ABSTRACT

Title of Document: METHODS OF MAKING

Benjamin Lock, MFA, 2007

Directed By: Department Chair, Professor, John Ruppert, Department of Art

I am drawn to tools, their applications, and the way things work. The action and process of manipulating and transforming material to create formal visual statements is vital to my sculpture. I utilize and respond to material and process, allowing for the work to develop through its creation. Relationships of form and space interest me. Not only do I find beauty in material, it also exists in the tension and the power of a space within or between forms. These interactions in my work help formulate the visual language through which the metaphor is present. I hope to capture and express a sensibility to which one can relate.

This thesis will further discuss the manner in which I make sculpture. It will be a compliment to the artwork and an attempt to put to words the conceptual basis for the forms I create and the spaces they compose.

METHODS OF MAKING

By

Benjamin Lock

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Master of Fine Art
2007

Advisory Committee:
Professor John Ruppert, Chair, Department of Art
Associate Professor John McCarty, Department of Art
Associate Professor W.C. Richardson, Department of Art
Professor Foon Sham, Department of Art

Table of Contents

Chapter 1: EARLY INFLUENCES

I have been working with metal since I was a kid. Growing up in a small town in upstate New York, I spent a lot of time in the garage and I was always around tools and equipment, mostly related to cars. My father was a mechanic and owned a garage in the backyard. Cars and trucks from the thirties through the sixties surrounded me and captivated my interest. The sleek and sexy body styles of the street rods and muscle cars emanated power. With long noses and rolling fenders, the flowing shapes and lines of those cars had an influence on me.

I learned how to weld at a young age. My involvement in the repairs of my fathers street rod taught me how to work with metal and do body work. At age fourteen I got a 1966 Plymouth Barracuda, and though this car was pretty beat up, I was excited and committed to fixing it up. I took that car apart about as much as possible with no idea of how much work I was getting myself into. Slowly over the years in high school and into college I worked on the Plymouth; it was a project that gave me a focus and taught me so much. I learned about materials and tools and the different processes involved in fixing and making. I realized the potential of, and attraction to, working with my hands, as well as the commitment required to make something.

Art has always been a part of my life. Mostly drawing and painting as a child, and then into ceramics and photography in high school, all the while continuing to work in the garage and on other construction projects and jobs. In college I was able to connect my interests in art with my interests in construction, cars, and metal work and I was immediately drawn to the metal studio. I explored other areas and

mediums but in the end found myself focusing on sculpture, bringing all my interests of making and creation together.

The work I made during my undergraduate career was an exploration of materials and processes. It was very formal and dealt with combinations of materials. Eventually I was making forms using steel and concrete with a strong focus on interior spaces. The surrounding landscape greatly influenced me in college. Plattsburgh State University is located in upstate New York on Lake Champlain near the Adirondack Mountains. I was constantly in the mountains and on or near the lake. The power and beauty of the natural landscape was an inspiration to me. The presence of the mountains and their calm, powerful, being, was comforting. This sense of place and the power of nature continue to influence me.

Chapter 2: FLUIDITY AND FIT

Some of the first sculptures I made in graduate school continued my exploration of the use of concrete. I was interested in the formal potential of concrete through mold making and casting the material. By casting concrete, I could create any form utilizing the fluidity of the material, and the work developed into a series of block forms with impressions. The impressions were created through the use of fabrics. I stretched the fabric over steel forms, wet it and poured the concrete over the stretched forms. When the concrete cured, I could remove the flask and steel forms and peel out the fabric. The fabric allowed me to cast over objects without undercutting the form; it also gave me an incredible smooth texture with wrinkles and creases. I was interested in the ability to manipulate this material as a liquid and form it into a solid that had such softness and sensuality. The concrete forms are evident of process and give the viewer a sense of their history.

I enjoyed the softness and sensual nature of the impressions, and the material, but felt they needed more, so I began developing forms off of them. I cast wax into the concrete impressions and cast the wax in bronze and iron. This generation of cast forms from cast forms was exciting and would lend itself to the creation and direction of a lot of my subsequent work in graduate school. I enjoyed the ways in which the two forms would relate to one another, and how a perfect fit could be attained. I started to become more aware of the fit of the parts and the dynamic potential of the space between them. Ideas of spatial and formal relationships would continue to direct my work.

