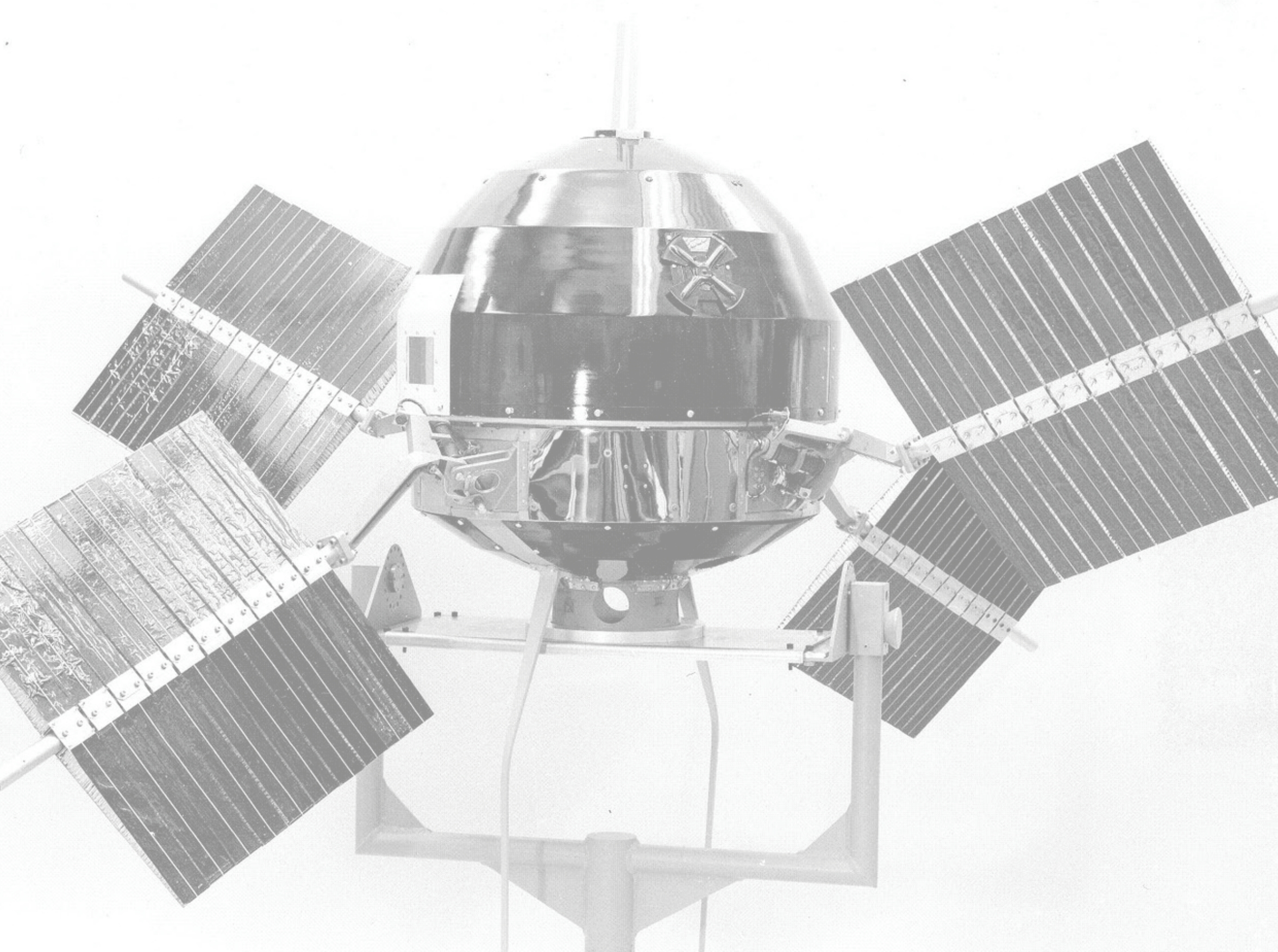


MODERN
TIMES

Will
Beattie





Modern Times

A thesis presented in partial fulfillment of the requirements for the degree Master of Fine Arts in the Department of Glass of the Rhode Island School of Design, Providence, Rhode Island.

by

Will Beattie
2024

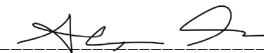
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(cover image)

Fig. 1

The first satellite image of Earth captured by Explorer 6 on August 14, 1959 at 17,000 miles above the surface of the Earth

Source: NASA

(spread)

Fig. 2

Explorer 6 Satellite

Source: NASA

Rhode Island School of Design

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on time
it's time
about time
time flies
in the nick of time
save time
next time
spare time
living on borrowed time
turn back time
time in
time out
keeping time
giving time
overtime
take time
make time
showtime
some other time
time is money
big time
no time
time heals all wounds
only time will tell
kill time
take your time
out of time
time after time
time off
a waste of time
part time
time of my life
prime time
time for a change
real time
small time
hard times
time on my hands
whale of a time
do time
in the nick of time
record time
free time
logging time
time and time again
this time

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At the intersection of glass, photography and sound lies issues of perspective, framing, and information. These factors as well as the conceptual space between object and image offer an opportunity to explore the way we register narrative through contradicting signifiers. Glass historically has been used as an instrument to reveal spaces, moments, and phenomena previously imperceptible to the human eye. This rendering of previously unseen spaces through language, technology or vision, may work to reorient the viewers' perspective and allow for a new understanding of the world. The power of disruption as a potential catalyst is central to my studio practice. In my thesis I explore the optical, and elusive nature of glass, as an interruption to our contemporary hastened understanding of images and media, while also exploring glass sculpture and photography as containers for narrative which celebrate chance, failure, the relinquishing of expectations, and reorientation.

Constructing Narrative



Fig. 3
Pres. Bush delivered his 'Mission Accomplished' speech aboard the USS Abraham Lincoln. May 1, 2003, Source: NBC

Fig. 4
Construction for New York Fashion Week, Fall/Winter 2016 Source: Creative Engineering

**IF YOU SEE
SOMETHING,
SAY
SOMETHING.**

If you see a suspicious package or activity on the platform or train, don't keep it to yourself. Tell a cop or an MTA employee. Or call the toll-free Terrorism Hotline at 1-888-NYC-SAFE.

All calls will be kept confidential. For fire and other emergencies call 911.

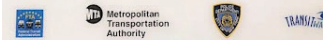


Fig. 5
Allen Kay, *See Something, Say Something*, 2002, poster. Source: New York Daily News.

While in high school, I partnered with my cousin-in-law to build various sets for the fashion industry in New York City. Working with carpenters and scenic artists we created photosets to be used for fashion advertising. Intricate and involving hundreds of parts, we constructed walls, stages, props and furniture for various events, only to dismantle them the same evening. Spectacular, yet short lived, the labor behind the sets and the experience of the viewers were in stark contrast to the themes communicated within the images.

