

Eating The World and Saving Some for Later

John Erwin Dillard , 2nd Year MFA Research Fellow at Tyler School of Art and Architecture Glass Program at Temple University.

In Three Acts:

1. The Mythos of Recycling and Economic Power Under Capitalism
 2. The Object of Servitude and Feminist Ideology
 3. Creative Practice and the Site of Perpetual Hope



Installation for "Kenophobic Pantomimes" at Below Grand NYC
Cataclysmic Event
Glass, steel
2023
5.5'x3'x38"

The early ideals or aspirations for this grant were amorphous, idealistic, and mostly intangible. This deliverable for the Temple University GRASP award of 2023 will detail the research conducted while searching towards the abstract's proposed outcomes. The primary research for this award was conducted through active artistic practice. One of the foremost objectives of this text is to unpack and give clarity to the complexity of artistic research. As many artists understand, our discipline can seem obtuse to fit within the rigid modes of academic production. Unlike the STEM fields or even humanities the discoveries within our research often yields little, if any, tangible outcomes. Here, in this text, I will outline the complexity of my own research in conjunction with the grant and attempt to demystify how artistic practice can become a praxis which may contribute meaningfully to the broader topics of sustainability.

Sustainable Glass Practices and Expanded Pedagogical Methods in Creative Practice:

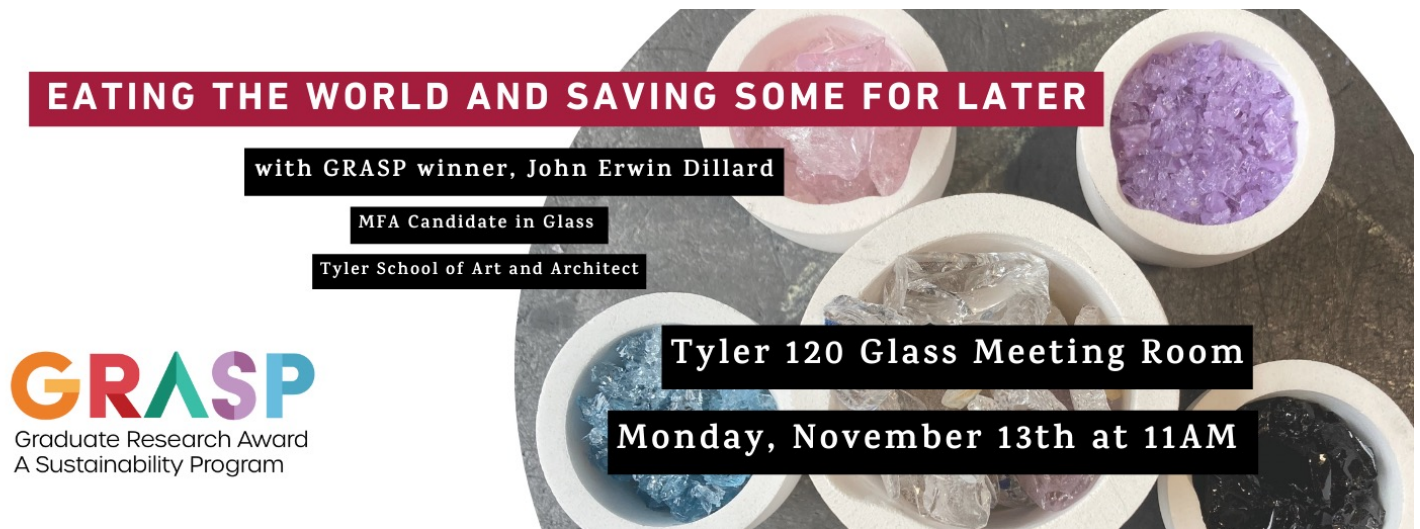
Abstract:

This project will:

- Reduce waste
- Conserve energy
- Save money for both the institution and student
- Provide curricular development

As an artist working in glass the ecological footprint of the material is a continually intensifying concern in my studio practice. Part of my current graduate thesis work is developing a series of glass recipes that utilize un-recyclable glass waste from the Tyler studio. The progress of this research is severely limited by a lack of equipment that prevents new recycling practices from being developed. With the support of the GRASP grant and the Tyler Glass Program I will purchase equipment and materials to develop formulas and written records on how to repurpose contaminated waste glass for use in studio art practices.

With a written deliverable I will formulate glass recipes for recycling studio waste glass and provide other students and artists new methods to reduce waste and energy consumption. Finally, I will present sculptural work from this project in my graduate thesis exhibition at Temple Contemporary. This initiative is not only presenting new modes of creative practice but produces new forms of curriculum development, saves money, expands professional practice for students and boasts exciting new innovations for recruitment.



The remainder of this deliverable will follow the trajectory of the lecture “Eating the World and Saving some for Later” which this text is also titled. Eating the world refers to a metaphor that relocates the maker as a consumer of the world. As artists, primarily those engaged with sculpture, find themselves bearing the consequence of consuming often egregious amounts of unrenewable resources. The impetus of completing this grant and the following research was to reckon with these inevitable consequences. Here I reimagine artistic practice as a pathway to produce scholarly contributions which can produce new discourse and methodologies to approach climate crisis through artistic practice.

“Saving some for Later” expresses the sentiment to explore possibilities and continue making contributions to the discipline of sculpture while minimizing the damage of those consequences. I approach this in three phases.

One: The Mythos of Recycling and Economic Power Under Capitalism

This opening section unpacks the language around the terms reduce, reuse, and recycle. How these terms were fabricated into an alliterative slogan to disguise the intentions of large corporations to shift the onus on consumers around managing waste. Uncovering the economic interests of capitalistic greed that accelerated an age of climate crisis.

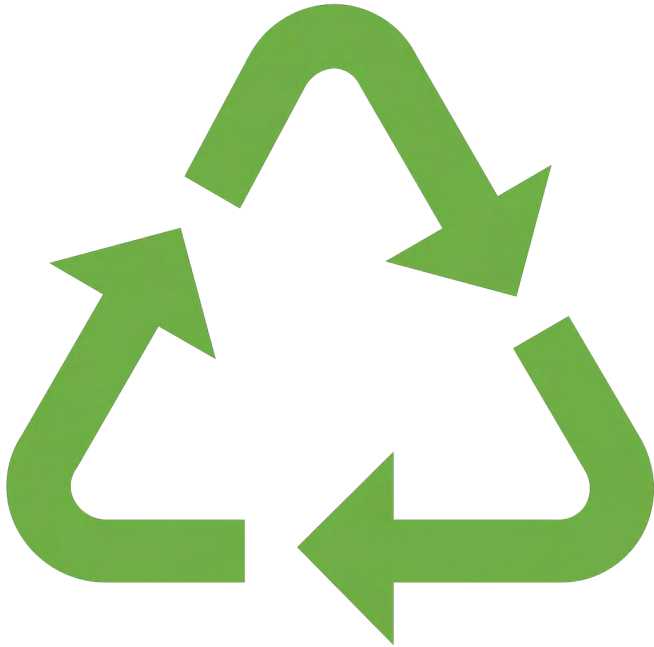
Two: The Object of Servitude and Feminist Ideology

The nefarious intention of capitalistic propaganda is cross examined against the ideals of existentialist feminism. Primarily citing the work of Simone De Beauvoir and her text *The Ethics of Ambiguity*. De Beauvoir’s take on the ideas of Hegelian collective consciousness, and her reconstruction of understanding the Nihilist Epoch reframes the conversation on consumption in the United States’ age of massive economic expansion.