My interests in the potential of material fluidity, as well as metal work and construction, led me to metal casting. Casting metal has similar conceptual process aspects as concrete, but with more potential and excitement. The process of melting and pouring metal requires much more effort and power. It is an event in which a material is transformed from solid to liquid through intense heat. I feel a spiritual connection to nature and natural forces through casting metal, especially iron.

Iron is abundant in much of the natural world. Temperatures exceeding 2800 degrees Fahrenheit are required to melt iron. The process of melting and casting iron is a collaborative event. It possesses an instinctive primal quality based on the attraction to fire and power that I believe brings people together.

Mold making and casting became integral to my work. The construction of sand molds and pouring metal is an art in itself. At this point in graduate school, I wanted to move away from the block form and explore mold making and metal casting even more. I made a series of spheres out of bronze, iron, and copper. The sphere series dealt with the purest form and negative spaces within it. Spheres are elemental forms, bringing to mind the planets, our moon, and the sun. I felt connected to natural powers and materials through this work. Each sphere has a distinct negative space. I wanted there to be an invitation to explore the form, material, and space. Mold making and casting metal continue to be vital to my sculpture. The act of making molds and casting metal is a rewarding process that requires problem solving, purpose, and function. Purpose and function are elements existing in the processes of most of the work that I make. I became very focused on

the process of creating sculpture, and questions as to how I could illustrate characteristics of the process in the finished work became an issue.

With exploration of processes and materials happening, I turned to the earth as a material. The red earth of Maryland was something that I had never seen before and I was drawn to its color, consistency, and potential as a material. After some experimenting with the red clay, I uncovered its potential as a fluid material. I would start with a dry mix, sift it, and then mix in water. The mud could then be piled or spread with my hands or tools in many ways. Over a couple of weeks the mud would dry out and crack. The cracks were very beautiful and the pieces it would separate into were left with a strong line between them. I found that this related to some qualities of the work I was doing before with other materials. After the mud had completely dried, I would crush it back into a powder. This was one of the most rewarding aspects of working with that material and process. I explored some video with the next mud piece. This video consisted of piling mud and using my arm to repeatedly push a steel trowel-like tool through the pile. The direct relationship of myself with the material was apparent in the video. I then shot some footage after it dried including close up video of me crushing the dried mud with a heavy steel pole. Though violent, I feel it illustrated the poetry of transforming the material from mud to dust as well as my involvement with it.

Chapter 3: CONTAINMENT AND SPACE

The use of different processes and materials gave me better understanding of how I worked. Concepts of containment became apparent which led me to start working with steel in a manner more focused on this concept. My love for steel work and metal casting began to merge. In an effort to work formally and functionally with steel, I incorporated cast metal into the steel. I would make a steel form with a large void within it and cast molten iron, bronze, copper, lead, or aluminum into it. I was focused on being very direct with both processes. The steel forms needed to be functional so the welding became more necessary. This process gave me the opportunity to skip the sand mold and go straight to the steel. The directness of casting metal into metal was rewarding and permitted the creation of raw forms. I enjoyed the functional mindset and feel that this work was evident of process and the history of making. The work evolved and eventually I was utilizing the steel in a manner of containment for multiple pours. The steel mold and cast metals were displayed together illustrating the process and their spatial relationships.

The steel mold casting processes lead me to the use of wood and reactive molds. These sculptures explored the use of wood as a container for cast metal. I created wooden forms that focused on a negative space or void. Combining the wood and resin-bonded sand for sand molds, I constructed hollow spaces into which I cast metal. This event was less predicable than the steel molds and allowed me to set up a situation and leave some aspects of the result to chance. Of this wood mold work, I feel that the iron casting is the most successful. The iron form was created through the use of laminating multiple sheets of three quarter inch plywood. I made a

rectangular form out of wood with an opening into an interior void, surrounded the wooden form with resin-bonded sand as well as filled the void to create a sand core. There was half an inch of space between the interior wall of the wood and the sand core in which molten iron was poured into and the wood burned out. This process left me with a hollow iron cast form with an intense burnt wood texture on the exterior. Creating reactive molds helped me to explore the questions I had about illustrating process in the finished sculpture. Some of the process was visible in the finished work but the entirety of the event was not apparent.