Working for various other high fashion companies, the ideals of grace and luxury were absent within the workshops. As a laborer, I was often covered in sawdust and paint, working long hours, and falling asleep on the train home. That said, I thoroughly enjoyed the work, the comradery, and came to appreciate the labor, stagecraft, vision and ambition of the projects and designers. However, I was also conscious of the curation, editing, delineations and decisions about what is visible to the audience and consumers. Inevitably groups of individuals were left out of the frame. The images produced by the fashion industry seemed not only to edit out parts of the process, but also construct a world view that was focused on an ideal individual, an avatar of luxury, distinctly separate from the circumstances and settings which were necessary to produce the image. Susan Sontag writes in *On Photography* "Photographed images do not seem to be statements about the world so much as pieces of it, miniatures of reality that anyone can make or acquire."¹ Working within the fashion industry to construct sets seemed to exemplify the "miniatures of reality" implicit in photography.

These experiences of being behind the camera and behind the stage led me to appreciate the individuals craft behind photography, films and television shows.

It gave me a wide range of skills, and as a sculptor I learned to produce sets and props very quickly with precision, but to what end? When returning to my undergraduate sculpture program at SUNY Purchase, I had access to a similar range of tools, but as an artist I wondered what narratives would my sculpture communicate? Who was the audience? What sort of relationship to labor, to politics, to entertainment did the viewer have? Much of the work I made as an undergraduate was politically informed, research based, and sought to investigate how media informs our cultural, political, and personal experiences.



Influential at this time was artist Jon Kessler, who gave a lecture at Purchase in 2013. Kessler, who graduated from Purchase in 1980, went on to produce “chaotic kinetic installations”² critical of the Iraq War. The mechanics exposed for the viewer, further critiqued “our highly-surveilled world and dependence on technology.”³ The artwork, some carousel-like in nature and some automaton-like, inspired me to create work that acknowledged the apparatuses in which we view art. Kessler’s work depicted mechanical apparatuses that are cyclical, moving figures and photographs within a framed event while exposing the workings of the event itself. Seeing both sides of the camera and depicting this stagecraft operated as a metaphor for the presentation and power of images as well as the carnivalesque exhibitionism regarding mythologizing of war and violence within the American media.



This framing of narrative through media and images; the dynamic between creator and audience informed my work for several years to come. I gravitated towards whose work investigated cultural narratives, ideals we hold as individuals, and the function of ideals in constructing cultural, personal, and political identity. Some influential pieces from this period include Liz Magic Laser’s *The Digital Face* (2012), the Yes Men’s *The Yes Men Fix the World* (2009), and David Horvitz’s *Mood Disorder* (2012).

Creating sculptures, while working for the fashion industry, throughout college I also became interested in the writings of Michael Parenti, an American political scientist, and academic historian who was outspoken about the American Empire in the Middle East. Immediately after September 11th I became aware of the intense media frenzy leading up to the Invasion of Iraq in 2003, the rising sense of nationalism



(Both Pages)
Fig. 6-8
Jon Kessler
One Hour Photo
Mixed media with camera, monitor, postcards, lights and motor
39 x 26 x 74 inches
2004
Source: Artist Website



Fig. 9
Jon Kessler
The Palace at 4 A.M.
Exhibiton View at MoMA PS1
2005
Source: Artist Website

xenophobia, and conscription of every citizen to become the eyes and ears of suspicious activity made famous by the See Something, Say Something campaign. Beyond this I also had a family member who served as a US Marine in Afghanistan. Even writing 20 years later the role of the United States in the Middle East seems obfuscated, and is the result of largely complex historical, economic, and political ideologies.

Due to these experiences, I wanted to make work that encouraged a certain curiosity or pause when viewing images. The mechanics of posting and sharing images were becoming faster and faster. I aligned with artists who sought to challenge our typical modes of interaction and seeing. This dynamic seemed to reflect the world as I experienced it—a bit more convoluted, but also rich in its complexities. Social media, notably Twitter and Instagram were having a large effect on public discourse, political discourse, and affected our relationship to art, entertainment, and information. Perhaps I was interested in slowing down in my studio; problem solving and presenting work that encouraged the viewer to become inquisitive.



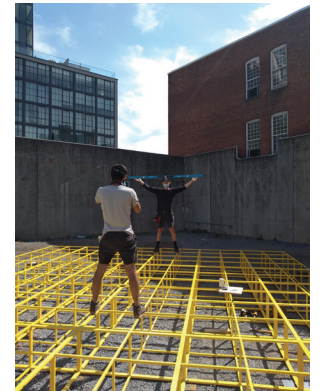
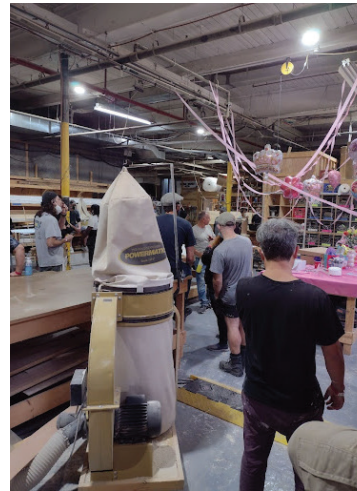
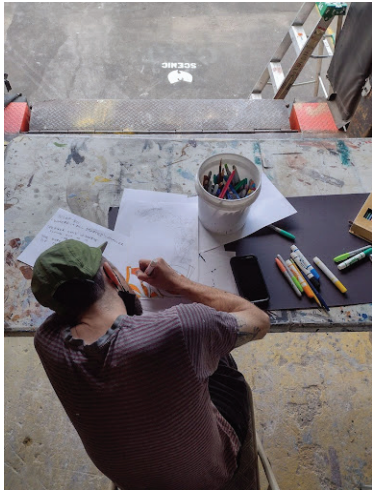
Fig. 10
Liz Magic Laser, *The Digital Face*, 2012,
performance. 10 minutes, production
still, MoMA PS1, New York. Source: Artist
Website



Fig. 11
The Yes Men *New York Times Special
Edition*, 2008. Printed Media. Source:
Artist Website



Fig.12
David Horvitz, *Mood Disorder* (detail),
2015, Artist's book, 72 pages, staple-
bound, 14 × 10 in
Source: Chert, Berlin



(both pages)
Fig. 13-20
Various images from 2017-2022, sourced from my iPhone of activities backstage, television shows, exhibitions, and photosets in progress.

