

Syracuse University

SURFACE at Syracuse University

Architecture Senior Theses

School of Architecture Dissertations and
Theses

Spring 5-2023

Toxic Glacier: Confronting Our Society's Consumerism Culture

Valeria Otero Lopez

Follow this and additional works at: https://surface.syr.edu/architecture_theses



Part of the [Environmental Design Commons](#)

Recommended Citation

Lopez, Valeria Otero, "Toxic Glacier: Confronting Our Society's Consumerism Culture" (2023). *Architecture Senior Theses*. 543.

https://surface.syr.edu/architecture_theses/543

This Thesis, Senior is brought to you for free and open access by the School of Architecture Dissertations and Theses at SURFACE at Syracuse University. It has been accepted for inclusion in Architecture Senior Theses by an authorized administrator of SURFACE at Syracuse University. For more information, please contact surface@syr.edu.

TOXIC GLACIER

Cofronting Our Society's Culture On Waste



TOXIC GLACIER:
Confronting Our Society's Culture on Waste

Valeria Otero López

Thesis Advisors:

Jean-François Bédard

Britt Eversole

Julie Larsen

Syracuse University School of Architecture

Fall 2022 - Spring 2023

TABLE OF CONTENTS

01 ABSTRACT

02 INSPIRATION (ART & DESIGN)

03 INSPIRATION (THEORY)

04 PART I

05 BLUE FOAM + ACETONE

06 MELTED FOAM + PLASTER & ROCKITE

07 LAYERING

08 TIME + WEATHERING

09 PART II

10 RESOLUTION

11 CONCLUSION

01 ABSTRACT

American life is predicated on the deliberate concealment of waste. To address our society's rampant culture of discarding objects, this project proposes a new waste management system that targets the waste crisis, as it is excessively generated and mismanaged. This proposal pushes waste to remain proximate and visible to city residents. As an exemplification, NYC was chosen as a site for analysis.

Those who produce waste the most, feel the impacts of their traces the least. The waste crisis has reached an alarming critical condition, and because waste has become such a complex topic, it goes beyond what the typical person can grasp. Keeping waste hidden away does nothing more but contribute to people's ignorance of how detrimental our disposal practices are to the environment. This could be partially blamed on those who have control over the city, as they love to falsely portray their spaces as ideal. These spaces are supposedly clean, green, and happy. The public realm and places for collective gathering are there to please the people. The city feels the need to create a deceitful perception for people to want to be a part of it, and doing so requires hiding the ugly truth that lies behind what the city chooses to depict.

02 INSPIRATION (ART & DESIGN)

DANIEL ARSHAM

ALBERTO BURRRI

OLAFUR ELIASSON

URS FISCHER

LUCIO FONTANA

NIR HOD

ANNE HOLTROP

CARLO SCARPA

ROBERT SMITHSON

PETER ZUMTHOR

DANNIEL ARSHAM

American Artist (1980 - present). In his artwork, he explores the themes of architecture, history, and the process by which time passes. His works include the use of conventional and unconventional materials, such as amethyst, volcanic ash, calcite, glass, pyrite, and eroded concrete, creating a sense of decay and deterioration. He illustrates futuristic and dystopian aesthetics through familiar objects, conceptualizing the past, the present, and the future.



Bulls Jacket % % _ Steel
2015

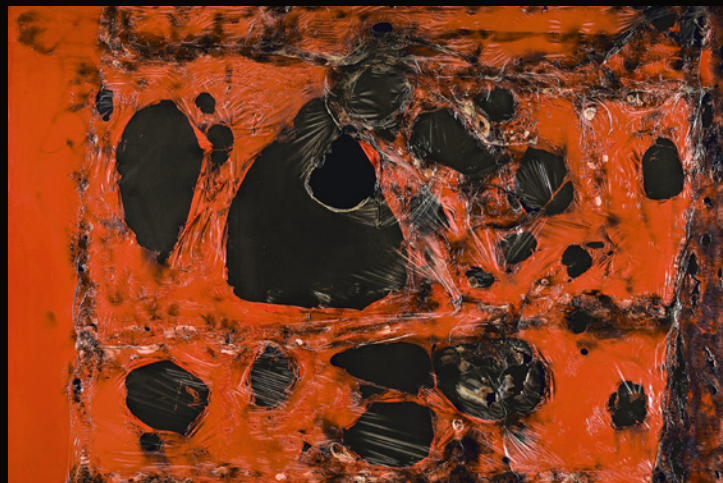


Hourglass _ 08
2017

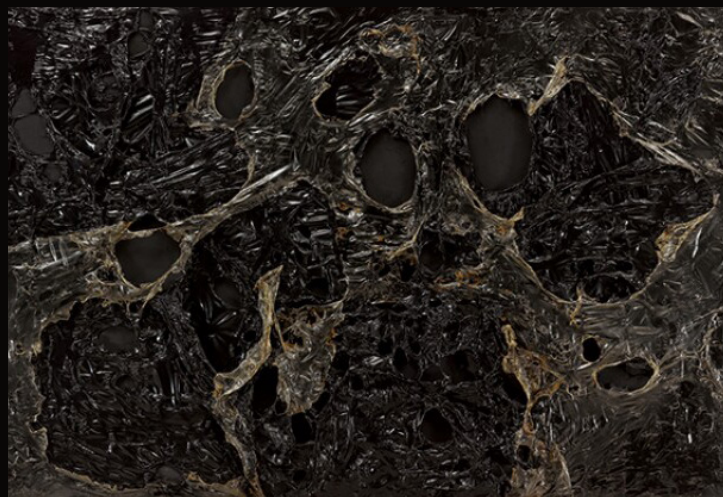
ALBERTO BURRI

Italian artist (1915 - 1995). As a prisoner of war during World War II, his art expresses the trauma and suffering he experienced. He is known for the use of unconventional materials in his artwork, including his series in which he eradicates plastic. Although he is applying heat to the material, it is the plastic that determines how and what organic form to take. He conceptualizes that the artist doesn't have full power over what will happen to the piece.

Rosso Plastica M 2
1962



Nero Plastica L.A
1963



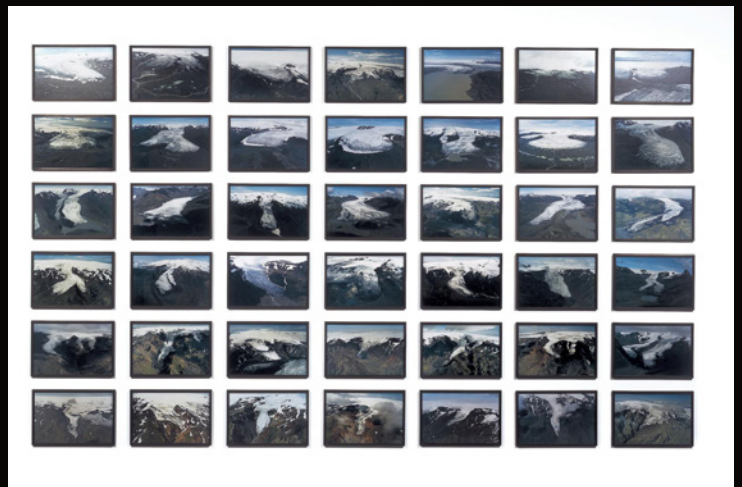
Grande Bianco Plastica
1964



OLAFUR ELIASSON

Danish-Icelandic artist (1967 - present). Known for incorporating elements of nature and the environment in his work, drawing attention to the impact of climate change. In both *The Glacier Series* and *Ice Watch*, he depicts ice formations in various states of change and transformation. He describes these as “visual alarm clock”, hoping that individuals take action on what’s happening to our planet.

The Glacier Series
1999



Ice Watch (London)
2018



URS FISCHER

Swiss Artist (1973 - present). His work explores themes of transformation of reality, as he questions how our perceptions of the world can be informed through our cultural context. He uses familiar materials and forms but presents them in unconventional ways. He often uses wax in his pieces, inviting one to think about the mutability of form in our surroundings. "YOU" is concerned with the relationship between the individual's identity and the spaces they inhabit.



YOU
2007



Untitled
2011

LUCIO FONTANA

Italian artist (1899 - 1968). He challenged the role of conventional artists. His Ceramica Spaziale series used traditional ceramic techniques while incorporating elements of abstraction, expressing his theoretical approach to inform about space. The still sculptures reflect ideas of movement and dynamism, creating a sense of spatial complexity while rejecting the solidity of the material.

Ceramica Spaziale
1949



Ceramica Spaziale
1953



NIR HOD

Israeli Artist (1970 - present). Interested in the concept of presence and time. He conceptualizes the ideas of death and loss, inviting people to reflect on how these affect our relationships with others and our sense of identity. His melancholic work deals with how memory shapes our understanding of the world, reinforcing the idea of life being impermanent.

Once Everything Was Much Better Even The Future
2014



Exile
2022



ANNE HOLTROP

Dutch architect (1977 - present). His work focuses on material, structure, and form studies. He explores ways in which architecture can create a sense of place and connection to the environment. His studio's "Material Gestures and Found Forms" studies express interest in materials that are not often related to the architecture culture, reexamining and reinterpreting these until they can be then seen as architecture form and structure. Overall, he encourages viewers to consider ways in which architecture and nature interact, creating a sense of place and connection to the environment.