My interests in form, material, and spatial relationships continued to develop in the steel work I was doing at the same time as the reactive wood molds. I had purchased a cutting tip for my oxygen and acetylene torch that was able to cut through five inches of solid steel. This tip gave me potential I had never had before when working with steel and through the exploration of this new torch tip I developed a series of three small sculptures made from steel and cast lead. The sculptures consist of three pieces each, two similar two-inch steel plates sandwiching lead forms. The steel plates are cut with my torch leaving the striations of the cut as an edge and each piece has a subtle lean to it that coincides with its partner. I became very fascinated in the ways in which the two steel chunks could relate. The space in-between the forms was strong and simple. I constructed molds using thin steel around the space and cast lead into the voids between the steel chunks. The result was the two steel chunks wedged apart by the lead form. The pieces are adjustable creating the possibility for change. The creation of one form off the creation of another form has been apparent in previous work and continues to direct some of the

forms I make. Through this process I set up a situation in which I am able to respond to the forms and the process. Essentially I create the process, which continues to create a process, which lends possibilities. I continued with this attitude toward creating forms using wood and resin bonded sand and cast an iron cone that related to a negative space in a wooden form.

Scale was becoming a more critical issue that I felt the need to recognize and explore. I had worked at a large scale in the past but most of the work in graduate school was medium or small scale. Though small, the forms and the materials encompassed a monumental scale. I had explored large mold making for cast metal and concrete sculptures but I wanted the work to be more physically engaging for myself, and the viewer. This thought process led me to evaluate what I had for material and think about what I might need to make that happen.

Chapter 4: THESIS WORK AND FUTURE THOUGHTS

I have always been a collector and scrounger. I reuse materials and forms. The history of an object or material can lend many possibilities. I acquired a fair amount of half inch steel plate my first year of graduate school and was using it up a little at a time. I was also able to get an old air compressor tank I knew I could use, and with these forms in mind, I started to work out ideas through drawing, cardboard models, and small-scale steel sculpture. A similar language was becoming more present in all my work. I was focused primarily on simple forms encompassing hollow interiors. I was also working with pairs of forms, with an awareness of the space between them. There are characteristics present in all the work that deal with the handling of material, space, and relationship. I was also still interested in illustrating evidence of process through the work.

The increase in scale required larger material. I started to use plywood again due to it's availability, cost, and scale potential. This was a struggle at first, plywood doesn't have the material qualities I usually respond to and enjoy, but I was able to find the right approach with this material. I started constructing simple angular geometric forms that related to the steel and lead sculptures. These forms have subtleties that remove them from rigid geometry. I am interested in the slight curves the wood offers me. There are two forms that relate to each other through similar characteristics of form, material, and surface. The posture of the forms allows for them to be in conversation. These wooden constructions are cut, screwed together, and planed down on the edges to get a smooth, tight fit. I make use of the most warped pieces of three-quarter inch plywood from the building supply store. Using

bondo provides me the opportunity to work the edges and hide the screws and seams. I view the surface of these forms to be constructed, and a necessary component in the process of making these sculptures. The application of the bondo removes the immediate qualities of the plywood and illustrates some evidence of the making. I use paint to see the surface and locate imperfections. Sanding the surface of the forms provides a softer air to the piece. I enjoy the physical and aesthetic lightness of these forms, and the ways in which they relate to each other.