1. Sontag, Susan. 2008. *On Photography*. London, England: Penguin Classics.
2, 3. Art21, Inc. Art:21 New York Close Up. [New York Art:21] : <https://art21.org/watch/new-york-close-up/mika-rottenberg-jon-kessler-wanna-make-you-sweat/>

Mapping Memory



In 2016 I was an artist-in-residence at the HEIMA art program, a newly established residency located in the town of Seyðisfjörður, at the easternmost region of Iceland. The town, surrounded by steep mountains on three sides, operated as a small port to the Norwegian Sea. Seyðisfjörður was indicative of the surreal Icelandic landscape, subject to sudden dangerous weather, yet at other times serene and still. While attending the residency I developed a keen awareness of the passing of time, a sense of resilience from the town's inhabitants, and the function of home as shelter as I had never experienced before. Many days were cold and dark, yet the 700 inhabitants of the town remained resilient, productive and happy, thriving in these conditions.

This outlook, self reliance, and ability to thrive despite the inhospitable conditions inspired me to think of the physical structure of a home, and the perspectives held by an individual, as one and the same. The structure of the home was active in its ability to create an interior space, sheltering the individual against the Icelandic landscape, and a resilient outlook allowed the individual to be empowered, enabling the individual to see themselves as a contributor to their environment and community.

Within the town I was able to explore by foot, and came across many curated windows offering glimpses of interior spaces. Fascinated by an array of windows as intimate tableaux, the windows seemed an metaphor celebrating the authorship of its inhabitants, operating as a display, a barrier, a threshold, and structure protecting and protected by its inhabitants. This threshold remained symbolic in my mind as the window became a theatrical threshold between public and private spaces. The windows in Seyðisfjörður were sites of exposure, externalized expression, yet offered visible partition between the volatile weather conditions outside and the domestic comfort of the interior, communicating the last of the winter light. In this way I began to think of the individual who also creates structures,



Fig. 22
HEIMA Residency in Seyðisfjörður,
Iceland, Source: Jessica Doucha.



Fig. 23
Exemption Likely
Digital Print
September 2016

(Left)
Fig. 21
Lottó
Digital Print
21" x 15" x 0.5"
September 2022

so they too can externalize and explore the world. What did the individual need to be resilient? French philosopher Gaston Bachelard writes in *The Poetics of Space* "...the house shelters day-dreaming, the house protects the dreamer, the house allows one to dream in peace."⁴

Living in such a harsh environment the individual needed tools and resources to survive and even to thrive in these conditions. This inspired me to think more about resilience, casting ephemeral or organic objects into permanent objects, and the role of art in creating spaces for vulnerability and contemplation. My experiences in Seyðisfjörður caused me to revisit American psychologist Abraham Maslow's Hierarchy of Needs, a theory that states self-actualization, a state of optimal creativity, well-being and self-transcendence, is predicated on fulfilling (and perhaps securing) various human needs such as shelter, food, family, and community. This theory described the individuals within the town, but also resonated with me due to the visual rendering of this idea. Language can certainly describe a space, but I'm not sure I had seen a visual diagram operating as a sort of mapping of a psychological space before. As with language, this idea now given shape and externalized, can be communicated, recognized, shared, debated and navigated. I also began to be interested in the books by psychologists Carl Rogers *On Becoming a Person* and Irvin Yalom's *Love's Executioner*, specifically Yalom's play between fiction, objective truth, insight and individual narrative as an author.

Within my first semester at RISD I decided to recreate some of the windows I had seen in Seyðisfjörður. The windows were formal structures, but also operated as metaphors for viewfinders, memories, patterns, and my own experiences of the town. The window's ability to crop, edit, enable, and restrict our view was of particular interest to me. This investigation into the malleable nature of my own memories contrasting the permanence and "rationale" of architecture, was solidified when researching into American artist Mike Kelley's Educational Complex. Kelley began his piece by sketching the various schools and educational institutions he had enrolled in. Inspired by the spatial illusionistic style of the German painter Hans Hofmann, Kelley made several blueprints of the buildings. Kelley then constructed an architectural model preserving the formality and structure of the buildings but did not construct areas of the buildings in which he had no memory of, or spaces in which his memory was repressed.



Fig. 25
Map for a Synapse, Wood, acrylic paint, graphite, Glass, 3" x 24" x 16"
October 2022



Fig. 26
Maslow's Hierarchy Of Needs
Source: Simply Psychology.org



(Left)
Fig. 24
Map for a Synapse, Wood, glass, oil paint
45" x 36" x 14"
October 2022



“Memories of the outside world will never have the same tonality as those of home and, by recalling these memories, we add to our store of dreams; we are never real historians, but always near poets, and our emotion is perhaps nothing but an expression of a poetry that was lost.”⁵

-Gaston Bachelard

Fig. 27
Mike Kelley
Educational Complex
1995.
Acrylic, latex, foam core, fiberglass, plywood, and wood.

The Scandinavian-styled windows became a sort of blueprint, a memory, and an abstraction of an experience. This tracing of one’s past, fabricating it, and abstracting the architecture led me to create *Map for a Synapse* (Fig. 23-24). I had cut several pieces of wood and referenced several photographs of the Skaftfell Art Center, located down the street from HEIMA. Utilizing some of my skills as a set builder and scenic artist I assembled the pieces together, not to construct a story for an audience necessarily but rather for myself, so I can externalize and exhaust⁶ my memory of Iceland. As I was building it, I was thinking of the bedrooms I stayed in, my internalized experiences, and the inherent logic and perspective that memories hold, which in turn can inform us in how we regard ourselves and orient ourselves to our present. I made glass marbles, thinking of them as sort of melted windows, a distorted domestic feature congealed onto itself, now an optical device that compresses, augments and reflects the room we occupy. Where does narrative, information, tracing, path, structure, and editing lead us to? How does this narrative I hold of myself describe psychological places I may or may not have access to? If I want change, do I need to see that space first? Do I need to name it before I arrive there? How does the language we use to describe something, locate our position to it? Now many years and several homes later I was in Providence Rhode Island. Were my memories even accurate at all? Could I rely on myself as a narrator? How did my perspective change between my experience in Seyðisfjörður and the present? How do I map where I stand, where I stood and the time in between?

With our exhibition coming up at Sol Koffler in December 2022, I began to explore the motif of the wasp nest. For me, the wasp nests are like cobwebs, forming spontaneously in the corner of a room; representative of a neglected space, a sign of a place we do not, or cannot access. However, unlike the innocuous cobwebs, the wasp nest is an active home, full of life, and full of potential danger. The wasp’s tendency to demand territory, sting and attack is not necessarily the fault of the wasp, it is the nature of the insect, and may be in direct conflict with a peaceful home. Sourcing shutters from abandoned homes on Craigslist, printing photographs from Iceland, and casting wasp nests in glass, I wanted to create a tension by stacking these various items and timelines. Using the shutters as frames, I cast several paper wasp nests in glass. The fragile wasp nests proved to be extremely difficult to create molds from, but I was able to utilize the hive segment as an open face kiln cast mold. I cast both the nests and various parts of the shutters into colored glass, which were presented with the painted shutters and digital photographs. I wanted to further question the authorship of how these shutters; how this entire narrative came to be. Were the shutters produced, or pulled off a home? Was this all from Iceland? Or none of it? Constructed or lived memory? What’s the difference?