Three: Creative Practice and the Site of Perpetual Hope

Section three surmises the broad complexity and breadth of the previous subject matter. Finalizing the text with the outcomes of this research. Demonstrating where the product of artistic practice can create positive affective change around complex global issues.

REDUCE
REUSE
RECYCLE



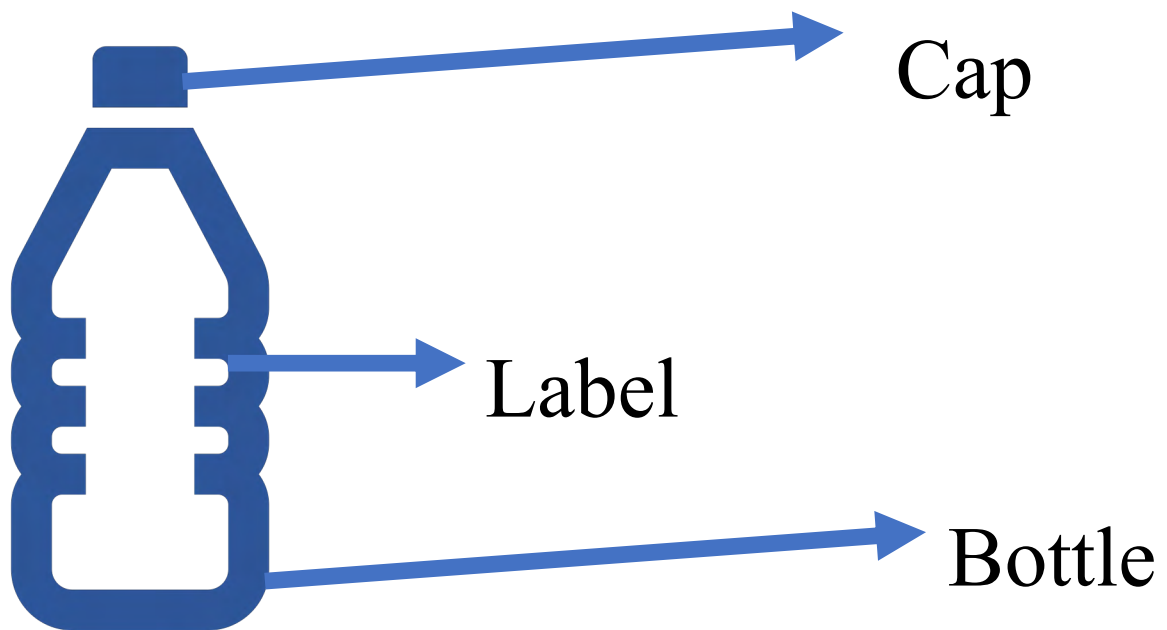
Is it all a lie?

Reduce, reuse, recycle was a slogan fabricated by lobbyists and marketing strategists of large corporations who held stake in producing petroleum-based products. Beginning in the 1970s the intention of this corporate propaganda was to shift the burden of climate conscientiousness onto unwitting consumers. Here I would like to address every single term in the slogan.

The first term is reduce. Reduce insinuates that we should reduce the amount consumers purchase and use products. Reuse suggests that we use the products we purchase or already own as many times as possible. By reusing we are therefore also reducing waste by purchasing less of the same product. Recycle, I believe the most important to understand, is the term which suggests the material we purchase and can not reuse may be collected and transformed into another product.

It is imperative within the context of this text I clarify the difference between reuse and recycling. Often consumers are under the impression that reuse and recyclable are interchangeable. When a product is reused, it does not have to be reused in its original form. As an example, the New Orleans, LA. USA. based company Glass Half Full NOLA. Glass Half Full collects glass waste and crushes the glass into a fine sand. This sand is then placed in the bayou wetlands of Louisiana to combat coastal erosion. Here the glass is not being recycled, it is being reused. For a material to be recycled it must be processed back into its most mutable state then reconstituted into an entirely new object.

Such as at Tulane University Glass Program also based in New Orleans collects glass bottles as raw material for their art glass studio. The bottles are cleaned, crushed, and remelted to temperatures over 2000 degrees to create art objects. Since the glass waste is being melted into its mutable state and transformed this constitutes recycling.



Objects are often marked as recyclable when according to the U.S. Federal Trade Commission they can be recycled up to 60% of the time.

The strategies of large corporations to distort the public's understanding around the efficacy of recycling was mainly to protect vested economic interests in producing petroleum-based plastics. There are seven types of consumable plastics that can be encountered that range in chemical composition. The type of plastic determines whether that particular object can be recycled. The U.S. Federal Trade Commission or FTC allows an object to be labeled as recyclable if it may be recycled up to 60% of the time. This vague numerical value also refers to the consumer's competency to appropriately dispose of the object to be recycled at the 60% threshold. Further complicating the process is that many objects, such as a plastic water bottle, are often constructed using three different types of plastic. As the diagram above describes there are often three unique types of plastic used in a singular object that must be separated for the bottle to be recycled. Compounding the issue is that items such as food containers, utensils, etc. are often contaminated. When a recyclable object encounters oil, food waste, or other such non-plastic material it can not be recycled. For example, cardboard pizza boxes are not recyclable because of being saturated with oil. When these contaminated objects are placed into the recycling stream it is difficult for them to be removed, and often result in entire masses of recyclable objects to be disposed into landfills. The complexities and opacity of the U.S.-based recycling system is interwoven into a capitalistic narrative that has promoted deception over solution.

National Sword and the lack of U.S. infrastructure for recycling



(Center for EcoTechnology)