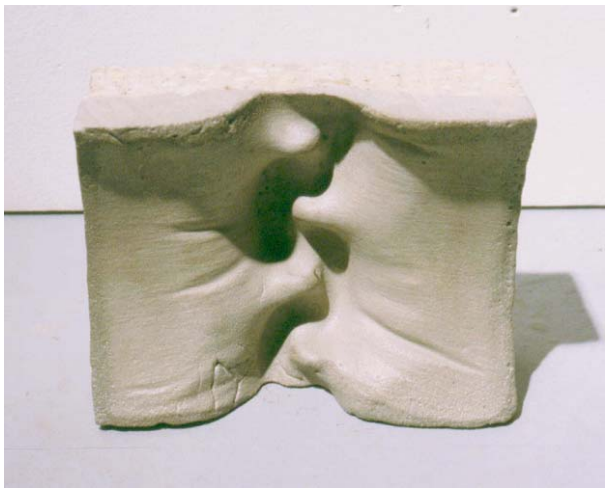
Working with plywood allowed for quick, inexpensive construction of lightweight forms. Though this process worked well for me and had its rewards, I found that I would consider these wooden forms patterns instead of sculptures on their own. Patterns relate to metal casting, they refer to the object the mold is made off of. Naturally I became interested in making a mold of a wooden form and then casting it in iron. After finding the right scale for the piece, I created a wooden form similar to the other two and made a sand mold of it. The wood was removed and the mold was poured in iron. I included a sand core in the mold and the form is hollow. There is eeriness to the darkness that the hollow form possesses. Iron gives the sculpture a darkness and weight that the wooden forms don't have. The second component to the pair is a resin bonded sand cast interior from the wooden form. It is the core of the piece, a cast of the negative space in the iron form. The material helps it to relate to the process and the form creates a relationship between the interior and exterior qualities of the sculpture.

Through drawings, models, and small-scale steel sculpture, I was able to work out some formal issues before beginning the fabrication of the steel sculpture. I

utilized the steel tank and half inch steel plate I had collected. The sculpture creates a deep dark void within the proud directional form. My focus for this sculpture was to create a massive, heavy, volumetric form that could be physically engaged by the viewer in a manner that invites and directs attention to the opening. The space is inviting yet uncertain, giving the form a sense of vulnerability. My scrap materials provided me surfaces with history and I tried to take advantage of these qualities and work them into the evidence of the process required to create the sculpture. I feel that this gives the piece an enduring quality.

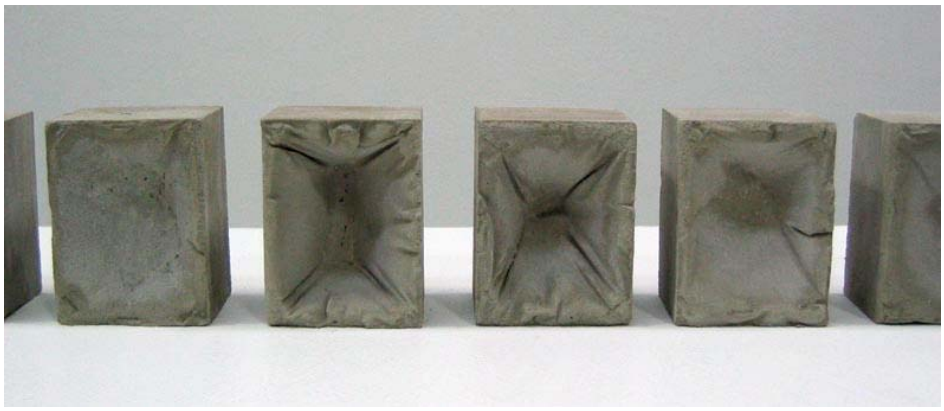
In a continuous search for more, I would like to expand into larger spaces with my work. I want to continue to create sculptures that physically engage me through their scale, and invite involvement with their interior spaces. I hope to push the creation of the object, and move outward into the creation of place. I am interested in making sculptures that work with the earth, creating negative spaces in the ground that can be entered. I feel that the work in the thesis exhibition is beginning to head in this direction. I will begin to fulfill these ideas once I can work more permanently with the ground.