4, 5. Bachelard, Gaston. 2014. *The Poetics of Space*. London, England: Penguin Classics.
6. Forslund, Karin. *DPW Lecture*. March 13th, 2024



(Above)
 Fig. 28
 Lottó, *In Case of Emergency, Heima*
 Found object, glass, digital print, wood, acrylic
 6' x 12' x 12'
 December 2022
 Sol Koffler Installation View



(Right)
 Fig. 29
 Lottó, *In Case of Emergency*



(Left)
Fig. 29
Heima
Found object, glass, acrylic, wood
54" x 28" x 28"
December 2022

(Above)
Fig. 30, 31
Heima (detail)



(Left)
Fig. 32
In Case of Emergency
Found object, glass, digital print, wood, acrylic
54" x 32" x 12"
December 2022
Digital Photograph mounted on wood frame with
attached found object and cast-glass elements.

(Above)
Fig. 33
In Case of Emergency (detail)

Concerning Time



Fig. 34-36
Untitled
Glass
12" x 10" x 10"
2400 degree glass poured over built wooden elements. Wood shape captured by flowing glass, producing a very fragile structure.

When working with glass, utilizing accurate and consistent devices to measure time and temperature is paramount. As with the case of kiln casting which directs molten glass to flow into a pre-determined shape, one can read a schedule of the firing and understand the decisions used to achieve a sculptural form. This process of analyzing, and navigating the research, fabrication, and presentation of work was always intriguing to me as a sculptor. Glass as a medium, proves to be an extremely adept and malleable container for these decisions. Not only can glass operate as a threshold, a surface, a barrier, a sculpture, a container, it can also be read as a timeline; a recording of heat, movement, density and motion.

This idea of glass as a timeline or a recording parallels the idea of glass as both a simultaneously active and static object. A lens in a room may work to illuminate, focus, bend, reflect, or scatter light depending on the way we stand in relation to it. A glass object may appear clear and enhance our perspective of a room, or is it actually distorting our view? As viewers contemplate glass forms, they can investigate it as a tool, a lens, alternating between scanning the surface, seeing through the object, and as an art object in of itself, the result of mechanical and conceptual process. Are there bubbles? Why was it important that they made this? Where did it come from? How many gathers? Is the green tinge from the iron content? How soft are the edges of the frit? How fragile is this object? Did my cast need a few more hours at 1650 °? Before I knew it, I had developed a language to understand and navigate glass, allowing me to access a space previously unknown.



Fig. 37
Early 16th Century Half-hour sandglass, Source: The Metropolitan Museum of Art



Fig. 38
Harold Lyons (right) with his invention, the atomic clock. Source: Institute of Electrical and Electronics Engineers



Fig. 39
Detail shot of Cesium, the main component of atomic clocks. Source: Popular Mechanics



Fig. 40 - 45
Various kiln cast experiments with glass, alternating heat, duration, color, and shape

As a result, I began to formally see language as a tool that defines and allows us to access to different perspectives. While reading alchemical texts such as *De re metallica*, by 16th century scholar Georgius Agricola, it seemed various alchemical recipes lacked language to describe time or temperature. I was perplexed by how difficult it must have been to understand these recipes as it seemed so imprecise. What was the experience of time, before a global time keeping system had been developed? When was a precise language for seconds, hours, minutes, days developed? I was intrigued by this idea of localized time and haphazard time keeping devices, such as candles, water towers, and mechanical clocks.

Contrasting this sentiment our contemporary understanding of time is hyper precise. For example, Hidetoshi Katori, a Japanese physicist and professor at the University of Tokyo has experimented and calibrated an optical lattice clock (a device which utilizes the wavelength of atoms) so that it may only lose a second over the course of 30 billion years⁷. How abstract! A device that describes time so precisely, so far into the future, not allowing for chance, variation, or mistakes for 30 billion years also seems to describe a place quite difficult to understand. Contemporary writers such as architect turned philosopher Paul Virilio, and cultural theorist Mark Fischer make the argument that modern technology has allowed our experience of time as individuals to be fragmented and accelerated. Virilio invented the term *dromology*⁸, which describes an understanding of history, politics and society through the lens of speed. I was interested in the genealogy of modern time, the logic present within these devices, and the way which technology shapes our perspective.

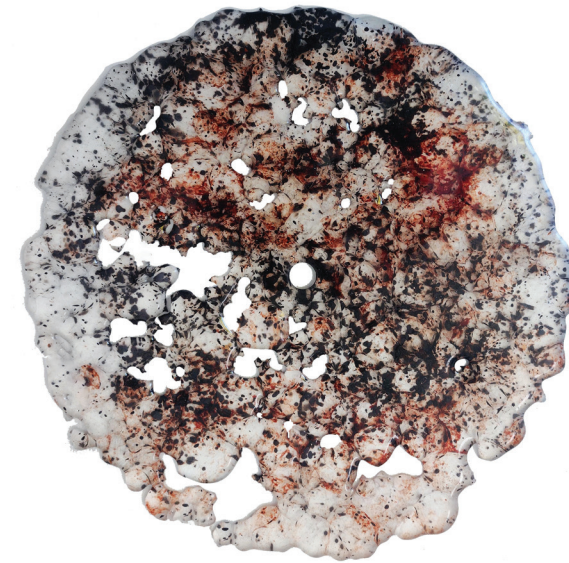


Fig. 46
Copper Sunset
Cast Glass
12" x 12" x 1"

In some ways thinking about an earlier part of history, having a distinctly different relationship to time was an exercise of imagination for me. I researched various systems developed to measure time such as water towers, sundials, marine hour glasses, fusee clocks, pendulum clocks, electromagnetic clocks and eventually the piezoelectric quartz, atomic, and optical lattice clocks. Could I too develop a way to depict or communicate the passing of time with my art? Was there another way to describe time?

I found it poetic that quartz mineral, being used to define the modern second (via its piezoelectric qualities), was the same quartz sand used in some hour glasses. I attempted to create an abstract hourglass, a frame to catch and record the falling glass. My initial experiments consisted of ladling glass over wooden structures. Sometimes the glass would bounce off or slide across the surface. The wooden structure would burn away, while the glass would cool, keeping its shape. I attempted to create two cascading glass forms to be inverted upon one another, but many of the structures were too fragile. Seeing these forms inspired me to explore glass as a material in relation to memory, capturing an action, the presence of an object, or the passage of time (Fig 34-36).