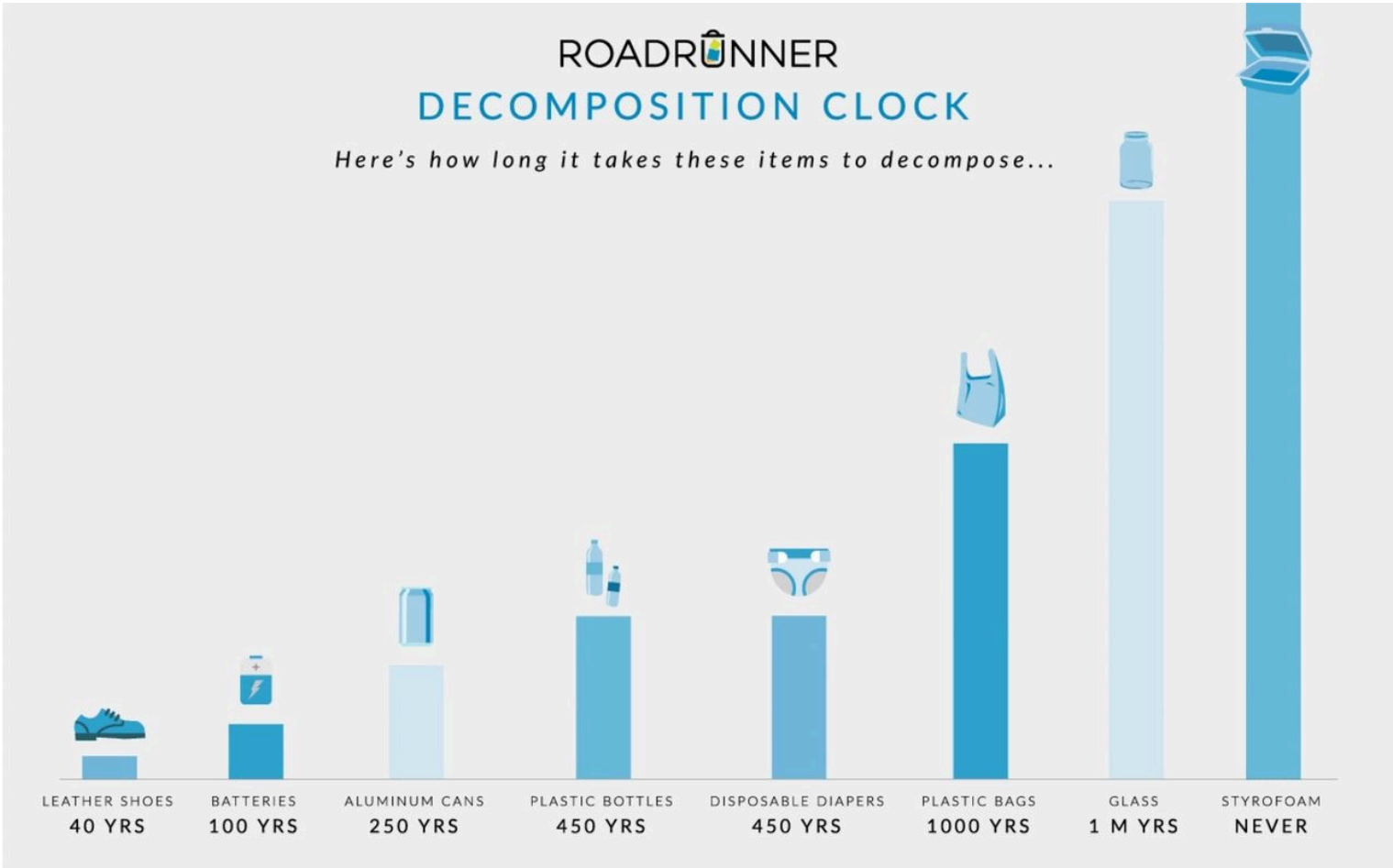
Companies such as Exxon, Chevron, and Dupont who had financial stake in the production of petroleum based plastic products have been able convince consumers that plastic could or was being recycled. While most plastic and other recyclable materials were being sent to developing nations in and around the continent of Asia. In 2019 the Chinese passed an act known as "National Sword" in 2019 to halt the import of waste from Europe and North America.

From my own experience, and that of other U.S. citizens I've shared this research with is always a question of "How did we get here? Why was there never a system built to deal with these issues?" Which is where the knowledge of the Chinese National Sword Act provides an answer. Large petroleum corporations understood, at the time when this began to transpire, that recycling was not a cost effective solution. Building the municipal infrastructure to recycle waste was also not a problem for the private capital sector. Little federal regulation was put into place to set guidelines across the U.S. on how to deal with the handling of recyclable waste. Before 2019 the most effective and fiscally viable way to handle recycling in the United States was to send the waste to developing nations in the East and it would become out of sight, out of mind.

However, the issue suddenly thrust forward to the forefront of U.S. sightline when China declared it would no longer accept the waste of Western Nations. This act revealed the deep structural fissures within private and public U.S. sectors handling of recyclable objects. This was a national moment of "caught with your pants down." As an example the city of Philadelphia, PA. where this research has taken place is, as of 2020, according to Samantha Wittchen in her writing for the Grid Philadelphia states that only around 8% of Philadelphia's waste is being recycled municipally.

In 2019, statistics from the Energy Justice Network estimates that the city of Philadelphia alone produces 1.4 million tons of residential and commercial waste. 1.4 million tons is 2,800,000,000 pounds. The U.S. Department of Environmental Protection estimated that 8.8% of all the waste in Pennsylvania is film plastics as of 2023. (Waste & Recycling) Compared to the data from 2019 it can be approximated that 8.8% of Philadelphia's 1.4 million tons of waste is 246,400,000 pounds of plastic. Comparing these figures to Samantha Wittchen's calculation of 8% being recycled municipally would suggest that only around 19,712,000 is being recycled within the city of Philadelphia. The Energy Justice Network identifies that 55% of all Philadelphia's waste is placed in a landfill and the remaining 45% is incinerated as of 2019.

The visual aid below from Roadrunner Recycling describes how long the waste that is placed in landfills will take to decompose. While the film plastic previously discussed can be identified in the "plastic bag" category at 1,000 years for decomposition I began my research invested in the glass category.



(The Decomposition Clock)



(The Decomposition Clock)