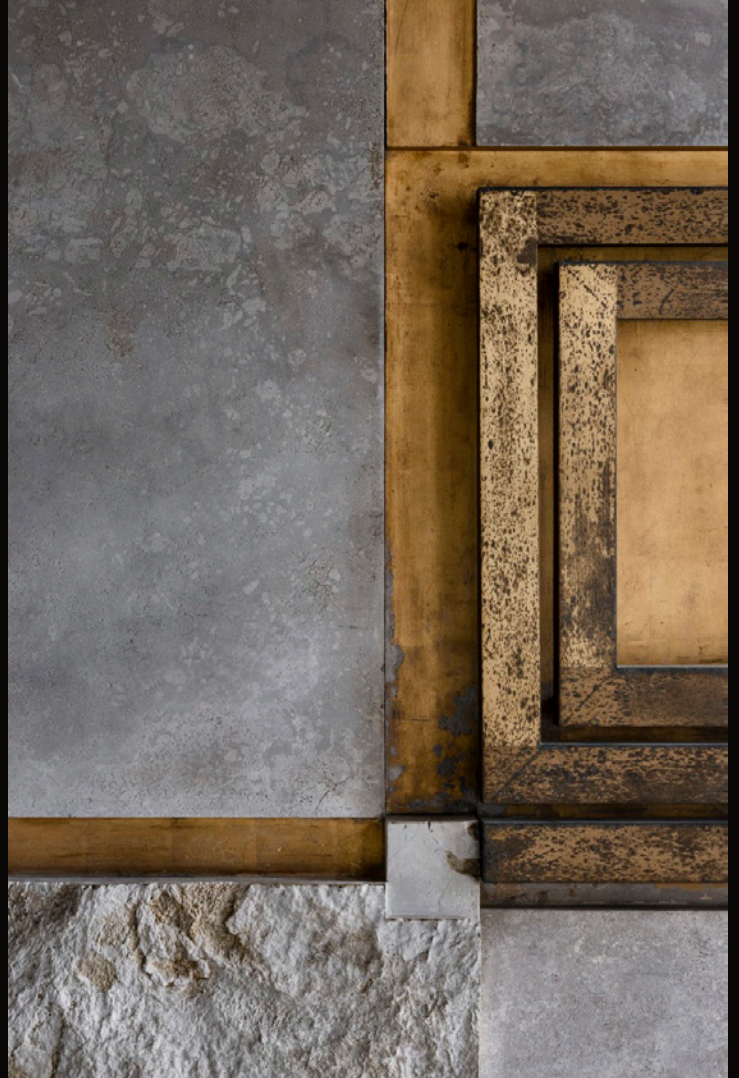
Material Gesture
2018



Material Gesture
2019

CARLO SCARPA

Italian architect (1906 - 1978). His work is best known for his attention to detail, while often using materials such as stone, glass, and concrete. He draws attention to the effects of weathering and time of these materials, and what impact the appearance of these could add to the character of buildings. He would use special chemical solutions on the materials, enhancing the effects of weathering over time in his designs.



Olivetti Showroom
1958



Palazzo Querini Stampalia
1961

ROBERT SMITHSON

American Artist (1938 - 1973). He is known for his development of conceptual land art by rearranging enormous quantities of dirt, rock, and other materials found within the landscape. Influenced by environmentalism, he explores the themes of time and entropy. He believes that art should engage with the natural world in a meaningful way. The use of industrial materials in his work, such as glue, critiques everyday used materials within modern art, while still achieving organic forms.



Glue Pour
1969



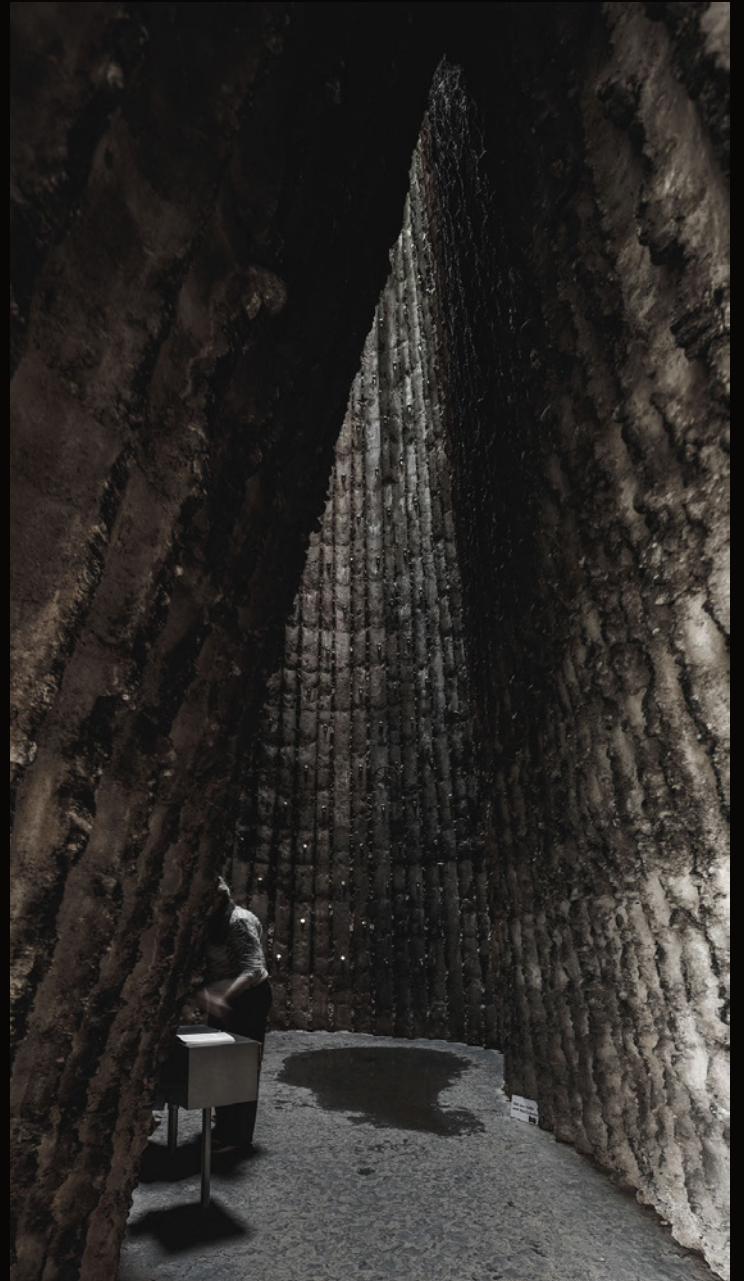
Spiral Jetty
1970



Partially Buried Woodshed
1970

PETER ZUMTHOR

Swiss architect (1943 - present). He is known for his contemplative design approach. The Bruder Klaus Field Chapel, designed by him, is a concrete structure with oak tree trunks supporting its roof. The oak trees were cut down, burned in a special kiln, and then used as exterior cladding for the chapel, giving it a dark, organic appearance that blends with the environment. The charred wood is resistant to decay and insects, in contrast to the wood at its original state.



Bruder Klaus Field Chapel
2007

03 INSPIRATION (THEORY)

HANNAH ARENDT

GIULIANA BRUNO

STEPHEN CAIRNS & JANE M. JACOBS

MANUEL DELANDA

CAITLIN DESILVEY

ADOLF HILDEBRAND

JEFFREY MAITLAND

MOHSEN MOSTAFAVI & DAVID LEATHERBAROW

FARSHID MOUSAVI

JOHN ZEISEL

HANNAH ARENDT

"The public realm, as the common world, gathers us together and yet prevents our falling over each other, so to speak. What makes mass society so difficult to bear is not the number of people involved, or at least not primarily, but the fact that the world between them has lost its power to gather them together, to relate and to separate them."

Hannah Arendt on "The Human Condition"

Elaborates on the understanding of humanity being shaped by industrialization. She argues that the problem with modernity has led us to take a contemplative turn to the political and that we have a life with no engagement. She elaborates on the idea that public spaces allow for the participation of people in the political conversation, and that action must happen in these spaces.

GIULIANA BRUNO

"This is the perfect cloth to suit your soul. It shows its inner folds. It contains the force of spirit exerted on the architecture of your body, molding its inner surfaces. To fold, after all, means to envelop, embrace, and hug. It is the intensity you covet. 'Pleats, please.'"

"This kind of architecture, a transitory habitation, is indeed transformative"

Giuliana Bruno on "Pleats of Matter, Folds of the Soul"

Interested in the relationship between one and space, she extends on the idea that as we put ourselves in an environment, we absorb these, and these absorb us. The environment that surrounds us affects how we interact with what's present. Space is part of us and we are part of space. To occupy a space is to wear it — building is not only worn; it wears out.

STEPHEN CAIRNS & JANE M. JACOBS

"Biological and ecological concepts of decay are full of activity, exchange, acquisition and redistribution. Decay is as life-giving as it is life-taking."

Stephen Cairns and Jane M. Jacobs on "Buildings Must Die: A Perverse View of Architecture"

Both elaborate on how decay is often thought of negative as it is tied to the idea of a destructive process. However, decay is part of an inevitable life cycle in life and in architecture, claiming that change and transformations should be celebrated and embraced rather than "hidden" or renovated. They contemplate architecture for its original state and how this one ages as time goes by, rethinking how one values building.

MANUEL DELANDA

"One way of describing the situation is to say that the spontaneous changes that animate matter from within always take place one dimension lower than the space formed by the parameters triggering the changes."

"This means that adding a new part involves changing the positions of many other parts. In a cell, parts are more flexible and the overall topological connectivity of the assemblage is more important than its metric properties, so that a new component appearing by random mutation can be more easily accommodated."

"A capacity to affect always goes with a capacity to be affected."

Manuel DeLanda on "Matter, Matters"

Evokes thought on the different general understandings on matter. Matter is capable of change. Its imperfections are important at the moment of endurance. It can evolve. It's able to sense change to prevent material failure. Some materials are subject to change thanks to the specific environment around them. Having this in mind, one can get endless opportunities with what matter can do.

CAITLIN DESILVEY

“Intervention and treatment aim to protect things from outright destruction or neglect as well as more indirect processes of erosion, weathering, decay, and decomposition. But what happens if we choose not to intervene? Can we uncouple the work of memory from the burden of material stasis? What possibilities emerge when change is embraced rather than resisted?”

“Decay has been allowed to run its course out of an appreciation for its aesthetic effects.”

“Decay occurs when a complex of biological, chemical, and physical processes — each driven by specific agents and elements — combines to break down the integrity of a substance and to make its components available for enrollment in other projects.”