My experiments continued and I created various kiln cast forms using plaster silica mold making techniques, filling the forms with different colored glass. Colored glass is created by the inclusion of various metals and chemicals. The varying density of the metals within the glass receive heat at varying rates allowing for fluidity once inside the mold.

Once cool, the glass structure may be visually similar to the cross section of a metamorphic rock; both products of compression, time and heat. Even though I had the charts, timers, temperature, and materials, the flowing of the glass led to spontaneous compositions of color; compositions I could not predict. I had all the information for the “input” but the “output” was fairly unpredictable. I enjoyed this immensely! This was a new direction for my work, and I loved the idea of (similar to the aesthetics surrounding Fluxus Art, remix, noise or ambient music) an embracing of a disruption or unpredictability which invites a new listening or way to relate to the work. In this way the viewer can stand in a new place in which the chance; the abandonment of conventions, is the artwork. I became very excited at the prospect of using computing mechanisms such as Arduino, to create music based off “irrational” or spontaneous compositions from the glass. These audio producing devices, paired with the methodologies of mold making, seemed to stack logical and illogical systems upon one another.

Regarding technology, speed, and information I can recall a time when computers were formally regarded as tools. Growing up in the 90’s I remember dial-up and fitting only one photograph onto a 2MB floppy disc. The interface was apparent, access was slow, and time on the internet was constrained to shared devices accessible at the library, home, or at school. As a non-programmer and non-musician what were the steps that I could use to turn the glass compositions into an audio format? What information could be gleaned by a computer? What information did it miss? I begin a process of translation, inspired by contemporary artist Bartholomäus Traubeck. Traubeck utilized wood rings from trees in the Austrian forest to develop experimental audio compositions for his album titled *Years* (2013). As we use information and language to render spaces, Traubeck was giving voice to, rendering the timeline of wood rings into an audio format. This portrayal of time seemed like a sort of collaboration. Not necessarily a glitch but an opportunity for this organic chronological timeline to be heard, occupying a space of aesthetic beauty, via the visual information rendered from the machine. My projects converting light and glass into sound is titled *Open Sky* after Paul Virilio’s 1997 book.

I felt it would be a fun experiment to relinquish my aesthetics and concerns surrounding music to the movement of the glass colors within my castings. Inspired by early cinematic devices such as the zoetrope I developed a series of cast work and settled on a cylinder shape spinning via a motor. I began to learn about the Arduino system, and decided to use photoresistors, an analogue ceramic component used to measure light intensity. The Arduino once connected to the photoresistor translates the electrical resistance (as determined by the ambient light) into a scale from 0 to 1023. Using programs such as PureData and MAX/MSP, this value scale can be mapped to various instruments, synthesizers and audio producing filters. Initially using flashlights, I was inspired to use sunlight, further embracing another variable in the work, while also becoming a sort of odd sundial and musical device whose “composition” would yet again change every day.

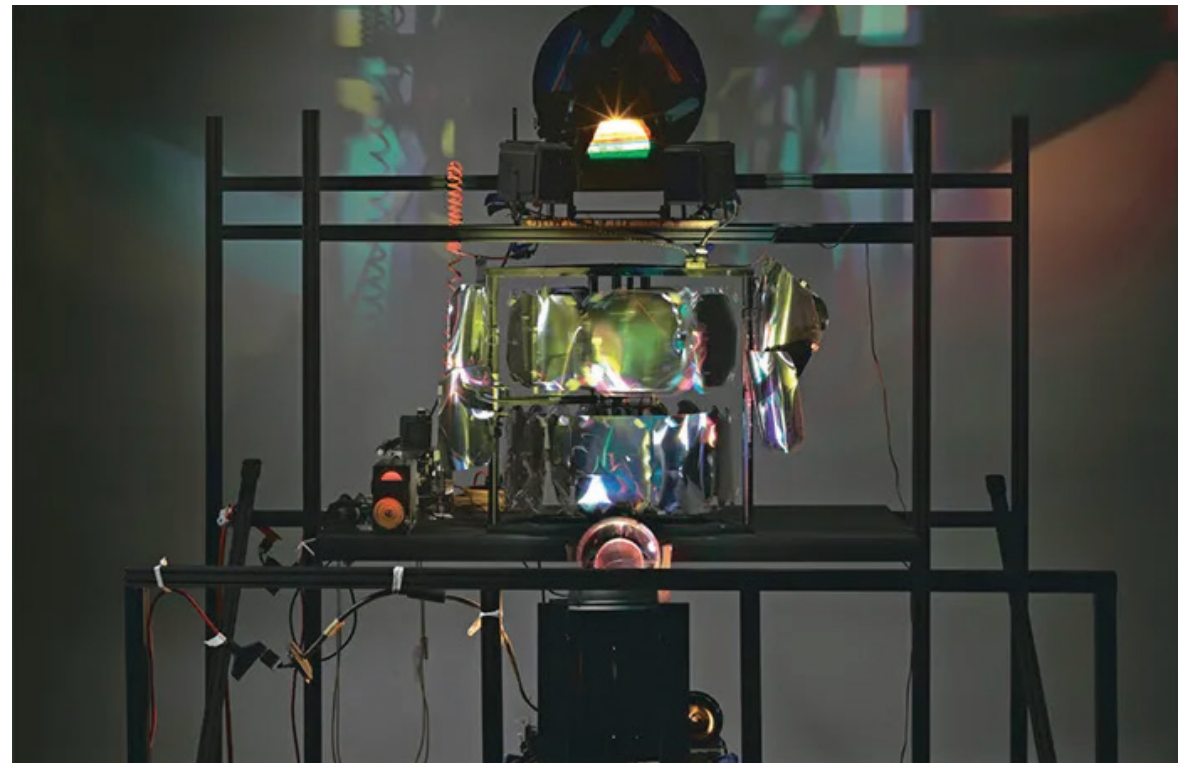


Fig. 47
The mechanisms behind Thomas Wilfred’s *Lumia Suite, Opus 158*. It would take approximately nine years, 127 days, and 18 hours for *Lumia Suite*’s patterns of color and form to repeat.⁹
Source: Yale University Art Gallery

This process for me was a meditation on time, an invitation to sit, watch, and listen to a sort of non-sensical device, whose ever changing synthesizer warble audio was produced via the “logic” of a programmed Arduino system. I didn’t see the glass and computer components as a conflict or clash, but as with glitch aesthetics and music, the pronounced “error” begins to be understood as a feature, allowing an opportunity for the viewer to recontextualize the glitches, mishaps, and errors as a legitimate artistic expression and representative of a lived experience. This embracing of glitches, mistakes, gray areas, and perhaps ugly areas not frequented (wasps’ nests), would be pivotal to my work. The moments of confusion and disruption, asking the viewer to evaluate the distinction between information or glitch, grotesque or beautiful, innocuous or threat, found or fabricated, were puzzles that seemed genuine to me.