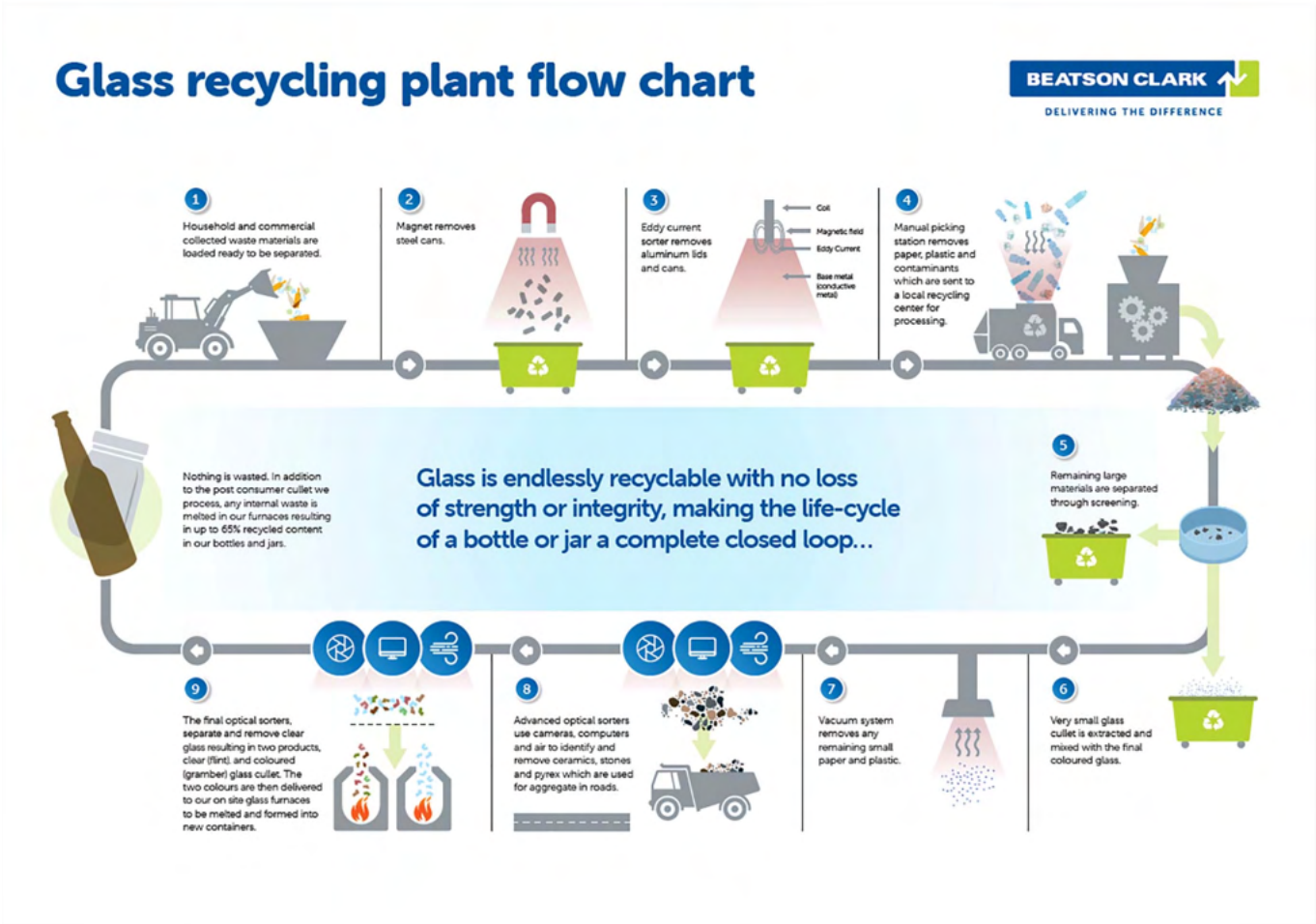
With Roadrunner Recycling estimating a total of 28 billion glass objects entering U.S. landfills every year the scale of that waste seems almost unimaginable without the help of visual aids like shown above. With 28 billion objects entering the landfill yearly and a decomposition time of around 1 million years the collective time for every object to decompose is a length of time so long it can only be represented abstractly as 2.8×10^{16} .

These figures concerned me as a consumer, a human being, an educator and primarily as an artist. The primary material for my artistic practice has been glass for the better half of a decade. The more layers I peeled back around the economic and municipal scaffold of glass waste drove a wedge deeper into the direction of my own moral compass. I began to contemplate how the work I produced in my life time would see the dawn of millennia which I could never comprehend. The specter of impending climate collapse lingered in the rear of my skull rattling chains of shame. I would enter my studio, and it became a battle ground to justify the now obvious and bleak consequences of creating my life's work.

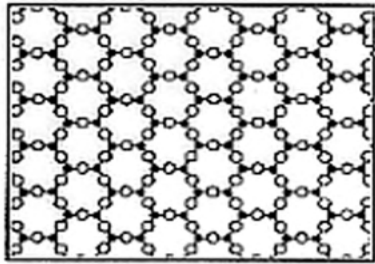
In my own moral crisis, and in discussion with colleagues who share similar concerns I discovered the topic of these conversation often produces two distinct results. There was a divisive split between the demand for absolute justice in this very moment or the acknowledgment of willful ignorance. I was in the latter group, fully aware of what I was doing would accelerate the collapse of our ecosystem if even very minimally. I was termed an “accelerationist” by a colleague and accepted the term in a twisted arrogance.

However, I believe the situation I am describing can not be remedied by an approach of either or. I believe it has to be a both and situation. ”Both and” describing a process of acknowledging there is no immediate solution, that we may even be beyond the point of no return. Even if that were to be the case, just because we are looking over the precipice of collapse does not mean we need to jump.

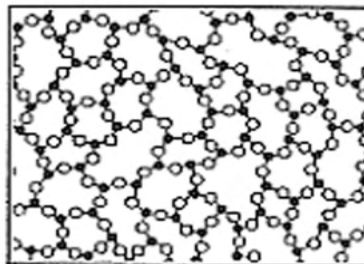
In search of resolution, I turn to my studio practice as a form of inward reflection. I started to look for the other side of the coin. Glass revealed to me where to begin searching towards a solution. Although glass never truly decomposes (it only breaks down into smaller and smaller pieces over a million years) it is the worlds only infinitely recyclable material. Unlike plastic, glass requires no addition of virgin material to remain molecularly stable. The material can be broken down and returned to the mutable state an infinite number of times and not suffer from molecular degeneration.



What is glass?



quartz



glass

1. Former- Silica Sand
2. Flux- Pot Ash
3. Stabilizer-Limestone

To better understand the complex interwoven narrative, I have just described I find it imperative to discuss what glass is. Glass is an amorphous non-crystalline super cooled liquid. It has been used by human beings as early as the 16th century, notably discovered in the former Byzantine Empire. It has three components a former, a flux, and a stabilizer. Listed above are the three most common contemporary combination of raw materials to produce what we would understand as glass. A former is essentially the body of the material, what the largest percentage of the material is. A flux is an additive that allows the former to be workable and fluid at the extremely high temperatures needed to manipulate the material. A stabilizer is the last component which allows the material to remain structural when cooling from the previous high temperature. Typically, around 2,100 degrees these three components are combined and synthesized into a new material with an irregular molecular structure. As described above in comparison to quartz glass is incapable of forming a crystalline structure upon cooling. The unique molecular structure of the new material is what allows it to be recycled on a permanent continuum.

This understanding of the material presents a small opening through which I was able to pass into a new state of optimism. That perhaps recycling could be done, and through this research I started to imagine how creative practice could make it possible.



Spruce Pine, NC. USA

(Mims 1)

The first act of this text has primarily focused on how waste is treated, what it is, the structures that govern it and the state of how it currently exists within our world. Transitioning into act two I would ask the reader to share in a personal reflection of where the material of glass originates rather than where the byproduct of its consumption remains.

In 2016 I was awarded a scholarship to attend the Penland School of Craft situated in the Blue Ridge Mountains of Western North Carolina. Several years later I would return for five months as a studio assistant in the school's glass studio during the summer of 2021. In the winter of 2022 I would return again as an artist in residence. In total I lived for about eight months in the seclusion of this mountain range. The surrounding town of Spruce Pine was and still somewhat is supported by the economic demands of mineral extraction. Spruce Pine during the 20th century was the richest mineral and gem deposit in the Northern Hemisphere. Since the minerals, primarily emeralds, have been almost totally extracted. However the mining of quartz, feldspar, and other minerals are still actively harvested.

Spruce Pine is home to the Spruce Pine Batch company which along with artist in the surrounding area pioneered the use of glass within the studio arts. The glass former mined here is unique because of an incredibly high concentration of quartz within the silica sand. The composition of the silica sand and the Spruce Pine Batch companies formulation of it produces a fine quality of glass that is considered very desirable by studio artists.