“In relation to built structures and artifacts, decay is usually framed either through a “logic of loss” or a logic of renewal and rebirth.”

Caitlin DeSilvey on “Curated Decay: Heritage Beyond Saving”

Discusses the benefits of architecture that’s in a state of deterioration. One needs to understand the effects of preservation and how these affect the cultural and social aspects of a given environment. Rather than renovating structures in order to keep these as “perfect” as possible, letting these decay is sometimes a better approach to expose the true meaning of a given artifact.

ADOLF HILDEBRAND

"The more an artist nurtures the idea of space in the appearance, the stronger the experience one will have."

"The more coherent and recognizable the surface effect of the object's image is, the more coherent is the idea of depth [...] Figures form a spatial value in conjunction to the background."

Adolf Hildebrand on "The Problem of Form in the Fine Arts"

Extends on the formal elements of art and how these can be perceived. For better interpretation of the "bigger image", one should be looking at the different elements in context. One's understanding of what's presented will vary depending on one's ability to comprehend the separate pieces as a whole, which can be differently perceived by changing one's vantage point.

JEFFREY MAITLAND

"We know what we are made out of, but we do not know who we are."

"Experience seeks a language in which to show itself."

"Since we are fundamentally in time and of time, we are at this very moment lapsing and not lapsing, passing and not passing, aging and not aging."

Jeffrey Maitland on "Spacious Body: Explorations in Somatic Ontology"

Overall, he writes about the bodily perceptions of reality and how we are defined by the limitations of our physical form. We are also affected by the notion and complexity of time, while being in a constant state of change. He argues that we need to find a new type of language that suits "the nature of life / the human body self / transformation."

MOHSEN MOSTAFAVI & DAVID LEATHERBARROW

"In the process of subtracting the 'finish' of a construction, weathering adds the 'finish' of the environment."

"The use of the same technologies throughout the world does not always take the uniqueness of places into account."

"Greater thickness usually results in longer durability, the latter being proportioned to the former. Erosion of a surface through weathering exposes newer surfaces of the same material in its depth, at once the erasure of one surface and the revelation of another."

"In the time after construction, buildings take on the qualities of the place wherein they are sited, their colors and surface textures being modified by and in turn modifying those of the surrounding landscape."

"Weathering marks the passage of time [...] Time's passage in architecture includes a building's inception, construction, and inhabitation."

Mohsen Mostafavi & David Leatherbarrow on "On Weathering: The Life of Buildings in Time"

Both write on how the concept of time and weathering affects what's built while providing case studies (with images) showing the effects of such. As time passes, structures and materials decay due to environmental factors. They argue how embracing the natural changes can then help develop a new character of a building, even enhancing its intended use as a result. Because of this, it is important to design knowing how materials will respond to natural forces, and that these will be able to resist and adapt over time.

FARSHID MOUSSAVI

"Physical form must be preceded by a fundamental principle or cause."

"The function of each built form consists in a transversal process in which the production of forms and the performance of forms are combined."

"A distinction needs to be drawn between the New and the Novel [...] The New relies on an external, autonomous force to bring about an abrupt and complete change in a particular cultural sphere, discarding all existing forms [...] The Novel, by contrast, is the product of evolution rather than revolution - the result of one existing form combining with another to become a different form that meets a specific purpose, a cause."

Farshid Moussavi on "The Function of Form"

Concerned about the concepts that have molded our notion of the built environment, she writes about the relationship between function and form, and how in our century, rapid global changes and the increasing complexity of cities have affected how one perceives the relationships between these. Form is ultimately an important factor when determining how one experiences and uses a building.

JOHN ZEISEL

"Physical environment relates to people."

"How individuals manifest personal identity within physical environments designed for large groups."

John Zeisel on "Social Science Frontiers; Occasional Publications Reviewing New Fields for Social Science Development - Sociology and Architectural Design"

Expresses concern about public spaces and how these are taken over by people, questioning if these are truly public. Claims that it is important to know who you're designing for and understand their needs. One also needs to understand programming for people to find its best use.

04 PART I

I explored the manipulation of various artifacts and one can see how these undergo a series of mutations, either by physical or chemical transformations, ultimately pushing for deterioration and decay, and later exploring ways to encapsulate the toxic remains.

While exploring these, I was exposed to artists whose work reflects their spatial and environmental understanding. They showed how design can be used to communicate, provoking others to think, to wonder, and to create more of these works that express what surrounds us. The following physical artifacts spatialize the notion of how there are endless processes of transformation in our environment.

05 BLUE FOAM + ACETONE

In the following study models, acetone acts as a destructive and disintegrative element in the chemical reaction process.

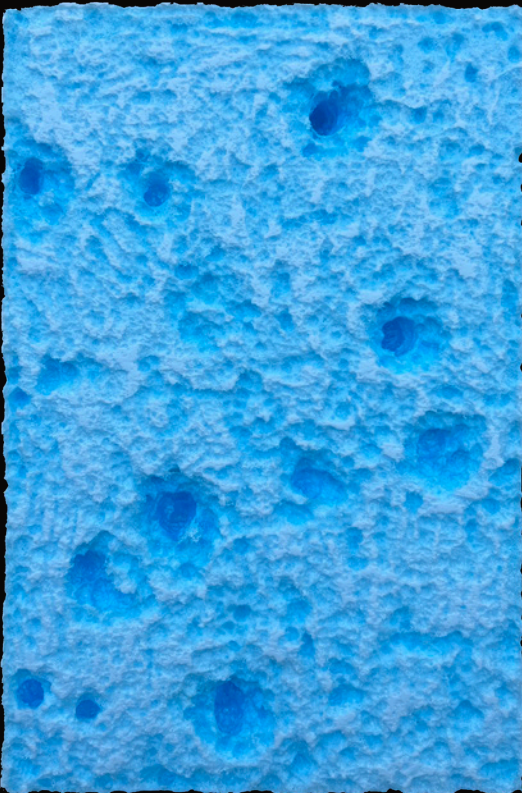
While working on these artifacts, I started conceptualizing ideas of time, gravity, and erosion.

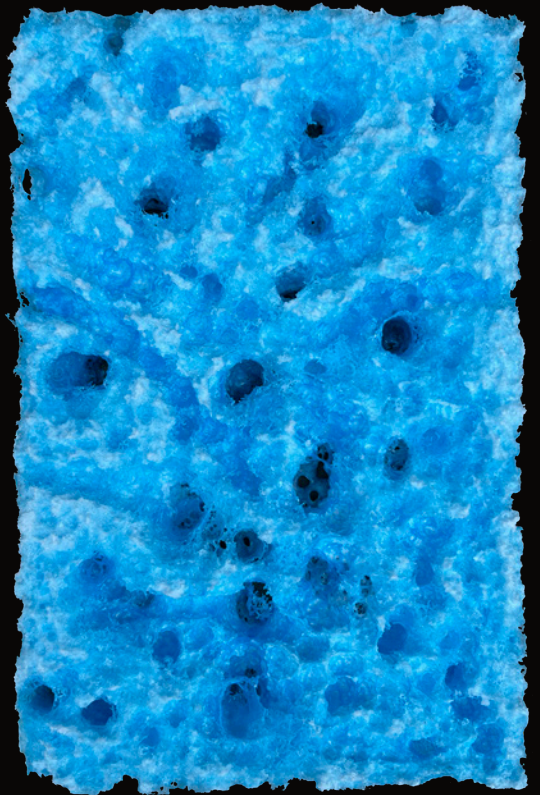
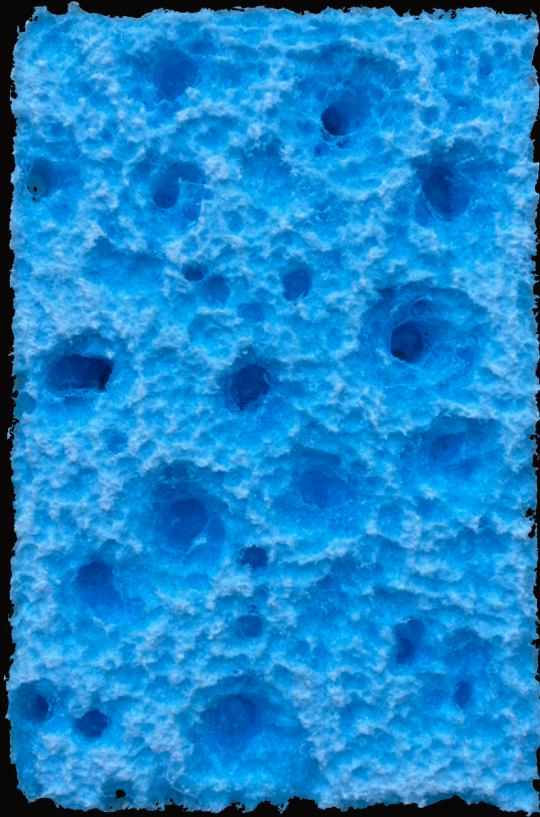
For my first iteration, I placed each layer of foam horizontally and selectively poured acetone on it to create the craters. As a result, depending on how much acetone and how fast or slow I would pour it, it would affect the way in which the material would react. When pouring small amounts of acetone at a slow rate, the material would become crisp and fragile, while when pouring in larger quantities at a faster rate, the material would rapidly condense and harden as the air particles would evaporate.

For my second iteration, I placed the foam vertically and let the acetone drip across the material. As the top part would start to harden, the acetone would keep sliding freely across it reaching the lower parts of the foam. Rather than affecting the top layer of the material to create a ripple effect on the surface, which was what I initially predicted, the acetone instead perforated the condensed material, moving through the existing pores and ultimately exaggerating them as a result.