APPENDIX OF IMAGES: DIMENSIONS MEASURED IN INCHES



Title: untitled
Material: Concrete
Dimensions: 7 x 10 x 3
Date: 2004

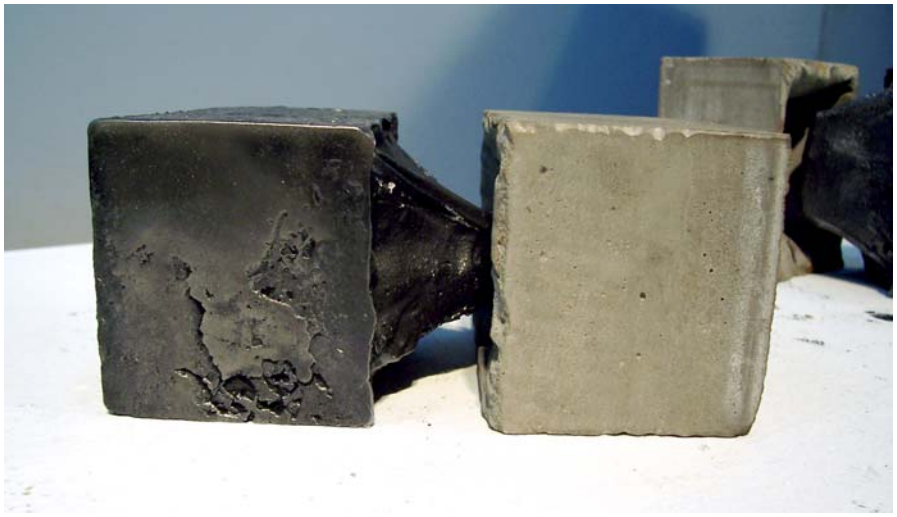
Title: Internal
Material: Concrete
Dimensions: 28 x 14 x 16
Date: 2004



Title: Empty Impressions
Material: Cement
Dimensions: 4 x 3 x 3
Date: 2004

Title: untitled
Material: Concrete
Dimensions: 48 x 40 x 32
Date: 2004

Title: Curvature
Material: Steel/ Concrete
Dimensions: 57 x 32 x 28
Date: 2004



Title: Fit
Material: Iron/Cement
Dimensions: Variable
Date: 2005

Title: Passage
Material: Bronze
Dimensions: 8 x 9 x 9
Date: 2005

Title: Notch
Material: Iron
Dimensions: 17 x 17 x 17
Date: 2005

Title: Cluster
Material: Copper
Dimensions: 3 x 6 x 6
Date: 2005

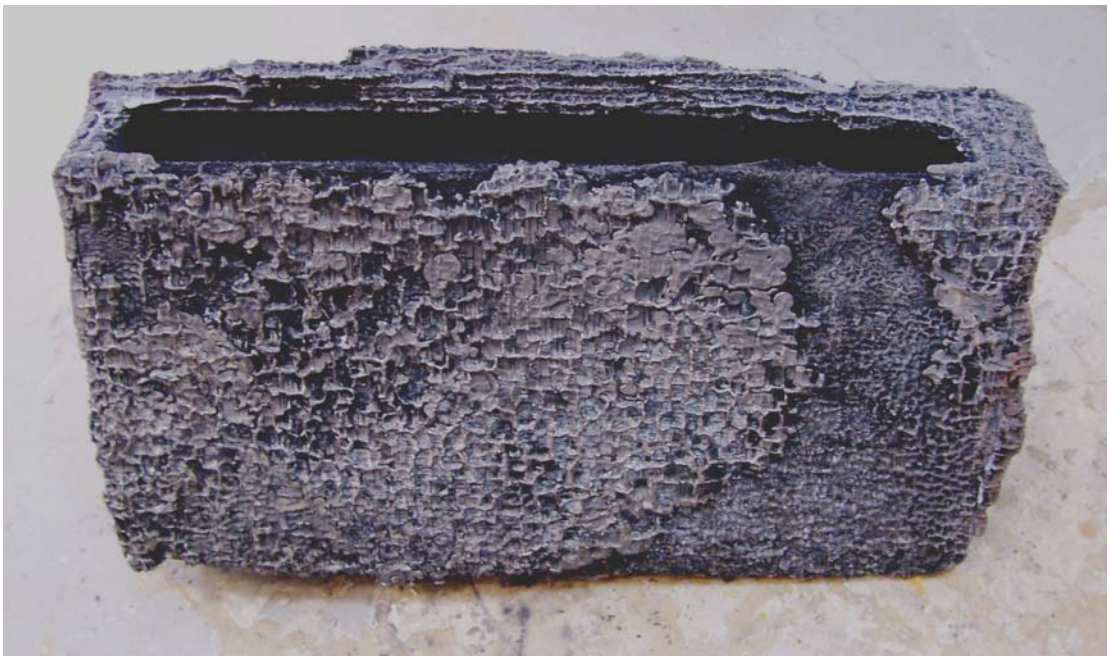
Title: Mud Work
Material: Maryland Clay
Dimensions: Variable
Date: 2005

