Garbology:
The Beauty of the Items Left Behind

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Thesis Committee

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Abstract

The constantly overlooked debris left behind from industry is the basis of this thesis. I will discuss how these massive piles of wreckage that remain after the demise of buildings in our urban landscape play a part in my current sculpture and how they reflect back on my earlier investigations of the human viscera and of our own remains. My interests lie not only in the similarities of the functionality of these two systems, but in their aesthetics as well.
Introduction

Glass is naturally a beautiful material that easily hides the ability to be sharp and jagged behind a shiny, smooth surface. Since indulging myself into the world of glass art, I have rarely been attracted to the natural polished appearance of glass. The qualities that compelled me to use glass for this body of work was the unlimited amount of surface textures and colors that could be utilized, while still retaining transparent, fluid and rigid properties.

Before becoming involved in the arts I studied life sciences – particularly mortuary sciences – were I was influenced greatly by the unusual colors and textures of the human body and its various systems. This introduction to the unfamiliar was the experience that sparked my curiosity to explore the myriad of colors and surface techniques that glass has to offer in search of the ability mimic the natural aesthetics of the viscera.

Before my graduate studies I often made artwork that directly reflected my interests in the workings of the human body. Past works titled, “Personality” and “Vital” were direct reflections of the human viscera, which were made using the flameworking technique in glass. Other works such as “Digestion” were farther removed from identical representations; this piece consisted of a four chambered glass piece that resembled an abstracted human intestine and was then carefully layered in pig intestine. I wanted the viewer to be able to look in and discover the texture of the pig intestine through the transparency of the glass.
My primary focus is on industrial systems that most closely correlate with those of the human body. The branching network of tubes that work together to guide waste removal along with the wires that regulate the circulation of energy are of particular interest to me. After the demise of a building, the industrial vein-like tunnels are excavated, and the interior is exposed to the exterior. Although I recognize the sculptural beauty, the juxtaposition of a building’s “innards” resting in a pile in the open air has always caused me to feel curious and uneasy.

There is a pleasing aesthetic found in the mounds of waste and heaps of twisted and coiled conduits. Their surfaces have become aged, warped, discolored, and it becomes a palimpsest that tells tales of their history and provides a view of their scars, much like a human’s skin. Now in a new environmental context, they continue to interact and react to one another in a new way. To me, these objects are artifacts of urban history. Displayed in a new light, this “garbage” became something more, something collected, a precious relic.

The installation of this body of work reminds the viewer that behind the architectural facade, they are completely surrounded by these connective systems that allow the conventional operations of our world. By creating and displaying these typically hidden objects they are now pulled to the exterior to be viewed as a relic, as a moment in our urban history that has been rescued, preserved and eternalized as a modern artifact.
The Work

“The sewer is the conscience of the city. All things converge into it and are confronted with one another.” –Victor Hugo

How do the mundane reach the status of art or artifact? In history museums we see objects such as bricks that once lined the original streets of our country and that laid the foundation of what America is now. Over time, the surfaces of these objects have become a palimpsest revealing the history and journey that they had endured. The bricks that lined the first American streets reveal a patina that tells a tale of every foot, hoof, and carriage that passed over its surface on a journey to build America.

You see the pipelines that were used to deliver the first drop of water to a building or structure that housed life or industry. When these objects were designed they were not thought of as anything more than a tool to serve a purpose, although only one hundred years later these objects are excavated and their creators silently praised. The objects themselves are displayed for thousands of curious minds to dissect and romanticize about what the times where like back then or how the ancient minds came to invent these solutions to solve their existing problems. Consciously or subconsciously, they looked to the human body to help.
In the work *Urban Artifacts*, I began to reference the modern display of ancient relics and objects commonly collected by museums. Often artifacts are displayed in museums of history with custom formed hooks which allows the viewer to see the object in the round and with no distracting displays. Borrowing that particular technique, each article in *Urban Artifacts* is held up by a small black steel rod that penetrates the wall. The objects are suspended away from the wall and give the viewer ample space to take in the texture, color, form and shadow of each individual work.

While researching, I was also inspired by the work “Artifact Wall” by William Morris, in which he took a fifty-foot wall and filled it with forms that reference relics of his Native American heritage. I felt that the overwhelming amount of objects he displayed actually made it too difficult to digest and appreciate each individual object. It became important to me that each object on the wall had the ability to be viewed and appreciated as a separate part. Unlike the tubes you may see piled on top of each other on the side of the road at an abandoned construction site, I wanted explode enough space between
my artifacts to call special attention to each one.

Many of today’s objects are meant to survive only a limited amount of time. During their creation in a factory setting some of these objects will never be used due to imperfections or quality control. If an object does pass inspection it is only a matter of time before it reaches its expiration date. In my work titled *Rejects* I focused on these discarded objects.