Fig. 48
Bartholomäus Traubeck with his piece
Years
Source: Flickr Bromirski

The aesthetic of disruption were in some ways more legitimate, than the polished, edited, quickly understood images found online or in a magazine. Social media can often allow us to focus on a curated idealized image of the world¹⁰. Regarding platforms such as Instagram, Twitter, or Facebook, the viewer experiences the images, not as highly curated or the result of an incredibly complex algorithm, but as a visual experience which may work to shape our understanding of the world. The mechanics of the images are hidden and presented to us as authentic expressions of lived experiences. Not only is the subject matter and content edited, the interface, the way we interact (or inability to interact), the pace in which we navigate and flow from image to image, and virtually place to place, is seamless and rapid, further highlighting the surface as an adequate way to understand the world.



Fig. 49
Hiroshi Sugimoto, *Fox Theater Detroit Michigan*, gelatin silver print, 1979,
Source: Artnet.com

I've always been inspired the Letterist director Isidore Isou for his 1951 manifesto-as-film *On Venom and Eternity (Traité de Bave et d'Éternité)*. The film argues for the renouncing of artistic form, celebrating absurdist art as a vehicle to describe an "impulse"¹¹ beyond the conventions of spoken language. The film itself descends into complete abstraction, "Vomiting up old masterpieces"¹², exploring the parameters of how visual language communicates narrative, as well as the intellectual, political, and emotional places we can explore when we actively reject ideals.

Installed with a motor, headphones, a chair, in front of a window in my studio, viewers were invited to sit and watch the glass structure spin. As a conceptual pursuit I found my project to be incredibly valuable. A legitimate experiment, dipping my toes into the worlds of glitch and ambient music, Fluxus artists, DIY instruments, and coding. I began to think more about ideas regarding cinema, music, aesthetics, and perception, as well as the dynamics of art and the viewer. I had a newfound appreciation for the work of Thomas Wilfred and Hiroshi Sugimoto, regarding ideas of spectacle, the speed in which we view art, and the dynamic between viewer, artist, mechanism, and chance. To this day I am still working out various methods to translate the colors of the glass into instrumentation, using a variety of methods such as Adafruit's TCS34725 color sensor components, UV sensor components, Ableton Live's Midi system, various stepper motors, 3D printed forms, various glass forms and micro computers such as the Raspberry Pi. It is a legitimate process of discovery I hope to continue for some time.

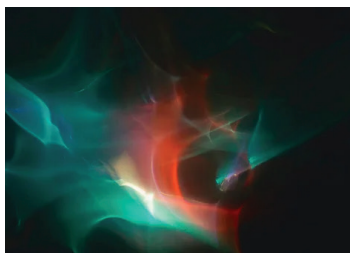


Fig. 50
Thomas Wilfred, *Lumia Suite, Opus 158*. Still from on-going projection
Source: Yale News

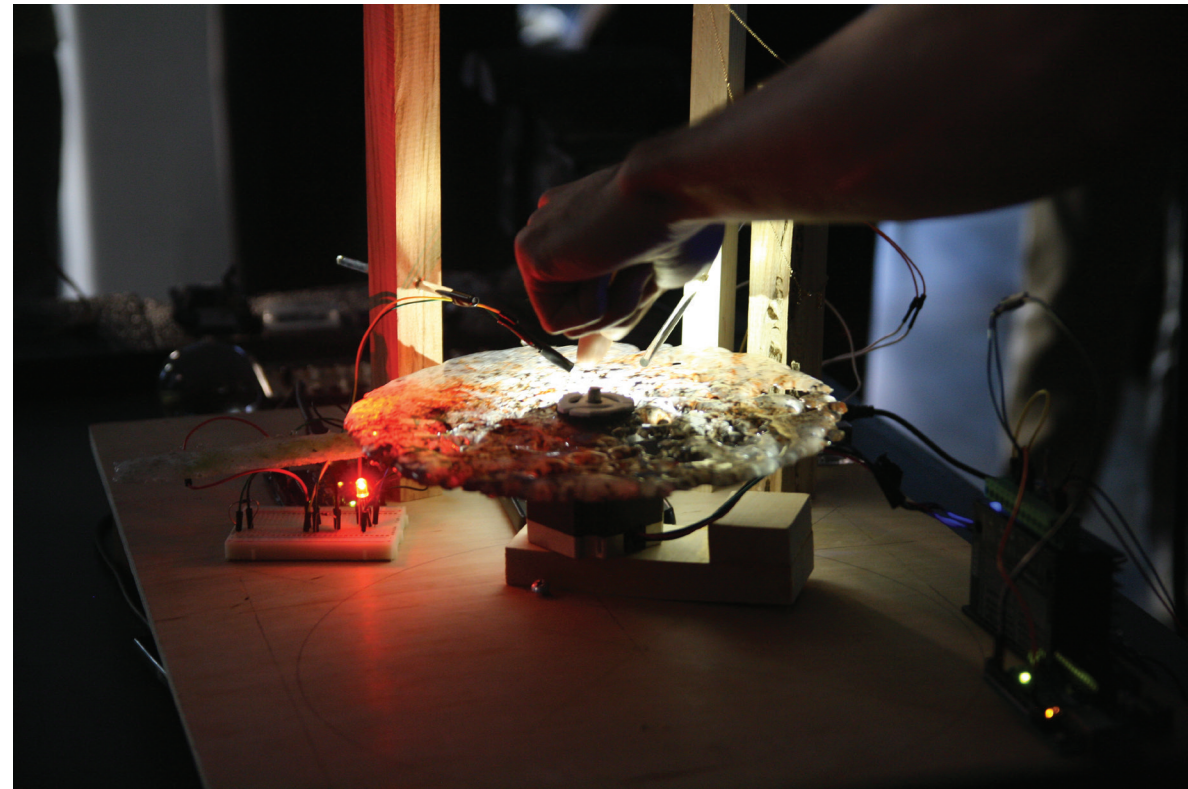


Fig. 51
Prototype for *Open Sky Copper Sunset* (Fig 40) placed on stepper motor, with piezoelectric sensor, photoresistor and RGB led.
February 2023

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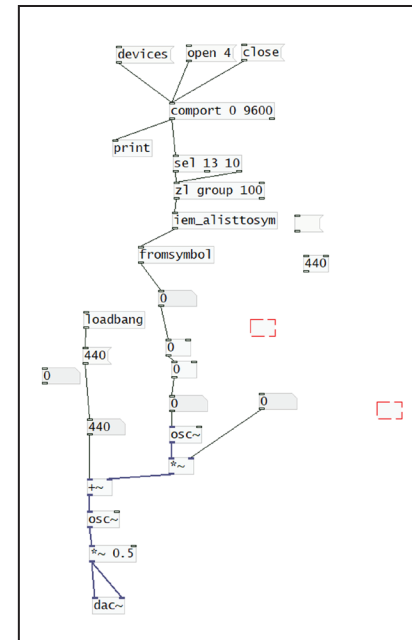
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Fig. 52
Harmony In Ultraviolet (Open Sky)
Cast Glass, Sunlight, Motor, Arduino, PureData, -
Headphones.
40" x 40" x 40"
October 2023-Ongoing





(Left)
 Fig. 53
Ikebana Arrangement #1
 Digital Print, Plywood, Foamcore
 2' x 3' x 8"
 December 2023

(Above)
 Fig. 54
 PureData "patch" translating photoresistor analogue data from Arduino into audio.

