horticulture, Landscape Design, Multimedia Design and Ceramics, my work has paved a concept around a system of lifecycles. This concept is universal and through the use of scale, abstraction, movement and sound, I have achieved not only new visuals for clay as material but for the nature of our own existence. (Figure 6.1 – 6.3)

Figure 6.1 Detail still from untitled sequence, HD video of engobe, 2008.
Figure 6.2 Detailed still from untitled sequence, HD video of engobe, 2008.

Figure 6.3 Detailed still from untitled sequence, HD video of engobe, 2008.
As one viewer commented during the opening reception, “I was encompassed by the universe.” The truth is this: The universe includes everything from the smallest nano particle to the largest celestial body; they are all connected. Though thought of as mundane to many, clay is one of many necessary elements for life on earth. I have re-connected to clay as material, texture, and primal substance. With an ambiguity in scale, the imagery is perceived as both microscopic and cosmologic. “A rhythm develops which can be seen zooming into and out, from the smallest to the largest of things in the universe.”

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63 Unknown viewer comment at the opening reception for the MFA/BFA Exhibition, 2008, Snite Museum of Art, University of Notre Dame.

64 The Powers of Ten (Vol.1). Charles and Ray Eames. 1968