"How I May Protect Me From Myself"
Blown, Fused, Cast Glass
8"x8"x18"
2021

My time spent in and around the town of Spruce Pine was foundational not only to beginning this research but my practice as an artist as well. I very clearly recall my first time turning the corner on a long stretch of highway and seeing the open mine at the top of the mountain. I can only compare it to seeing an animal splayed open after slaughter. I saw the entrails of the earth, it was open in a massive white wound. I returned to that memory again and again over the years. Working in my studio I thought about how through that wound I was able to manipulate a substrate of that earthen body. My own body and the body of the earth became intertwined in the work. Something inert had become animated through the will of humanity. By process of science, industrialization, and the labors of resource extraction I was bearing witness to the dawn of an era I still believe I can not comprehend.

During my time as a studio assistant at Penland I developed these thoughts through my work. The sculpture depicted here describes the reconciliation between the desire to cannibalize the earth and see it remade in the form of my own will.

As I developed several sculptures during this time it became imperative to disentangle the intellectual skein wrapped around how I would justify engaging glass as a sculptural material knowing fully the brutality of its origin and its ultimate end. At the time I don't think I truly cared, I felt so consumed in the desire to manifest my own protected reality the consequences seemed irrelevant. Titled *How I May Protect Me From Myself* describes how I began to navigate the vibrating line between the reality I wanted to create and reality itself. To do so I began to look towards the writing of Simon de Beauvoir to better understand the consequences such a delusion could bring. In de Beauvoir's writing I began to see I had become a servant to the object. In my case, a literal object, but the servitude of the object describes a total obedience to an idea that is baseless or precipitates harm. To enter into the servitude of the object you must acknowledge the wrongness of your actions. I had exchanged my freedom to serve the objects of my desire. I knew full and well they only severed to reinforced the elitist bourgeoisie ideological systems I had damned in the first act of this text. I was making with reckless abandon, perhaps not for money, but to fulfil a desire to consume. To consume in sculpture does not necessarily mean to render the material unusable but transmute it from an original body into a body of ones own will. Here the will becomes weaponized against the protection of human freedoms. As de Beauvoir describes in¹³ her text "The Ethics of Ambiguity."

The second act of this text requires the understanding of three key components of de Beauvoir's writing from "The Ethics of Ambiguity." I will summarize them as I have to come to understand them and one of which I quote directly from the text.



(Gobeil)

Simone Lucie Ernestine Marie Bertrand de Beauvoir

1908-1986

- The Will For Suicide
 - The philosophy of Nihilism denies individuals of their own lived experiences. de Beauvoir suggests that nihilism aided in the Nazi regime to reinforce ideas of anti-freedom in which it bolstered ideological values of the Bourgeois to repress others, deny freedom, and condone violence.
- Collective Consciousness
 - In essence the existentialist feminist ideology of de Beauvoir offers an expanded take on Hegel's work around consciousness to suggest that all intelligent life is wound in a continuum of collective knowledge.
- Servitude to the Object

“The Ethics of Ambiguity”

“Thus, confusing a quite external availability with real freedom, he falls, with a pretext of independence, into the servitude of the object. He will range himself on the side of the regimes which guarantee him his privileges, and he will prefer those which confirm him in his contempt regarding the common herd. He will make himself its accomplice, its servant, or even its valet, alienating a freedom which, in reality, can not confirm itself as such if it does not wear its own face.” P.66-7

Is God really dead?

We are currently experiencing a Nihilistic Epoch in an age of climate crisis. Nihilism is a series of complex philosophical beliefs that abandons morality and considers human existence as baseless. From a Nietzschean perspective there are two main points: the destruction of higher values and the denials of affirmation to living. The current situation in which climate denial is taking place within the governing bodies of the United States our affirmation to life is in question. However, I believe it is possible to shift our collective understanding of our higher value and reform our understanding of God.

Scholar Camille Paglia continues to negotiate the ideas of Nihilism in her work *Sexual Personae*. Within in this text is a pathway in which we may reassess the Western ideological understanding of God and exit the nihilistic epoch. Paglia reimagines the structure of our world, and how it is ordered. That the true order of the world is that of nature. Thus, that nature is the true order of our world, a God, and art is the manifestation of desire to control natures ultimate order.

“There are no accidents, only nature throwing her weight around. Even the bomb merely releases energy that nature has put there. Nuclear war would just be a spark in the grandeur of space. Nor can radiation ‘alter’ nature: she will absorb it all. After the bomb, nature will pick up the cards we have spilled, shuffle them, and begin her game again...

Art is form struggling to wake from the nightmare of nature.”(Paglia 38-9)

Paglia herself quotes Nietzsche herself ”Almost everything we call ‘higher culture’ is based on the spiritualization of cruelty.” (Paglia 29) Here within this understanding of Nietzsche I invoked the thoughts of de Beauvoir to shift the paradigm around object making. Through the collective consciousness we do not have to work towards a world that subjugates nature. In fact, in accordance with Paglia, nature is indomitable. I came to know the will for suicide as the desire to enforce will, subjugate nature, that the hunger for domination had moved into baselessness. Moving forward I started to search how I would be able to exist without the thirst for dominance, the hunger to see the blood of earth.



“Cataclysmic Event”
5.5'x3'x38”
Glass, steel
2023

The sculpture depicted above was the first step in the search to realize a world where sculpture could harmonize with the God of nature. I discovered this passage from Paglia shortly after that drew the line between my moral searching and artistic vernacular.

“Everything is melting in nature. We think we see objects, but our eyes are slow and partial. Nature is blooming and withering in long puffy respirations, rising and falling. A mind that opened itself fully to nature without sentimental preconception would be glutted by nature’s course materialism, its relentless superfluity.” ...“See nature spuming and frothing, its mad spermatic bubbles endlessly spilling out and smashing in that inhuman round of waste, rot, and carnage.” (Paglia 28)]

The waste and rot I have written of in previous sections was rising to the surface. When I began constructing this sculpture, I recall in a studio visit making the remark that I had so much going on in my mind “the sculpture became a kind of craniectomy to take the pressure off.” This was my spiritual blood letting, where the earth and I reached a linkage. In that moment I fully came to understand how God, nature, and sculpture were intertwined in my work. As I continued to work through this research I looked the work of others, how these same issues had been already represented.



Return of the Hunters
(Hunters in the Snow; December)
Pieter Bruegel
1.18x1.61m.
Oil on panel
1565



Triptych of the Garden of Earthly Delights
(detail of central panel)
Hieronymus Bosch
2.2 x 1.95 m
Oil on panel
c.1504

The artistic concern for environment is not new but a pervasive thematic element of Western art history. I will reference the two works featured here to better contextualize how artistic practice represents the nihilistic epoch. Starting with work of Bruegel, the work depicting a scene in central Europe, in which the people experienced a great freeze. It was speculated during the time that a drop in temperature over such a long duration was accelerating the growth of a glacier. They believed the glacier would grow so large that it would swallow the city of Antwerp in Belgium. This work represents a pivotal historical moment that demonstrates artist relationship to nature. This recapitulates the themes of Paglia's suggestion that nature, is the ultimate force that I suggest replaces God.