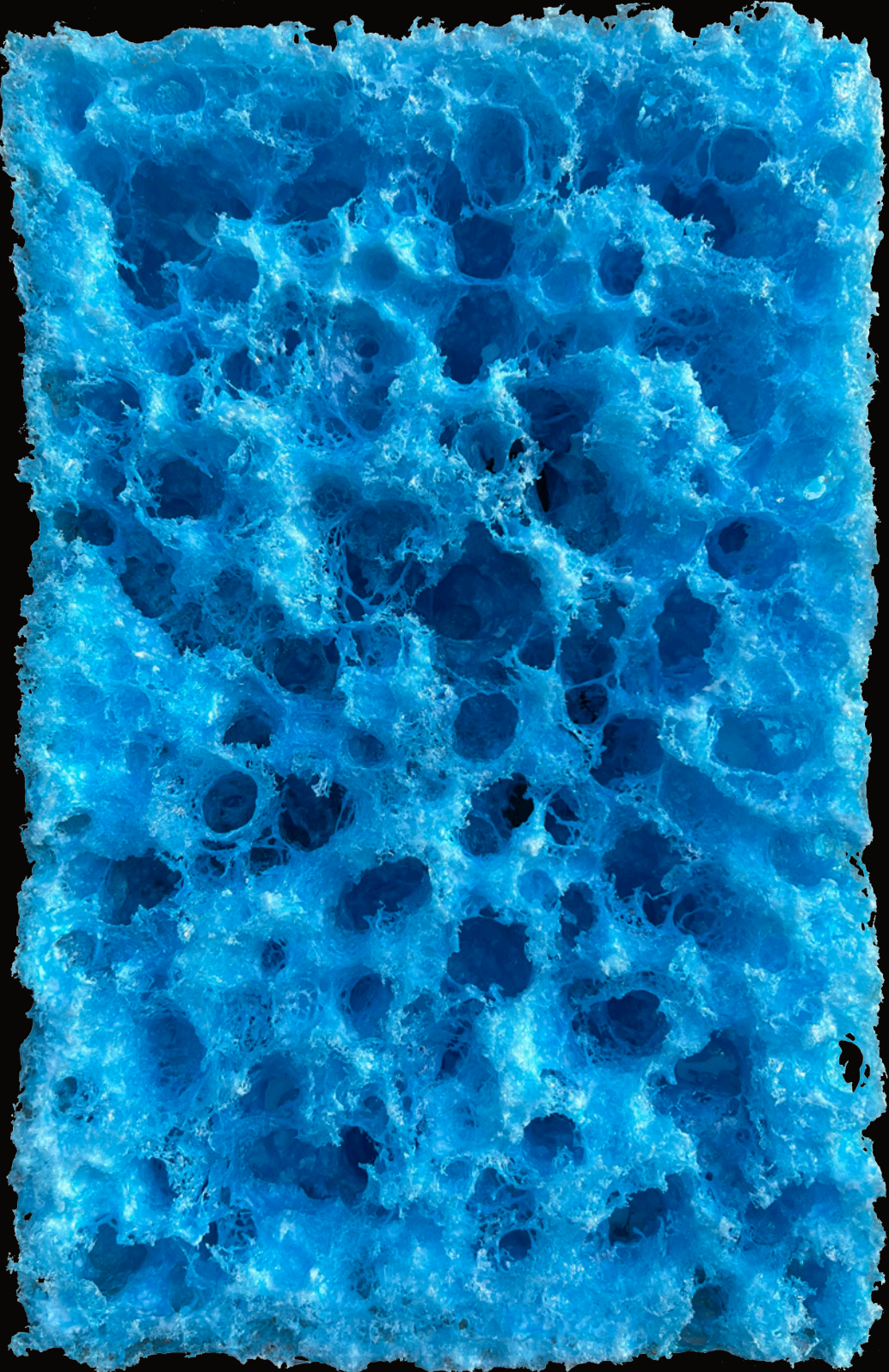
Once the chemical reactions were done, the artifacts kept decaying as one would move them around, manifesting the concept of "wearing out" in our environment at a human scale.

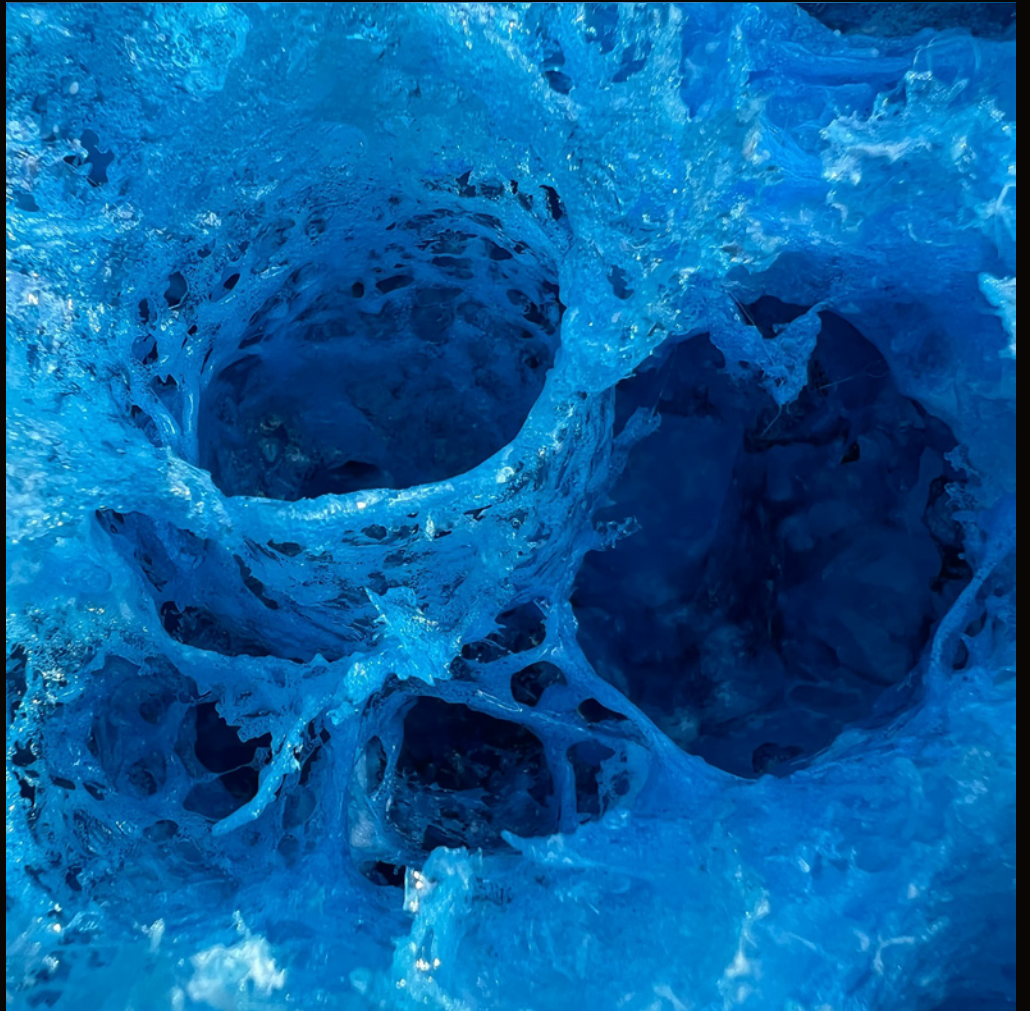
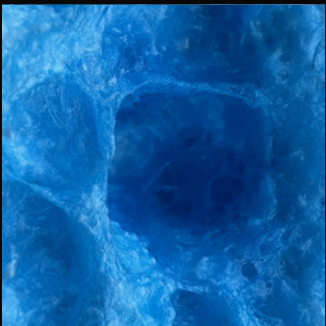
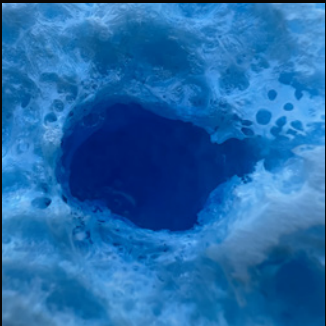
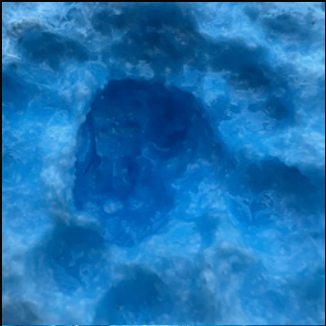
ITERATION 1



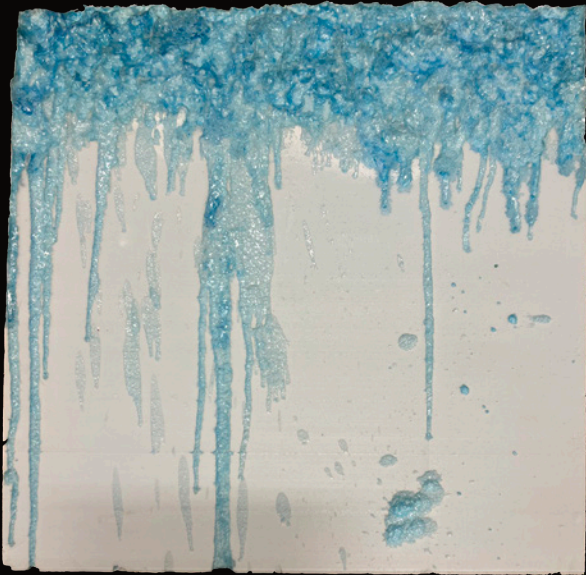
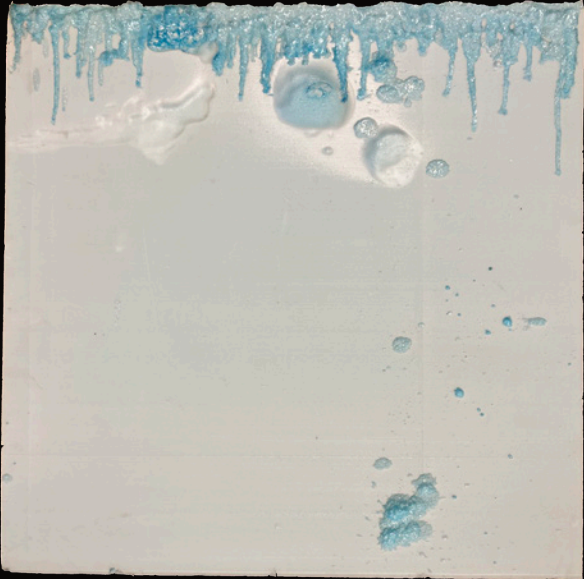