Title: Sunk
Material: Steel/Iron
Dimensions: 27 x 33 x 17
Date: 2005

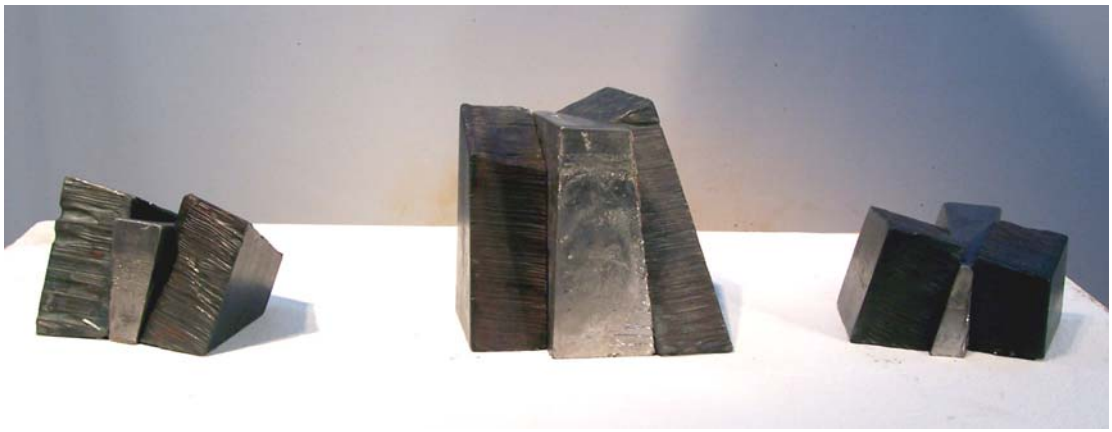
Title: Wedged
Material: Steel/Iron
Dimensions: 18 x 15 x 20
Date: 2006

Title: Chamber with Wedges
Material: Steel/Copper/Bronze/Aluminum
Dimensions: variable
Date: 2006

Pouring Iron Into Wooden Trough Mold
2006



Title: Trough
Material: Iron
Dimensions: 18 x 16 x 43
Date: 2006



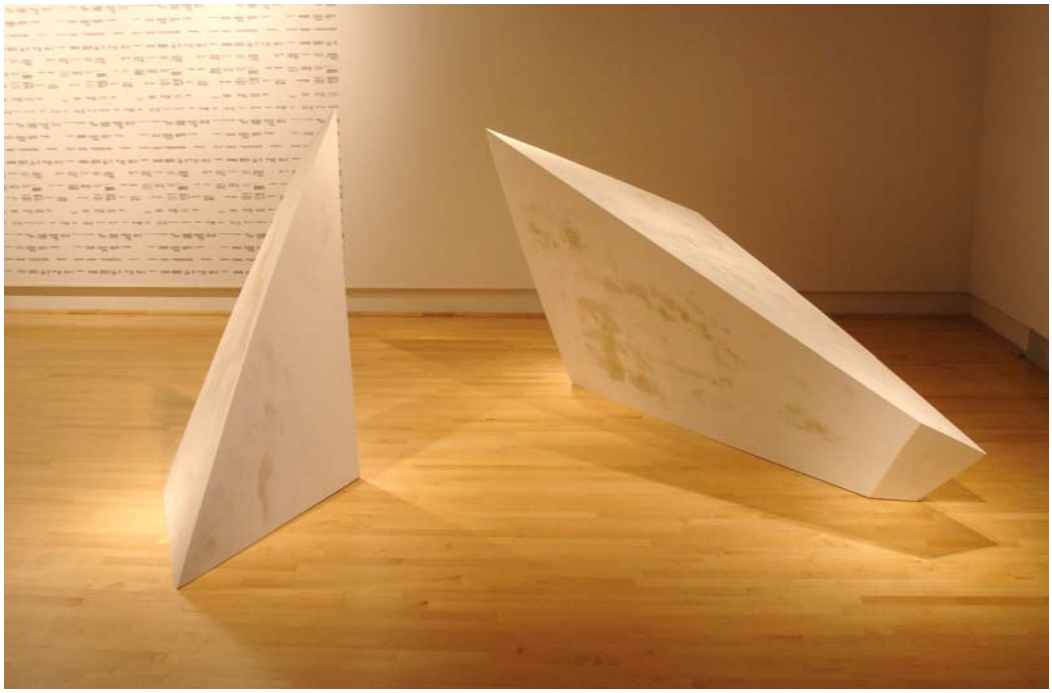
Title: Split Group
Material: Steel/Lead
Dimensions: variable
Date: 2006