Virtual Spaces

If glitches and “interrupted” images allowed space for the non ideal, what did stretched or anamorphic images communicate? I began to research more about anamorphic images and was reminded of Hans Holbein’s *The Ambassadors* (Fig. 38) which features an anamorphic skull. When I was younger, I was in awe of Mannerist painters who, rejecting the aesthetic ideals of the Renaissance, opted to embrace the theatrical and illusionistic qualities of painting. The painters emphasized surrealism, allegory, and tension via the use of secondary colors, scale and exaggerated forms. Some paintings that stand out to me are Bronzino’s *Allegory with Venus and Cupid* (1545), and Veronese’s *Allegory of Virtue and Vice* (1565).

I continued my cast Wasp Nests, and was able to have more command over the surface quality and shape of the glass castings. Initially the fragile nests were extremely hard to cast. Even a skin safe material such as alginate was too heavy pushing and flattening the nests. I tried to 3D print the nests, generating an STL with the 3D scanner (Artec Spider) at the RISD’s Nature Lab but got mixed results. I was intrigued that the Artec Spider had difficulty capturing the paper surface, which further sparked my interest in the mechanics of digital translation and information. Eventually I mixed and applied fabric stiffener, clear gesso, and wood glue to reinforce the nest so that it would hold the weight of the mold making silicone. Once cast in glass I was pleased with the results. I sandblasted the object to create a matte surface, and introduced a slumped piece of stained glass as a barrier between the cast and an found nest that had been torn open.

Inspired by Charisse Pearlina Weston’s work I began to see the glass objects as surfaces, barriers, filters, delineating space as well as vehicles for information, enhancing or obscuring our view. I arranged the work so that the viewer entering the room would see the cast object initially, and then see the organic nest through the filter. Titled *Prägnanz*, I wanted to explore the experience of observing something we may not recognize, or more specifically the process of integration. A psychological process to allow something (a person, place, object, or event) we once feared to become recontextualized into something static, benign, or even beautiful. How do we begin to shift our own perspective of a negative experience (or something we “know” to be dangerous),



Fig. 55
Hans Holbein the Younger, Jean de Dinteville and Georges de Selve (*The Ambassadors*), Oil on Oak, 81” x 83”, 1533, Source: The National Gallery



Fig. 56
Albrecht Dürer, *Melencolia I*, Engraving 9 7/16” x 7 5/16”, 1514, Source: The Metropolitan Museum of Art

(Left)
Fig. 57
Prägnanz, Cast Glass, found object, stained glass, 20” x 20” x 20”
November 2023



Fig. 58
Rachel Whiteread, *Untitled (Clear Torso)*,
Cast
Resin, 3" x 10" x 7" , 1993, Source: Artist
Website

so that we can bring that event closer to us to investigate it? And when it is closer, how do we hold it? Is it large? Small? Is it fragile? Heavy? How do we name it? Is it still dangerous? Constructed fear or...? Logical or...?

I've always been interested in social and political narratives, but revisiting Roland Barthes and Stuart Hall, whose writings focus on semiotics and mythology, highlight the nuances regarding the conception of an object, the way culture renders meaning and the implicit logic in those evaluations. Continuing the wasp nest castings, I wanted to find another motif to further explore our delineations surrounding the way we identify notions of glitch, mistake, danger and ideal.

I began to experiment with 3-D rendering software and 3-D printing. With programs such as Rhino I would be able to make anamorphic sculptures. I could print and cast anamorphic sculptures that would look distorted, perhaps unrecognizable until placed next to a corresponding reflective cylinder. A reflective cylinder or sphere visually "compresses" the space and the objects it is reflecting. But a "stretched" anamorphic sculpture when placed next to the cylinder may appear proportional and recognizable as it becomes compressed within the reflection. This idea of distorting an object digitally (perhaps sourced from a digital space), and then casting it in glass, a material historically used in lenses (to enhance our vision) was very conceptually intriguing to me. I enjoyed the idea of making these non-sensical, absurdist, cast glass sculptures, whose distorted visual appearance may allude to a logic beyond our immediate vision or understanding.



Fig. 59
Robert Gober, *Xcrib*, Painted Wood, 44 x
50.5 x 33.3 in, 1987, Source: Paula Cooper
Gallery

The anamorphic images, as the zoetrope and early cinematic devices seemed representative of a foundationally different relationship to images, as compared to the way we experience images today. In a way, I feel these early cinematic devices give a new meaning to the term *Trompe-l'œil*. When we spin the zoetrope we watch the images combine to create an animation. The mechanisms are evident, but we still we still experience "apparent movement"¹³. As glass sculptures may encourage us to explore our own orientation through sight and movement; crouching, moving, watching the light, anamorphic sculptures may have a similar parallel quality.



Fig. 60
Installation View (*Prägnanz, Dürer's Polyhedron, Gestalt, Ikebana Arrangement #1*)
Cast Glass, found object, stained glass, digital print
December 2023

Both may be classified as static but as we approach and change our position we receive new information. The anamorphic mechanism may be apparent, but we still experience a disorientation, or reevaluation of our own sense of sight. Even this experience of unfurling may describe the way allegory operates. The idea that objects represented are static, yet their placement, proximity, and juxtaposition are active (and are activated) in describing the context in which the viewer can develop a narrative.

For some time I thought it would be interesting to make a “false mirror”. I wanted to cast an object and then produce its perfect replica but mirrored. I struggled with how to do this. The only idea I came up with was making an extremely thin mold of an object and then turning it inside out. This sounded extremely difficult; however, the process of mirroring would be possible using digital methods such as Rhino. I painted a small wasp nest with matte white paint (as to be better read by the 3-D scanner), returned to the Nature Lab and successfully scanned the object. I was able to scan the directional twig as well, which I felt would aid to the illusion of the sculpture. Once the digital file was created, I could produce its reflection, perhaps cast the negative space around the object, stretch it, create an anamorphic sculpture; I had many options. I was able to cast the reflection of the nest in blue glass and printed the nest in its original orientation with PLA gray filament. I then painted a wooden frame gray and placed the frame between the two objects, as to allude to the presence of a framed mirror. I added a few shims to match the angle of each object.