I created a pile of deformed and broken tubes to evoke the idea that these are the ones which did not pass inspection or may have made it into the field and failed. It is intriguing to me what time, gravity, and nature can do to a manmade object as well as to the human body. For instance, a reticulated hose that drains water from a rooftop for several years may have a bend that is too tight to allow the water to escape fast enough. Over several years this hose will eventually swell, distort, and eventually burst. This is true also of the human stomach, starting as a small sac that can stretch to accommodate the intake of food and overtime it can become enlarged due to excessive consumption, build up residue, or tear.
Throughout my research I became fascinated by landfills and trash that had been compacted. Both remind me of sedimentary layers of rocks and of the earth. These layers of earth and of trash hold the key to the narrative and history of our world. The scientific study or archaeology of waste is known as “Garbology.” The term is used to describe the process of studying exactly what happens to the trash we leave behind. In the book “Garbology,” by Edward Humes, the author spoke about cutting through a landfill and thus cutting back in time. He spoke of peeling back each layer, revealing newspaper articles from 1940 and small remnants of fabrics that he speculated had once adorned the individuals of those times.

For years archaeologists have studied the garbage and remains of ancient civilizations through excavation to obtain a sense of the culture of the civilizations that were. Archaeologists would also study household objects and even the diets of these earlier peoples, which is what led me to create the work Constringe.
The definition of ‘constringe’ is to cause to shrink, constrict and compress. This is exactly what a trash compacter or landfill does. I devised a method to take hundreds of glass hoses, tubes, and conduits that comprised the other works in my exhibition and constringe them into small, two-foot squares, weighing around 100 pounds each. After the creation of six of these cubes they were displayed at eye level so that the viewers could easily dissect the different layers of waste in front of them. Each cube contained hundreds of colors, from pristine white to rusted steel, and many varied forms that intertwined. The pieces reacted to one another by bending and folding around and within each other. This became a statement not only of the history of each object, but of the beauty of what all of these objects have become as a whole.

With my work entitled Relic, I wanted a surface that looked like the aged marble that makes up a majority of famous Roman sculptures. I started this piece with the
reference of how electrical conduit and wires spill from the interior cavity of a deteriorated building. I thought of these walls as human flesh and the wiring comparable to our veins. Keeping with the analogy, I used average human height of five foot long to choose the length of the piece.

I attempted to reference Michelangelo’s “Pieta” by getting the linear quality of the conduit to mimic the fluidity of Jesus’s body draped in the arms of his mother Mary. The conduit in Relic was draped over two small white hooks that were attached to the end of steel rods hanging from the wall. These stands acted as arms so that the conduit appeared to be soft and fluid yet had the appearance of marble.

In the piece entitled Flow Control I created a twenty-foot long glass pipeline that represents the average size pipe that is used to bring water in and out of a building. Using various methods, while the glass was both molten and cold, the surface was aged, bulged and broken in order to reveal the life and history of this object. The work was displayed at a height in
which viewers could look through the entire length of the tube. The title of this piece came about not only because of a pipeline’s normal use of controlling the flow of water, but also because of the scale of this piece and how I was able to control the flow of traffic in the gallery with this object.

I chose the Canal Street Gallery solely based on its appearance. The rough, industrial feel was a perfect venue for this body of work, allowing my vision to meld with the natural surroundings of the building.
The Process

The aesthetics of a torn down structure, the number and lengths of wire and hose hanging lifeless from the rafters of a decaying building, was what guided me toward creating the sculptures that I did in my thesis exhibition. As my investigation both began and continued, I came to realize how closely this newfound research was related to my past interests. Curiosity of how things work, form versus function, what is hidden inside being brought to the outside, decay and demise, along with unfamiliar colors and textures were all qualities that first interested me to research the human body.

I began to make this body of work by collecting a few simple objects that could be used to take molds from which could later be turned into glass. I used a ten inch industrial steel sewer line, a length of flexible one inch diameter electrical conduit, and a standard six inch air ventilation hose, to name a few. Throughout the creation process, several hundred molds were made to either blow hot glass into or cast within a kiln. Kiln casting involves the use of a technique called lost wax casting to ultimately retrieve a hollow mold of a particular object. The hollowed out plaster/silica is then placed into a kiln and the void is filled with glass, resulting in an exact, solid, rigid reproduction of the original object. A ‘blow mold’ is carried out in the hot shop and consists of a two-part plaster mold of an object that can be opened up and a molten glass bubble can then be put into the mold and blown into the form. This process allows for a much more fluid, hollow reproduction of the original object that can then be further manipulated while still hot.

These objects become anthropomorphized, taking on a sense of life and motion in the hot shop. I was able to freeze a fluid moment in time and begin to preserve these objects as I let the glass set up. The fact that this industrial junk has been transformed into
glass allows it to become more precious and fragile. I created the look of corrosion and deterioration on the surface of the glass with patina, which gives a caustic appearance and allows the viewer to empathize with the now anthropomorphic objects.