Title: Split
Material: Steel/Lead
Dimensions: 6 x 5 x 7
Date: 2006

Title: Vessel
Material: Steel
Dimensions: 58 x 59 x 31
Date: 2006

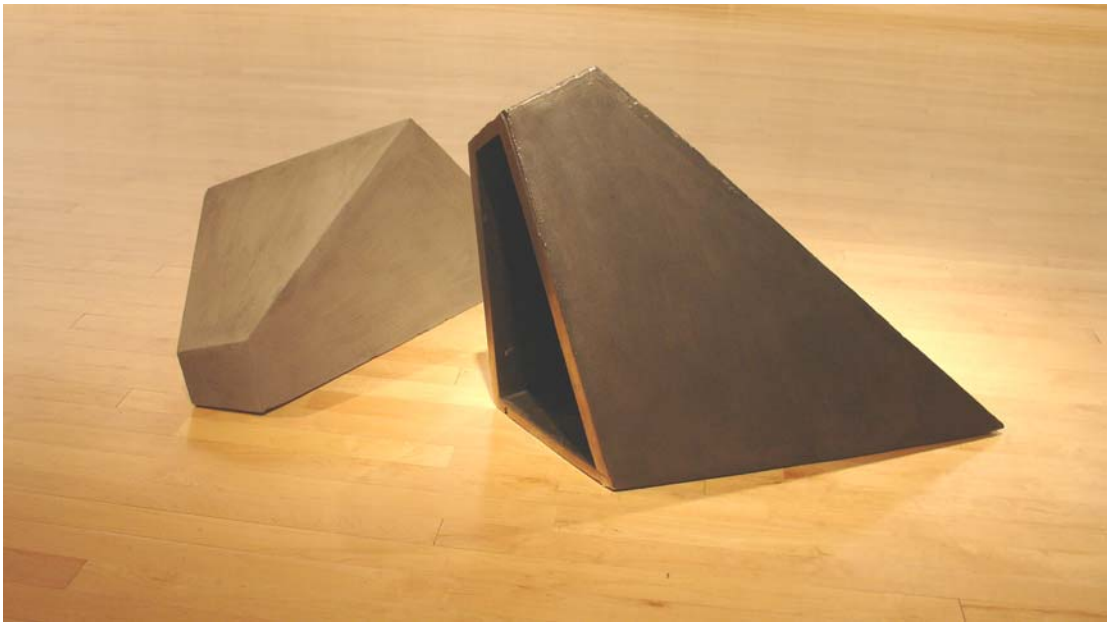
Title: Cone Plug
Material: Iron
Dimensions: 20 x 19 x 26
Date: 2006

Title: Slip Between
Material: Steel
Dimensions: 20 x 18 x 10
Date: 2006



Title: untitled
Material: Wood, Bondo. Paint
Dimensions: large 48 x 106 x 44, small 41 x 54 x 32, variable as pair
Date: 2007

Resin Bonded Sand Mold
2007



Title: untitled
Material: Iron/Resin Bonded Sand
Dimensions: Iron 22 x 24 20, Sand 13 x 31 21, variable as pair
Date: 2007

Title: Shift
Material: Steel
Dimensions: 88 x 86 x 32
Date: 2007