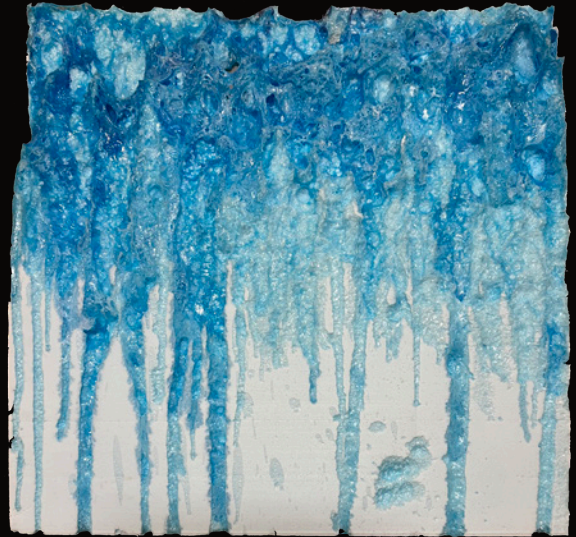
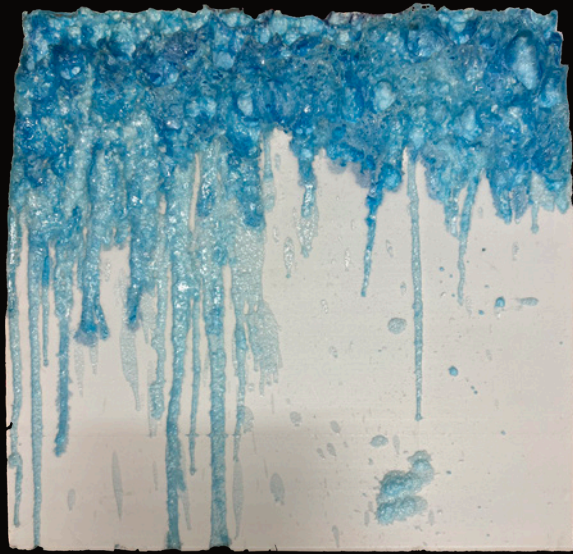
ITERATION 1





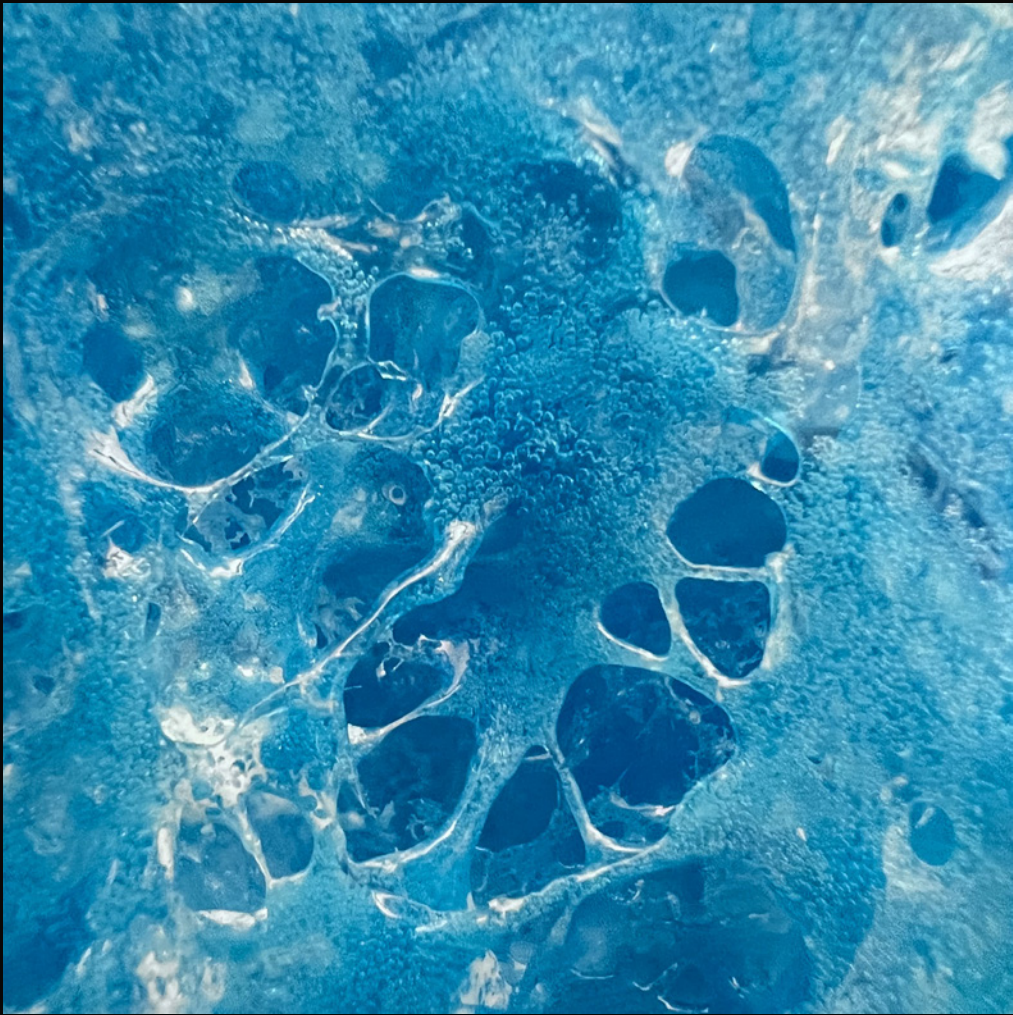
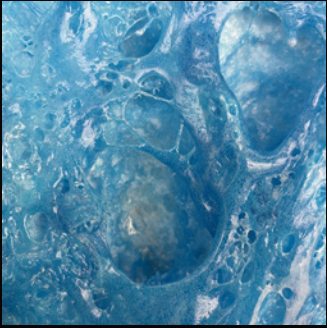
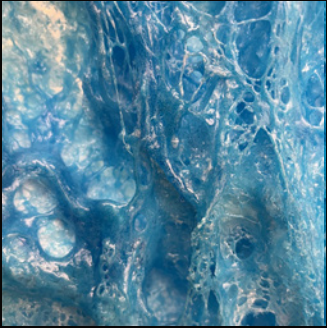
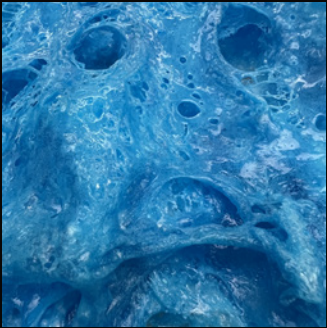
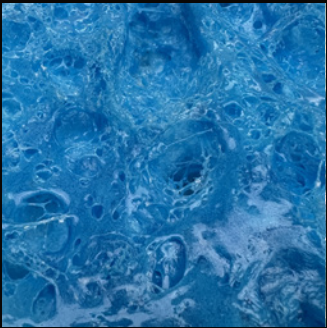
ITERATION 2





ITERATION 2





06 MELTED FOAM + PLASTER & ROCKITE

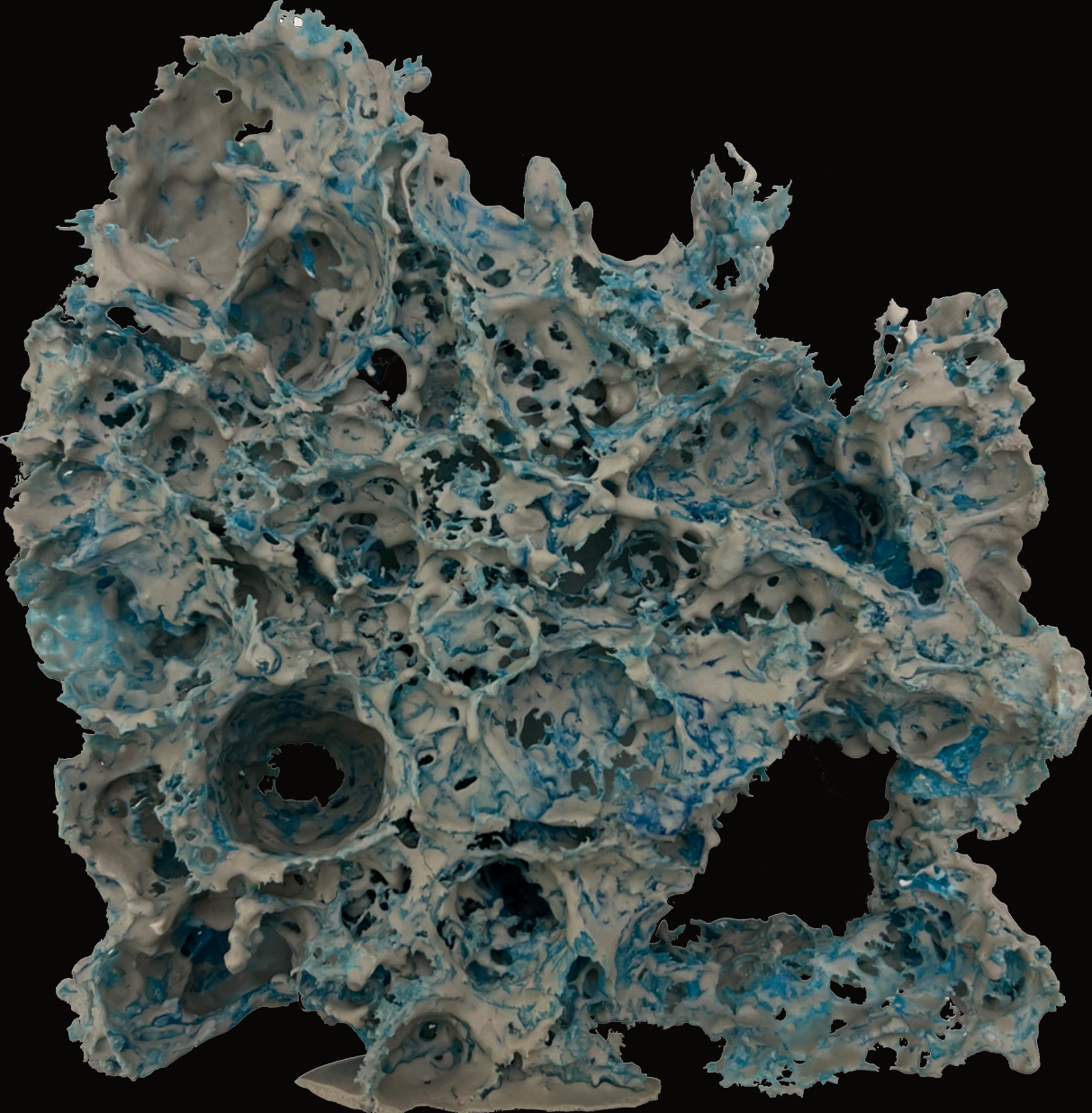
Coats of plaster have now “frozen” on time the previously melted artifacts, preventing these from deteriorating due to physical impacts. These are starting to go through an encapsulation process.