As with my previous work, it seemed to stack some complexities upon one another. The viewer may see a reflection, but each object was composed of a different material. Were both 3-D printed? Was there a mirror? Are the objects identical? Regarding our relationship to the image, a single point perspective quickly understood and consumed, I wanted the viewer to walk around the object, and investigate their own way they observed the sculpture.

Ansel Adams, the American photographer founded the collective called Group f/64, referring to the 1/64 aperture setting of a camera lens. The aperture opened to this size would allow for the depth of field of the image to be immense, capturing both the foreground and distant objects all within focus. This augmented portrait of a landscape is not achievable with our own eyes. As I was able to create a reflection of an organic object by using 3-D programs, can I return to the mechanics of photography, it's artistic potential to render, communicate, and compress imaginative and actual spaces, as a template for the potential of making 3-D printer generated art?

Lenses can certainly enable us to see both micro and macro-objects, but cameras, capturing an image, can register temporal¹⁴ moments that exist beyond the capacity of our eyes. Cameras can be exposed for a variety of lengths, such the long exposures of Hiroshi Sugimoto's *Theater* series, or can suspend motion such as Yves Klein's *Le Saut dans le vide* or inform about the workings of the everyday such as Eadweard Muybridge's *Animal Locomotion, Plate 626*. What about blur? Out of focus images? Or mistakes?

As Hito Steyerl humorously asks in her essay *In Defense of the Poor Image*: “Comrade, what is your visual bond today?”¹⁵ As the poor image may disrupt an aura, the translation, mistranslation, and manipulation of objects may allow disruptive movements of thought, which in turn can affect our quick digestion of images, and our patterns of observation. I was excited at this potential. As with glass and Arduino, I had little experience with 3-D rendering programs, but operating between the conceptual spaces of digitally generated forms, the narrative potential of photography, and using glass as both an optical and sculptural material, the potential to discover a odd mistranslation which resonated at “true” for me was high.

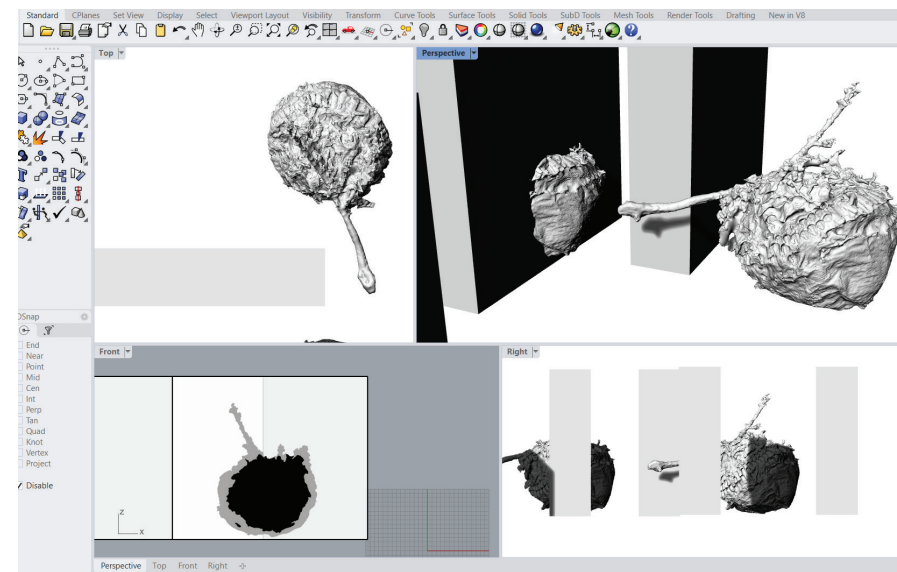


Fig. 61
Rendering of Wasp Nest on Rhino

I see myself there where I am not, in an unreal, virtual space that opens up behind the surface; I am over there, there where I am not, a sort of shadow that gives my own visibility to myself, that enables me to see myself there where I am absent: such is the utopia of the mirror. But it is also a heterotopia in so far as the mirror does exist in reality, where it exerts a sort of counteraction on the position that I occupy.¹⁶

-Michel Foucault
Of Other Spaces: Utopias and Heterotopias

13. Alphen, Ernst Van. *Failed Images*. Valiz, 2018.

14. Herbert, Martin. *Slow Painting*. Hayward Gallery Publishing, 2019.

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Conclusion

Recently, I was able to curate an exhibition titled *Viewing Velocities* at Brown's Ladd Observatory. Inspired by Marcus Verhagen's 2023 book of the same title, the exhibition featured artists Mara Menahan, Georgia Rhodes, Elena Bulet i Llopis, Srikar Hari, and myself. The aim was to interrupt and play with a viewer's sight, calling into question their abilities to perceive through various visual compositions and signifiers. I wanted to provide an alternative to the way technology, apparatuses, and visual language work to shape our understanding of the world. I felt strongly about curating the exhibition at the Ladd, built in 1891, as it represents a strong contrast to the quick consumption, and disposal of images and information we experience today. With this conceptual backdrop I felt like the 12" refracting telescope on the 2nd floor of the Ladd, was another sculpture in the exhibition, a mechanism which represents and generates a certain way of mapping the world. Within my studies at RISD and within the Glass Department I've enjoyed the commitment from both the students and professors to refuse the notion that the observable surface is an adequate means of understanding. I hope my exhibition at the Ladd was a testament to this notion, that worked to reframe unfamiliar, stacked, delayed, hidden and interrupted images not as errors to be ignored and dismissed, but as catalysts for growth, contemplation, and a reflection on our own limits of narrative and perception.

The exhibition at the Ladd was a challenging installation but extremely rewarding. My experience at RISD parallels this sentiment. It was a difficult decision to get here, difficult while I was here, but all-in-all a great experience and just the start of many things. The glass world is a tight-knit community and opportunities I previously believed were out of reach, now seem more accessible as I have the tools to map and take steps towards those goals. The past two years as a student have been a great deep dive into understanding glass as a material and its ability to operate as a vehicle for the artist's voice. In a way, I feel working with glass, the shaping and reshaping of an infinitely amorphous material is similar to writing. It's ultimately the artist's decisions and dynamic with the material that creates meaning, yet unlike stagecraft and sculpting with other materials, the artist's decisions and relation to the material is not so easily disguised, hidden, or dismissed. Learning to navigate glass has been an in-depth process, and I constantly remind myself that this is one moment within a longer journey.



Fig. 56
On Fear
Cast Glass, PLA, wood, acrylic
April 2024
Photo: Elena Bulet i Llopis

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