Sixty years prior the work of Bosch imagines a world where the collapse of the world is imminent. This originally ecclesial work reframes the earlier conversation on de Beauvoir's will for suicide. The panel of this triptych depicts a range of human figures reveling in the impending death of the world. Within the frame is an ecstatic detachment from morality that foil the ideological systems I have described earlier. *The Garden of Earthly Delight* serves now to reform how we think of the baselessness and abandonments of freedom in the age of our own nihilist epoch of climate collapse. This reminds how we could continue to strive forward under the moral obligations of the artist. May we remember that our contributions as artist are that of the inner life, history, and culture of humanity. That which author our exceptional mode of expression.

Sculptor Kimberly Thomas embodies and mines these complex themes through her complexly constructed vignettes. Thomas's work presents a biopic series of narratives to escape the almost apocalyptic scenes in a post-industrialized United States. As a bi-racial artist Thomas delves into and through this intertwined history to remerge with gut wrenching visions of eviscerated landscapes. *Heavy* a quintessential sculptural vignette of Thomas is the ideal work to recapitulate these visions. The sculpture provides a viewing window into a world that has been forsaken by its creator. The seemingly innocuous scenes often depicted by Thomas are really sites of extreme cruelty. Often defined in terms of "short stories" these tales are often metaphorical landscapes imbued with the savage remnants of modern economic systems.

Thomas acts a material witness to the ravages of capitalisms search for perpetual growth. In *Heavy* a proverbial bridge of red brick leads the viewer into an unoccupiable tub riddled with the detritus of the urbanized landscape. Thomas suggests to us through her work that there is no place left for us, for humanity, and only in imagination can we project ourselves out of this hellscape.

Thomas gives us no hero, scenes without salvation, and postulates only on the declining action. For Thomas there is no "Why?" but only a "When." When the time comes to escape this uninhabitable land how will we do it?

In *Underpants Parachute* Thomas continues to subvert those literary traditions. In our conquest over the natural world, quintessential to art, this is how Thomas suggests we navigate the consequences of our Apollonian behavior. In this scene there is no origin, rising action, or climax but the viewer is presented a scene of escape. Akin to author Octavia E. Butler, Thomas offers a series of speculative fictions on a ravaged world. Whereas Butler writes of multi-spirited beings or characters moving through time, Thomas's movements are interdimensional. In her imagination, the artist leaps from dimension to dimension. Her fantastical contraptions an apparatus we may use to move with her into these alternate planes of existence. Each sculpture depicting a prophetic vision in the wake of total collapse.





Underpants Parachute,
(Image courtesy of artist)

How Thomas navigated the landmines of hope, brutality, collapse, and the realities of post-industrialization guided me through executing the pragmatic solutions within in this research. Thomas positions the maker, primarily herself, as both the witness and hero within her short story work. It postulates that perhaps we are living in a perpetual climax, every moment passing is built into the collective intelligence and in those very passing moments it becomes the most complex. In this ever-expanding collective complexity, we must not only bear witness but take action to save ourselves. I have established the ideological framework for how others had recorded, rationalized and critiqued the baselessness of a nihilistic epoch. Now I can provide the steps I took to return freedom and hope to my practice.

The crux of this research took place in the Tyler School of Art and Architecture glass studio at Temple University in Philadelphia, PA. This project was an extension of the studio's "Glass recovery system." This project spearheaded by program head and artist Jessica Jane Julius. The program was conceptualized and started to generate solutions around the waste glass created within the glass program.

Typically, artist studios producing art objects purchase and consume clear glass within their furnaces. Color is added to glass for creative purpose. This commercial color, once introduced into the clear furnace glass is considered contaminated. It is contaminated in the sense that it can not be re-melted and recycled into a clear furnace. If contaminated glass is added to a clear furnace over time the colorants remain within the equipment and change the coloration of the clear glass. Therefore, it is considerable undesirable due to the lack of clarity and consistency in coloration.

Hence, when glass is contaminated, it ends up being disposed of as waste. A particular issue is that the glass utilized in art studios is chemically composed in such a way that it can not be introduced into mainstream recycling systems. As a continuation of the system implemented by Julius, I proposed to collect the contaminated waste glass and experiment with various metal oxides to homogenize the material into a uniform color.

Glass color is created through the melting process. By introducing various metal oxides, the hue and opacity of the glass can be altered. As featured in the diagram below, I began to research known glass colorants. With the support of the Tyler glass studio and the GRASP grant I purchased several of these oxides and a small kiln to melt controlled tests to develop coloration.

THE CHEMISTRY OF COLOURED GLASS

Glass is coloured in 3 main ways. It can have transition or rare earth metal ions added; it can be due to colloidal particles formed in the glass; or it can be due to particles which are coloured themselves. This graphic shows some of the typical chemical elements that are used to colour glass.

SODA-LIME GLASS
COMPOSITION
SiO₂ 70-74%
SILICON DIOXIDE
CaO 10-14%
CALCIUM OXIDE
Na₂O 13-16%
SODIUM OXIDE

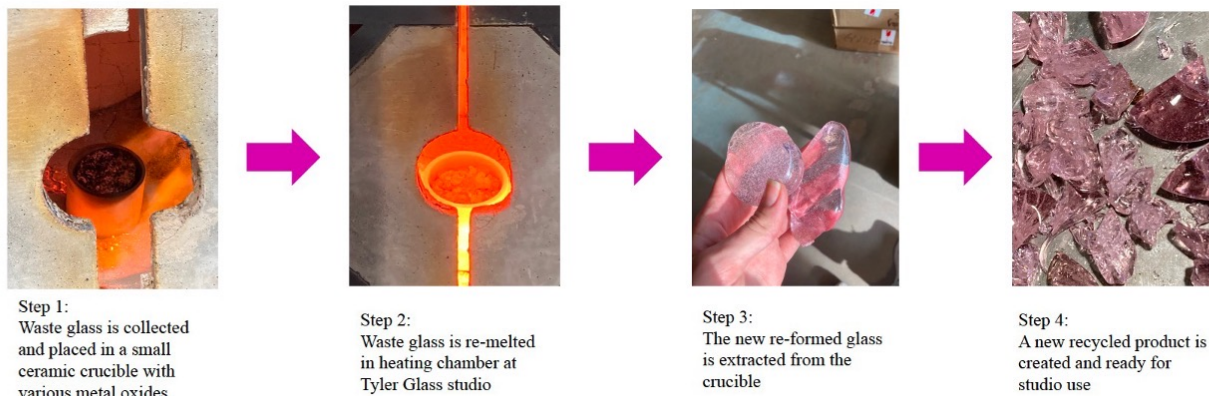
Soda-lime glass is the most common glass type, making up an estimated 90% of all manufactured glass. Its uses include containers, windows, bottles, and drinking glasses. The above percentages are a general composition only; other compounds are also present in smaller amounts.

IRON Fe ²⁺	IRON-SULFUR Fe-S	COPPER Cu ²⁺	CHROMIUM Cr ³⁺	NICKEL Ni ²⁺	GOLD Au	COPPER-TIN Cu-Sn
MANGANESE Mn ²⁺	COBALT Co ²⁺	URANIUM U ^{3+/4+}	NEODYMIUM Nd ³⁺	ERBIUM Er ³⁺	SELENIUM CADMIUM Se-Cd	CADMIUM as CdS

These are typical colours, and can be affected by the type of glass as well as the concentration of the colourant. Combination with other elements and compounds can also have an effect on the final colouration of the glass.