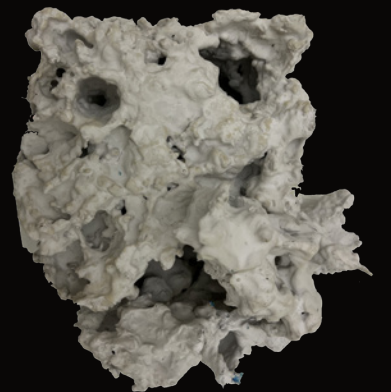
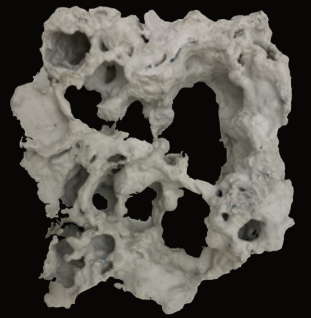
The original form of the melted blue foam models started to go away depending on how many layers of plaster I would add to the models, and how heavy the mixture would be.

At this stage, I was interested in the spatial conditions the models heavily coated with plaster could offer. I sliced some of these with a handsaw to see the sectional conditions of these, better understanding elements of depth, color, texture, and form. Spacious voids were created within the different sections, demonstrating the various levels of porosity and density the melted blue foam models offered.

Simultaneously, I noticed how the rusted coat of the handsaw transferred to the surface of the plaster. I was interested in the relationship that could be created between the artificially made and the natural, and what processes of deterioration could come along. With this in mind, I estimated how rust would expand across the surface over time. I also estimated how the models could start naturally decaying if these were to be left out in nature, estimating how moss could grow on them.

COATING WITH PLASTER & ROCKITE



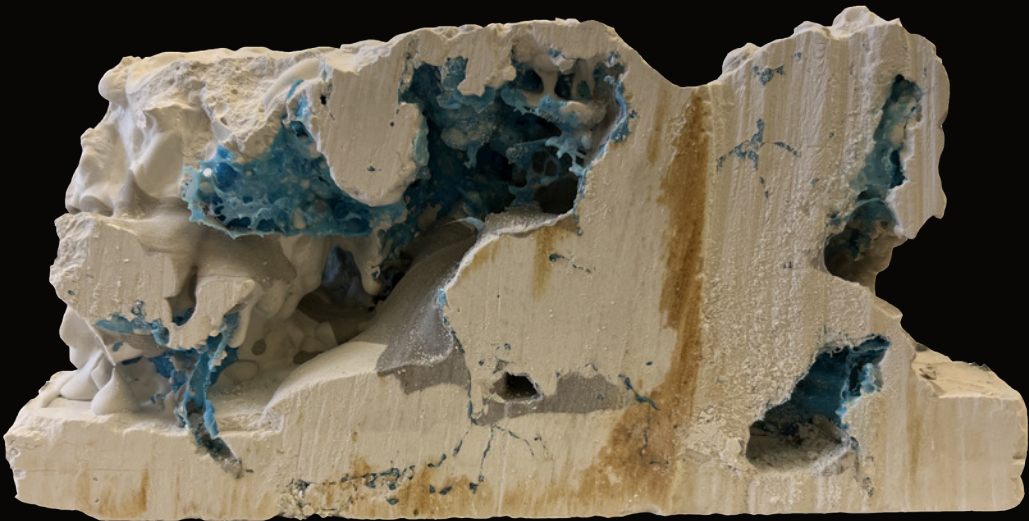
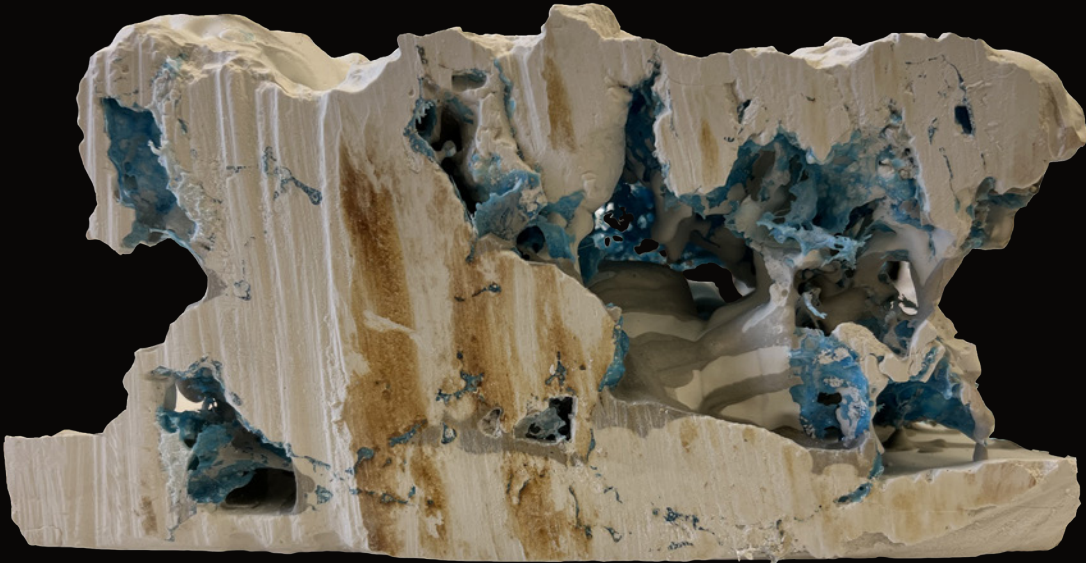


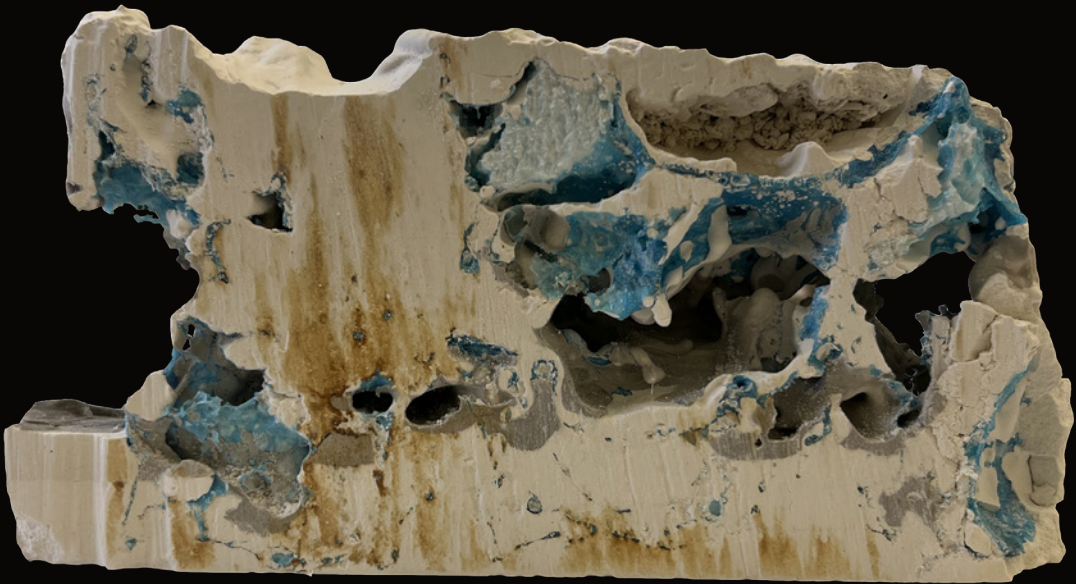
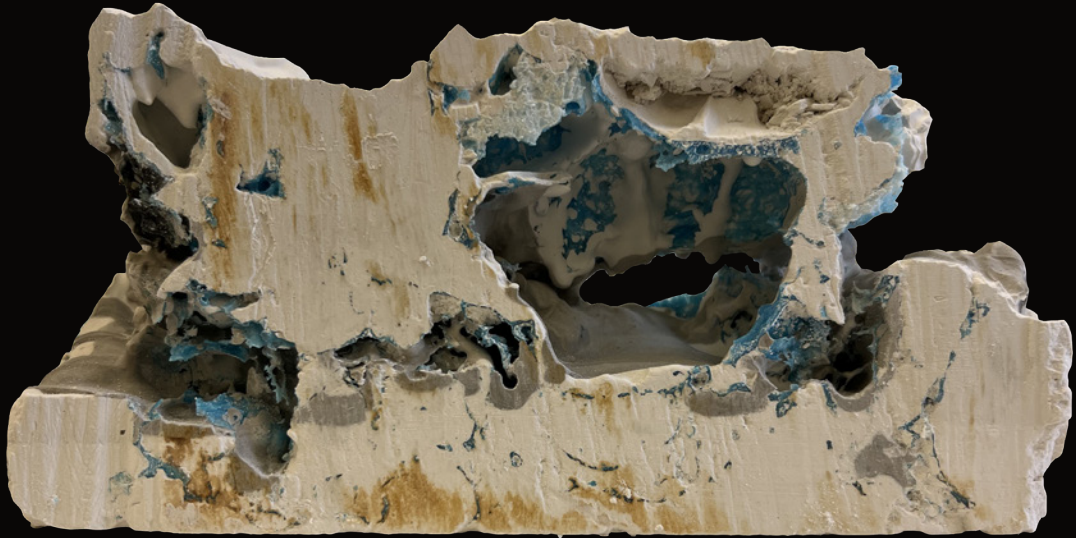
COATING WITH PLASTER & ROCKITE