For the work *Urban Artifacts* I created a plaster mold off of the six inch sewer line. That mold was used to blow molten glass into to create the sewer line in glass. This allowed me to recreate these hoses in glass exactly as they are made normally in plastic. After blowing the glass into the mold, the surface of the glass was altered using several different techniques. After many attempts, a select number of these objects were used and displayed on my *Urban Artifacts* wall. The rejects would later be compacted into the piece *Constringe*.

For *Constringe*, I decided to give each object a surface that told a story about its own replicated history. I wanted to create a surface that held enough aesthetic information that it allowed the mind to wander through thoughts of the objects creation, its use and purpose, how its surface became tattered and worn, and finally how it met its demise. Each object must have the ability to evoke empathy from the viewer.

The majority of my technical research focused on a way to remove the normal sheen of glass, yet retain translucency and fragility. This led me to use various chemicals and metal oxides and later to a glass-aging process called scavo, which combined a lot of the elements I was testing into one solution and is the Italian word for “antique.” The scavo that I used to age the glass is a chemical concoction of calcium carbonate, potassium nitrate and wood ash. It is often used on glass to mimic the surface of glass that has been buried for hundreds of years. From the basic formula I derived several different recipes that not only aged the surface of the glass, but also colored it at the same
moment. Scavo is an acid, and when being applied hot can make the surface pitted and eaten away. The surface then has the appearance of age, time, overuse, and looks as though it may have been buried for thousands of years in a highly corrosive environment. The longer the scavo is reheated the more corroded the glass would become, which I utilized to achieve an aesthetic of varying ages on each piece.

For the piece *Rejects* I used the same style of mold that was used for the *Urban Artifacts* wall. I would again blow the molten glass into the mold and treat each hose through various color applications to make each uniquely scarred and tattered. Using a nickel-chrome wire, I constricted areas of the glass and heated one area at a time. Some of the surface I made ‘over blown,’ sometimes to the extent where it would actually obtain a hole or crack from expanding too much. These forms looked familiar to the original sewer hoses yet they also had the appearance of an enlarged human stomach. The fluid nature of glass naturally helped me to achieve this form, and the chemical reaction of colors on the surface because of the scavo held the key to remind the viewer of the visceral qualities of these objects.

For the work *Flow Control* I used an actual steel sewer line and I applied a release agent the interior so that I could blow molten glass right into the tube and still be able to remove it. The surface of these tubes and connectors were treated with vulcanizing iron which is normally used to cast iron at very low temperatures. By using this iron while hot, it became a part of the glass surface and I was able to rust and patina the glass as if it were actually iron once the glass had cooled.

*Relic* was created using a kiln cast glass technique known as lost wax casting. I created a plaster silica mold around a wax model of a conduit. The wax was then melted
away to create a mold that had a void of a conduit that was then filled with glass. To cast these pieces I used clear glass that had been crushed in a ball mill to be the consistency of flour. This glass was then mixed with a small amount of steel powder and about twenty percent sawdust. As a result of these two steps, the glass would have the appearance of a white, foamy substance with small black specks within it once cast. The sawdust would cause thousands of tiny air bubbles that would pit and mar the surface and help to give the appearance of aged marble.

The final piece in my show, Constringe, was created using all of my waste pieces and scraps that I had acquired. These pieces were stacked in a two-foot by three-foot steel box that was placed in a kiln. The glass rejects were piled up high, to the point that they protruded from the top of the steel box, and then brought up to temperature and slumped until they compressed downward into a dense brick-like form. At the slumping temperature of 1310 degrees Fahrenheit I reached into the kiln to aid in the compression of the glass by pushing it down with various pieces of wood. This is an unconventional glass-working process that I devised, much like scientists of the past, to create a solution to my existing problem.
Conclusion

Being a few years removed from this body of work now and being able to reflect back upon it, I have realized what this work is about to a deeper degree. During graduate school I wanted to create a body of work with a daunting scale that was overwhelming, like the metal sculptures by Richard Serra and the realistic paintings by Gottfried Helnwein. Scale is extremely limited with glass because of the equipment that is used to manipulate it while hot, so I chose to push the boundaries of size by cold assembly and the use of multiples.

The work was to be reflective of my past interests in the workings of the human body and my newfound interests of industrial remains. Upon looking back I realize how my love for history and interests of the past were heavy handed in this work. What is so precious to me about historical relics are that many were made by hand. Today a machine cranks everything out and little is special and handmade anymore. I feel as though this idea inspired me to want to recreate this factory made garbage by hand in a precious material, in order to preserve and display it as a relic of the past.
Bibliography


“Urban Artifacts”

Blown glass and steel
Overall height: 8’
2008
“Relic”

Cast glass
Overall length: 5’
2008
“Flow Control”

Blown glass, steel
Overall length: 16’
2008
“Rejects”

Blown glass, steel
Overall height: 4’
2008
“Constringe”

Blown, cast, and slumped glass
Overall length: 6’
2008
“Constringe” (top view)

Blown, cast, and slumped glass
Overall length: 6’
2008