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(Bunning)



Once the material and equipment had been purchased then installed, I began testing. The series of images above this text describes the process of collecting the waste glass, introducing an oxide, melting the material, and the result for erbium pink.

As of August 2023, we have stopped 4,532lbs of glass from entering the waste stream. This material is being used to fill our 700lb furnace “Furnace C.” The glass is being colored with metal oxides to produce a studio quality glass for educational use. By recycling our own waste (currently 4532lb) we are recuperating over 1/3 of our original raw materials purchase. This equals an annual savings of \$7,500.00 Over the Spring semester of 2023 I developed a total eight colorant recipes developed using contaminated waste glass. These are listed on the following page and are an open resource for the Tyler and greater community.

This outcome of the deliverable reaches towards some of what was outlined in original proposal. However, I’ve found the research has profoundly impacted my practice as an artist. Working through this grant I have reshaped my studio practice to incorporate sustainability as a catalyst for sculpture. Reaching inward and in the search for freedom I discovered a way in which my studio practice can contribute affective change. This research draws a link between studio practice and greater issues of climate crisis, scholarly thought, and deliverable information.

Most importantly, the sculpture I produced in tandem with this grant has demonstrated that through rigors creative experimentation the broader world of intellectual thought can be synthesized through making. In this deliverable I’ve worked towards developing a series of sculpture that builds a greater scaffold around the often seemingly intangible values of artistic research.



Glass colorant recipes created during this grant:

Erbium Pink-

10lbs fine glass cullet
145g erbium oxide

Neo-lavender (Light-shifting)

10lbs fine glass cullet
145g neodymium oxide

Aqua-

10lbs fine glass cullet
15g black copper oxide

Cobalt-

10lbs fine glass cullet
1g cobalt

Vulcan II Crucible Kiln (Glass Blower's Furnace)

Opaque black-

10lbs fine glass cullet
2g cobalt
15g manganese dioxide
10g black nickel oxide

Fuchsia-

10lbs fine glass cullet
145g erbium oxide
145g neodymium oxide

Warm Yellow Red

10lbs fine glass cullet
25g selenium

Neo-Red

10lbs fine glass cullet
145 neodymium oxide
25g selenium



The remainder of this text will detail the coalescence of the research produced during this grant period and my own creative research. Running parallel the sculpture to follow in the next pages operates in a mode through which I bound pragmatic and creative solutions. Following a thematic trajectory through the body, consumption, contamination, and the slippage between body, site, and object. These sculptures were shown in New York City, at Prive NYC from December 1st of 2023 to January 14th, 2024.

When an Opening Becomes an Orifice

John Erwin Dillard

“When an Opening Becomes an Orifice” 2023

On view at Prive, 119 Essex St. New York, Ny

December 1st-January 14th



“Body From the Water”,
Polaroid Photograph, 2017

“In the restructured modernist dynamic, the role of the beholder is to be dominated and awestruck by the work of art, which undergoes a sex change and is recast as a simulacrum of the male artists autonomous impenetrable self.” -Dave Hickey, *The Invisible Dragon*

When an Opening Becomes an Orifice



“Blade”, 1998

I'd think to myself - “If I could. I would reach inside their chest, wrap my fingers around their heart and pump their blood for them.”

That began to describe a sense of desire based in the most corporeal attitude. To reach inside another person and force them to rely on you as a mechanism of survival. This thought is a linkage in the chain of desire, dominance, and pleasure. The linkage being in a belief that desire, primarily sexual desire, is based in a dominance model. This suggests that pleasure and desire are not mutually exclusive. The desire for dominance does not always relate to pleasure. So much so that it can be understood that fear, subordination, the unknown, and power can become sites of pleasure.



When desire, fear, pleasure are intertwined in this web of a dominator model the understanding of the body begins to shift and slip into a new perceptual mode. Here the body becomes an object. In this model the body becomes a means in which we receive pleasure. Pleasure in this connotation detaches from the understanding of feeling “good” so to speak. Pleasure becomes an expression of feeling that regards the human body as a mere receptacle. The body becomes an opening, a vessel, container, or conduit through which these sensations are understood. In the mythos of the American vampire, such as the film Blade 1998, when the human being becomes a subordinate to a superior being (the vampire) fear becomes pleasure. Fear, pleasure, the body, blood are now a source of nourishment. The body has become totally consumable, thus delegating it's new understood objecthood.



God is a Circle. Worship, for It Chews but Does Not Consume
Resin, fiberglass, silicone, wood, aluminum, glass, epoxy
2023
4.5'x38"x28"

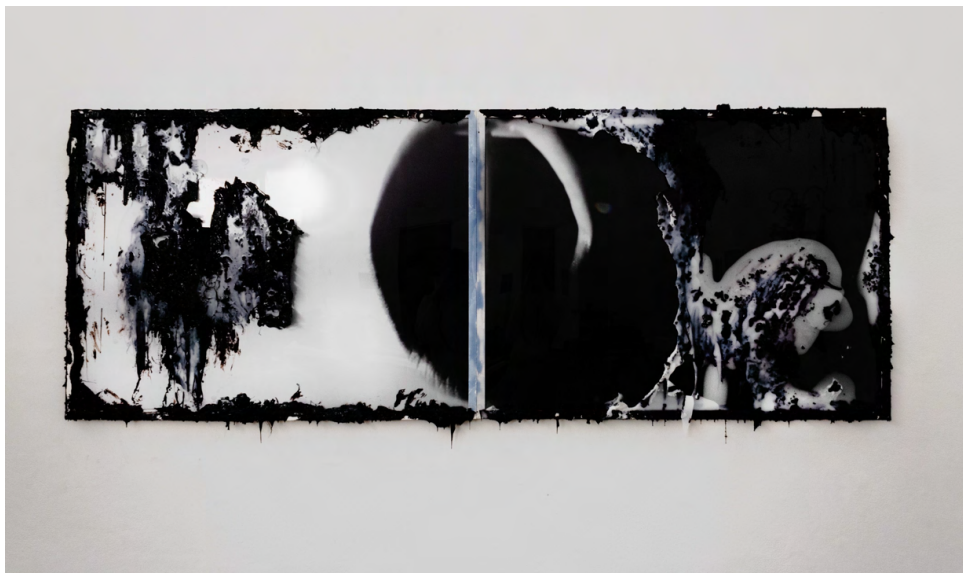


God is a Circle. Worship, for It Chews but Does Not Consume
Resin, fiberglass, silicone, wood, aluminum, glass, epoxy
2023
4.5'x38"x28"



God is a Circle. Worship, for It Chews but Does Not Consume
Resin, fiberglass, silicone, wood, aluminum, glass, epoxy
2023
4.5'x38"x28"