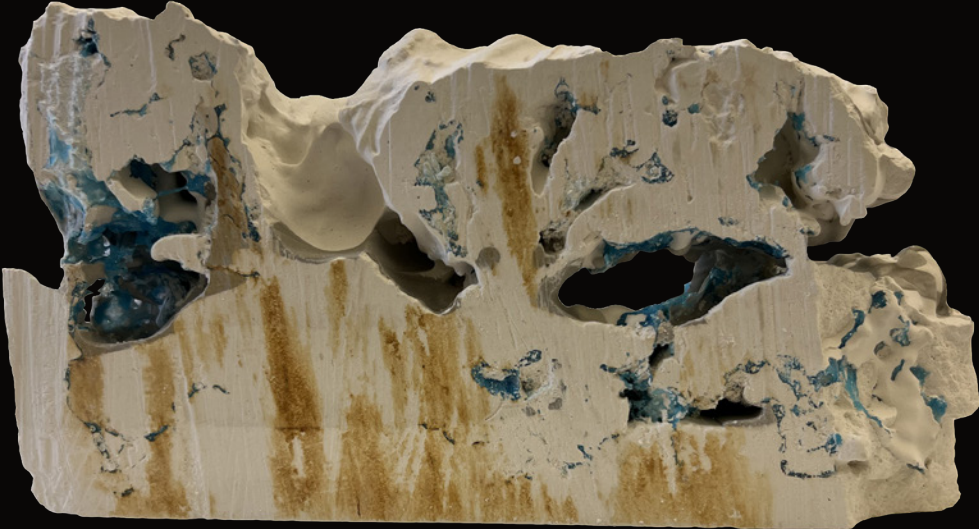
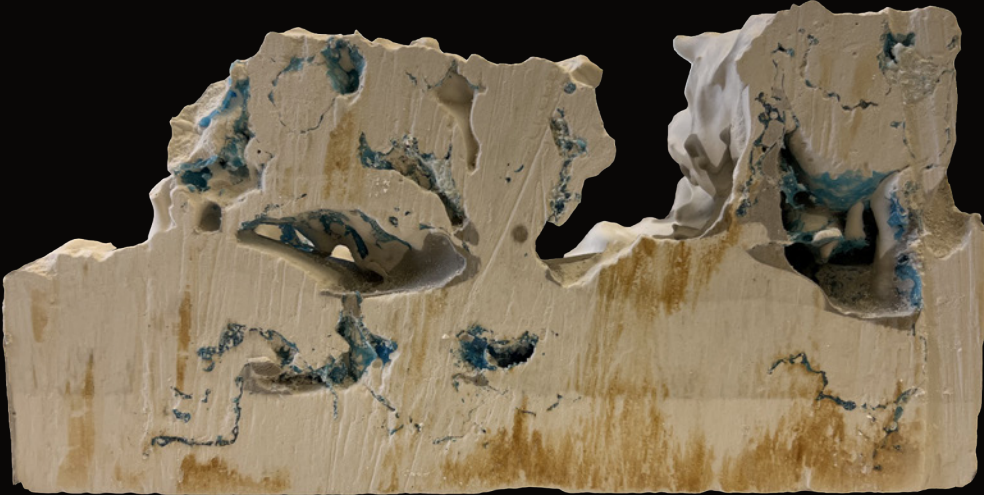


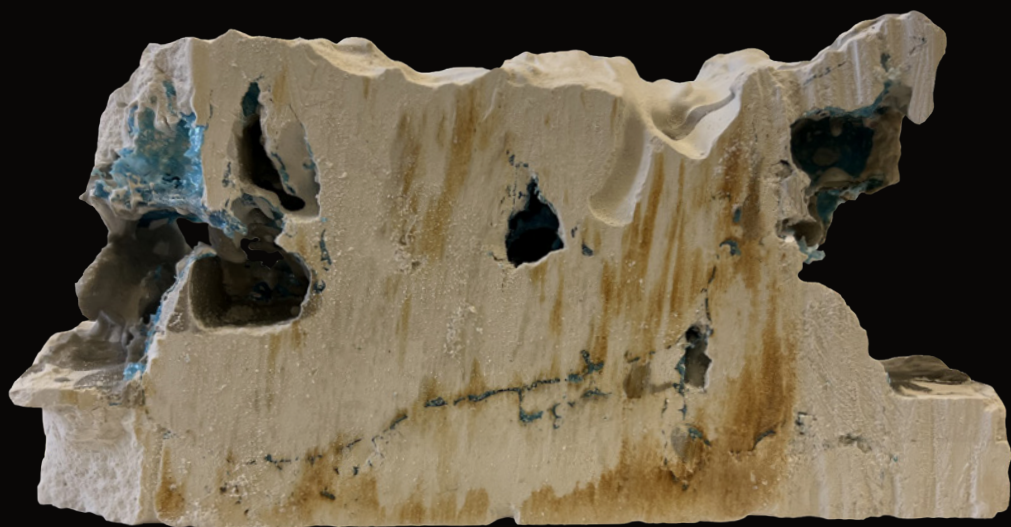
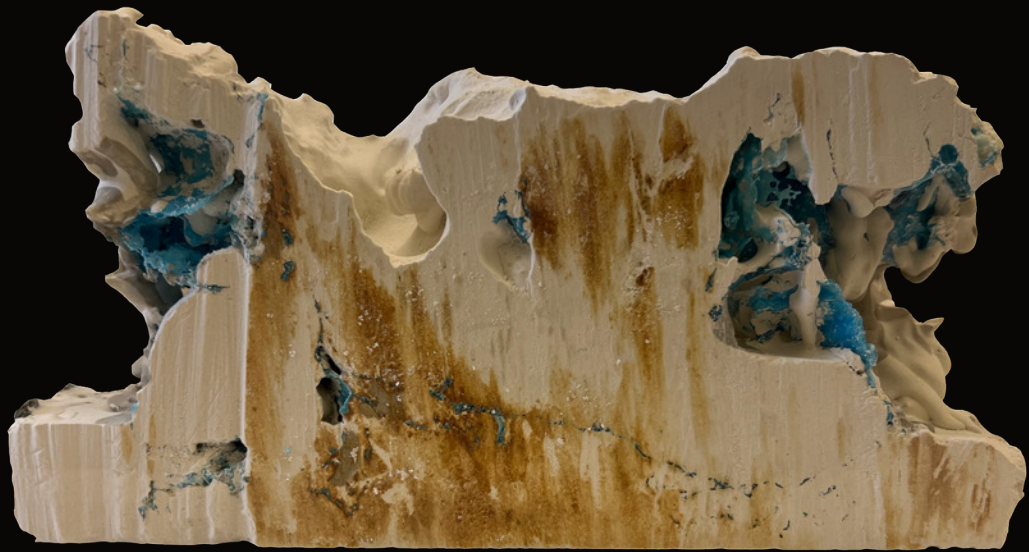
SLICING HEAVY COATED MODELS