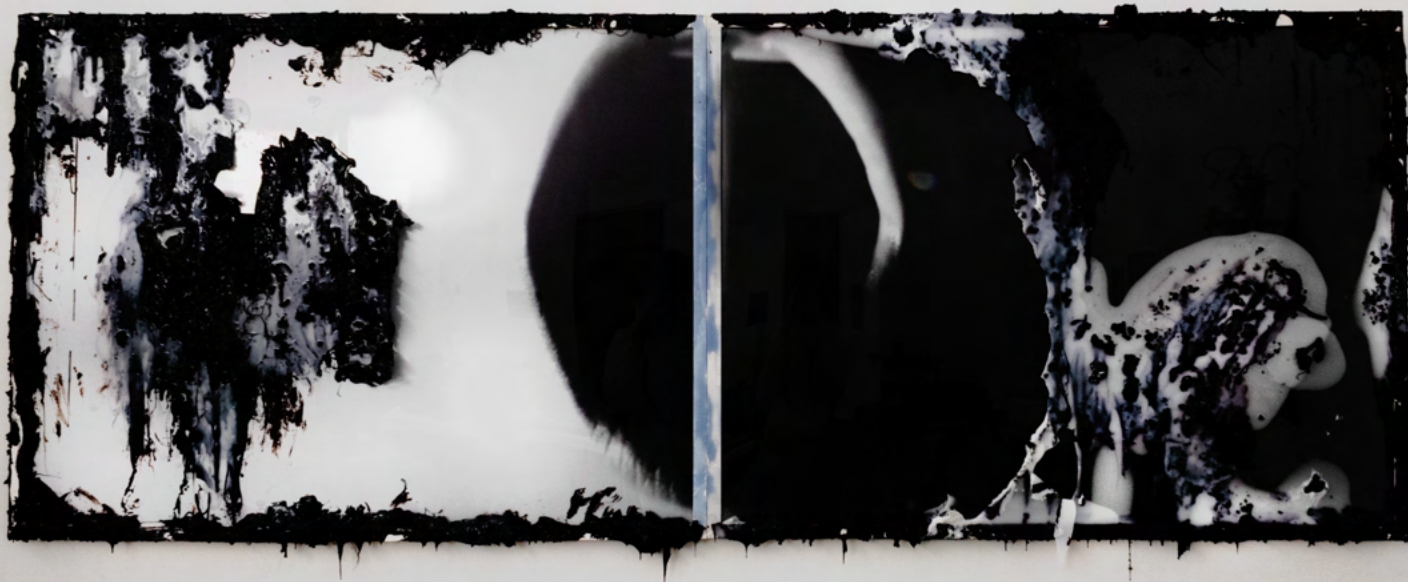
When an Opening Becomes an Orifice



This is the departure point where I began to understand the transformation from body as an autonomous closed system to a permeable and contaminated ground. The mouth most directly correlates to the understanding of what could be considered consumable. The mouth becomes a passageway, or a void for intake and expulsion. The site of human consumption becomes objectified as a metaphor for these new understandings.

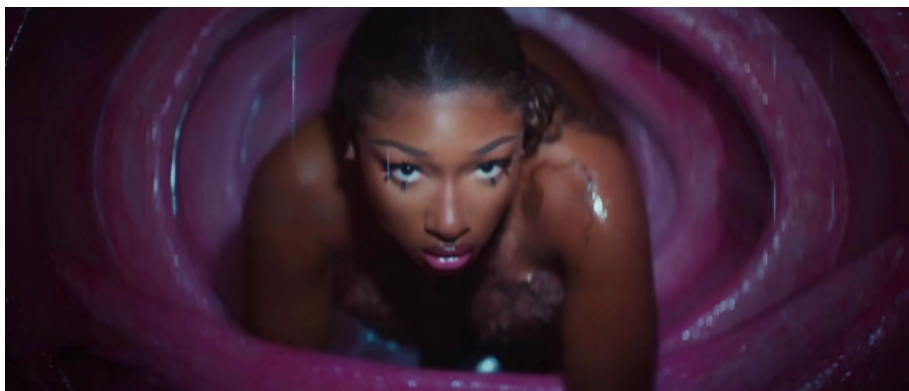
These thematic elements are not new, but persistent in Western ideology and aesthetic value systems. Here in the “Incredulity of Saint Thomas” by Caravaggio painted in 1601-1602 references a parallel system of artistic intention. Where the body of Christ is opened, and the doubt around his personhood is challenged. A wound, or an opening in the body, becomes an orifice. The body becomes a receptacle, something to contain a truth. Visceral in nature the wound becomes a sexualized site where penetration is necessary to reach an understanding or resolution. Within the dominator model mentioned previously the aspect of penetration is paramount in our understanding of the body's permeability. Here is where the body relinquishes it's autonomy and becomes contaminated.





When an Opening Becomes an Orifice
C-Print, wood, silicone, plexiglass, glass, hair
2023
80"x30"

When an Opening Becomes an Orifice



Artist Megan Thee Stallion in her recent musical composition and video “Cobra” continues the trajectory of these Western ideological systems that objectify the body and describes its contamination. She describes her pussy as “depressed” the most notable orifice in the human tradition is the female reproductive organ. What is usually considered a receptacle orifice for pleasure and procreation is recontextualized as having a feeling of its own. The feeling of depression and referring to her own organ as having a human emotion further blurs the boundary between personhood, object, and the permeability of the body. The biblical allegorical mode in which Stallion uses the snake particularly the attribute of skin shedding infers that inhabiting a body is not a stationary or fixed experience. That shedding, expulsion, take place at the same site as sexual reception and pleasure.

When an Opening Becomes an Orifice

Most poignantly is Stallion's reference to the work of Robert Smithson's "Spiral Jetty" 1971. The seminal earth work and Smithson's writing on Site and Non-Site is repositioned within the body as a new kind of site. Where the land artists of the 1970's sought to contaminate the artistic site of minimalism Stallion is contaminating the body within the context of Western aesthetic culture. This recapitulates my speculations that within the dominator model the body can become an object and eventually transition itself within the space of objecthood into a site. That what once was an opening can become an orifice. The work in this exhibition becomes a space to be metaphorically entered. Sculpture becomes a contaminated site. The sculptures become a perforation of space, reality, ideology, and reveals systems of belief that are not new but subversive in our understanding of the body and object within Western aesthetics.





Grand Illusion in Copper Cobalt
Glass, wood
2023
5.5'x23"x21"



Grand Illusion in Copper Cobalt
Glass, wood
2023
5.5'x23"x21"



Grand Illusion in Copper Cobalt

Glass, wood

2023

5.5'x23"x21"



Grand Illusion in Copper Cobalt
Glass, wood
2023
5.5'x23"x21"



Grand Illusion in Copper Cobalt
Glass, wood
2023
5.5'x23"x21"

When an Opening Becomes an Orifice



Sculpture, as a discipline is ultimately informed by the body. The body's relationship to sculpture in space reveals the kinship between the ideological value of its maker and the viewer. Here I think about the fear, the perforation, and my own body as a consumable object. In the making of my work, I know that in exchange for literal body and spirit an inanimate material is imbued with my spirit. My body and spirit become visual and intellectual consumable for the viewers. In this way I may enter another, I become a subversive entity within the mind of another. I become consumed, like a blood and remains flowing through the circuitry of the mind akin to that of the human circulatory system. In this way my desire, fear, love, spirit become a part of the dominator model. I produce objects of my body for consumption.

Thank you and always warmthness, John

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