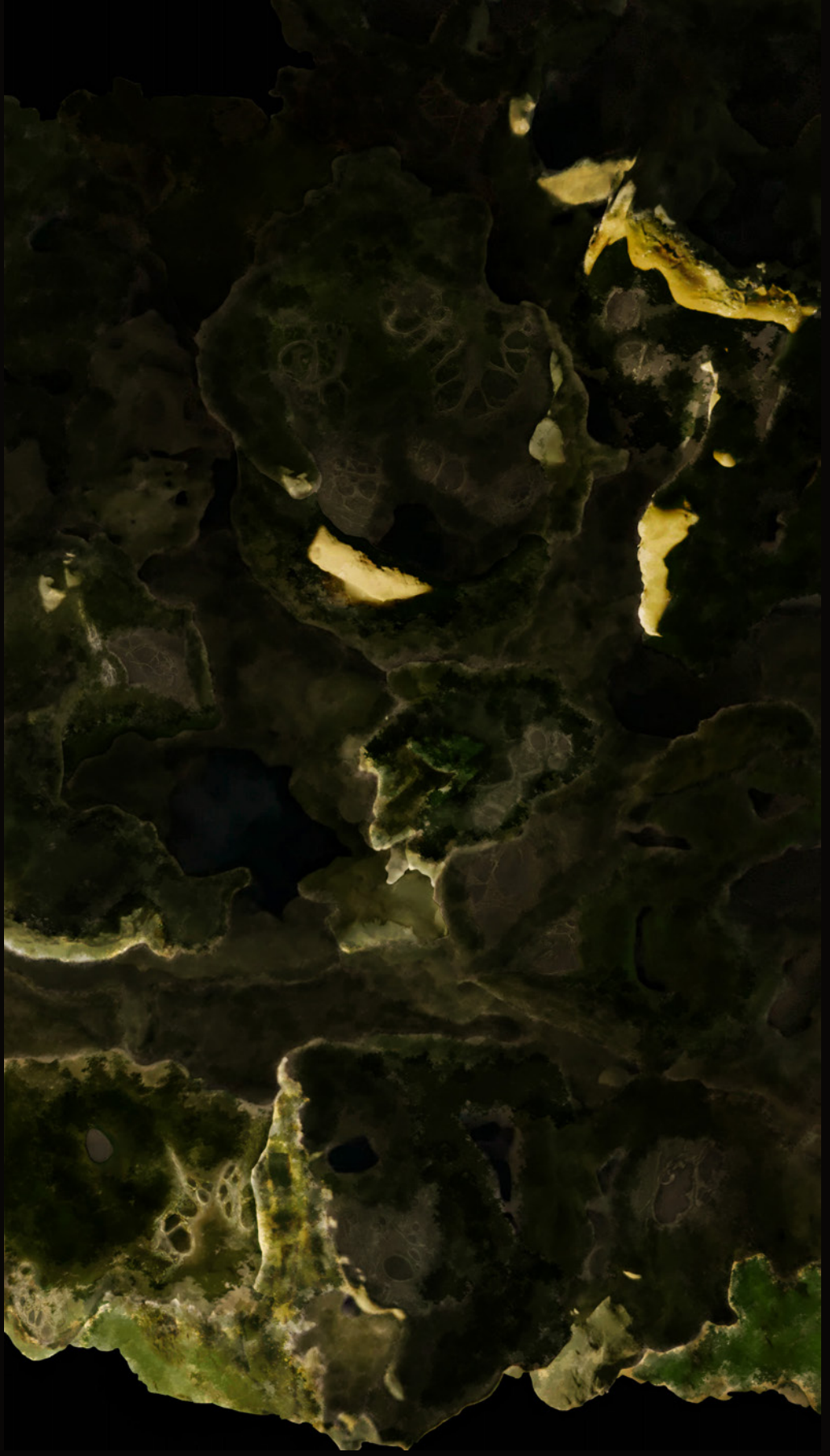
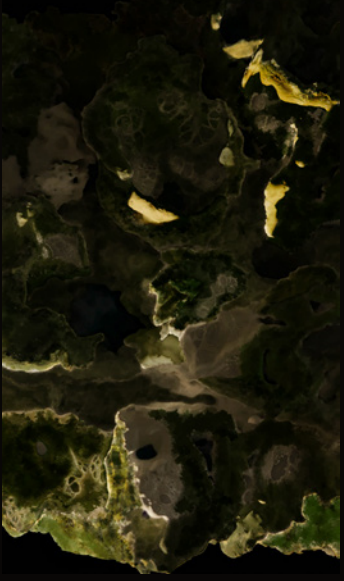
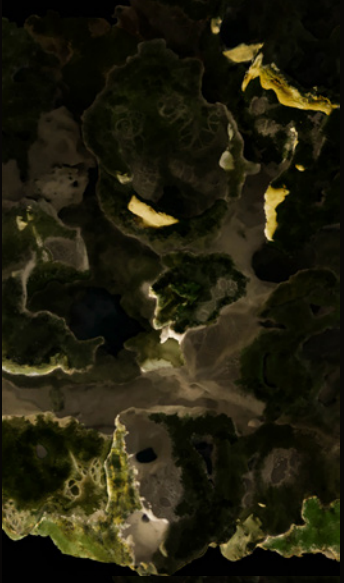
SLICING HEAVY COATED MODELS



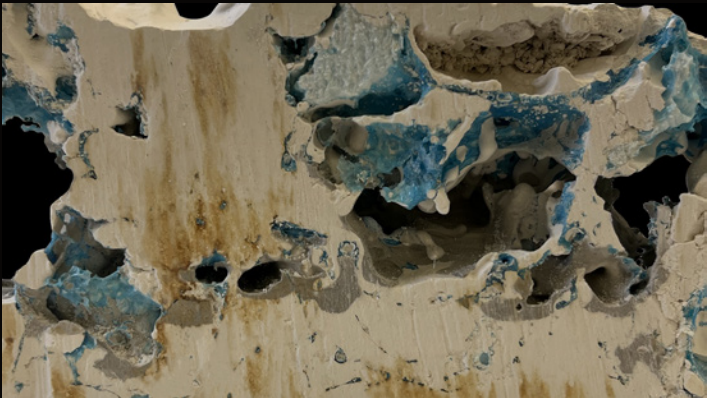
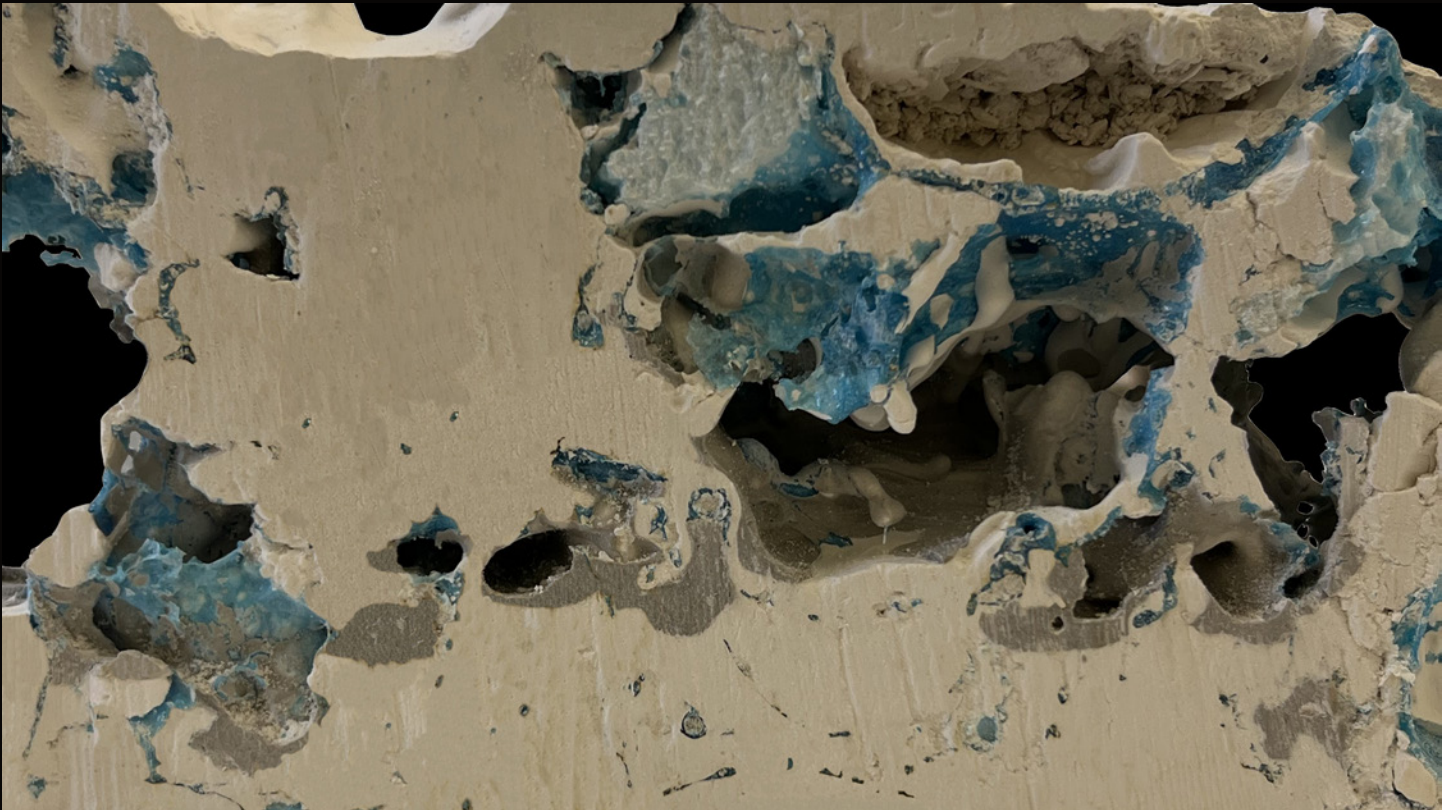


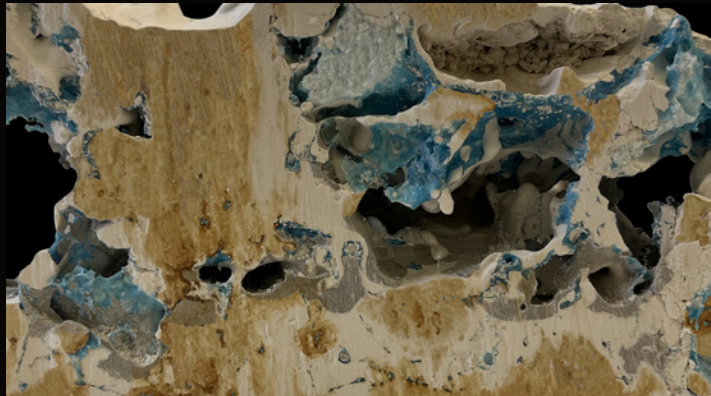
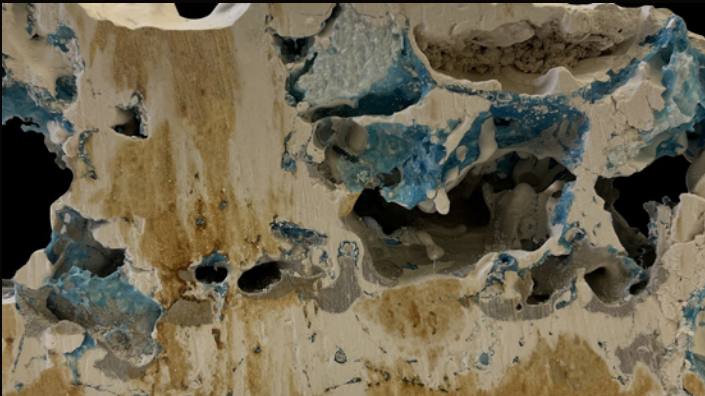
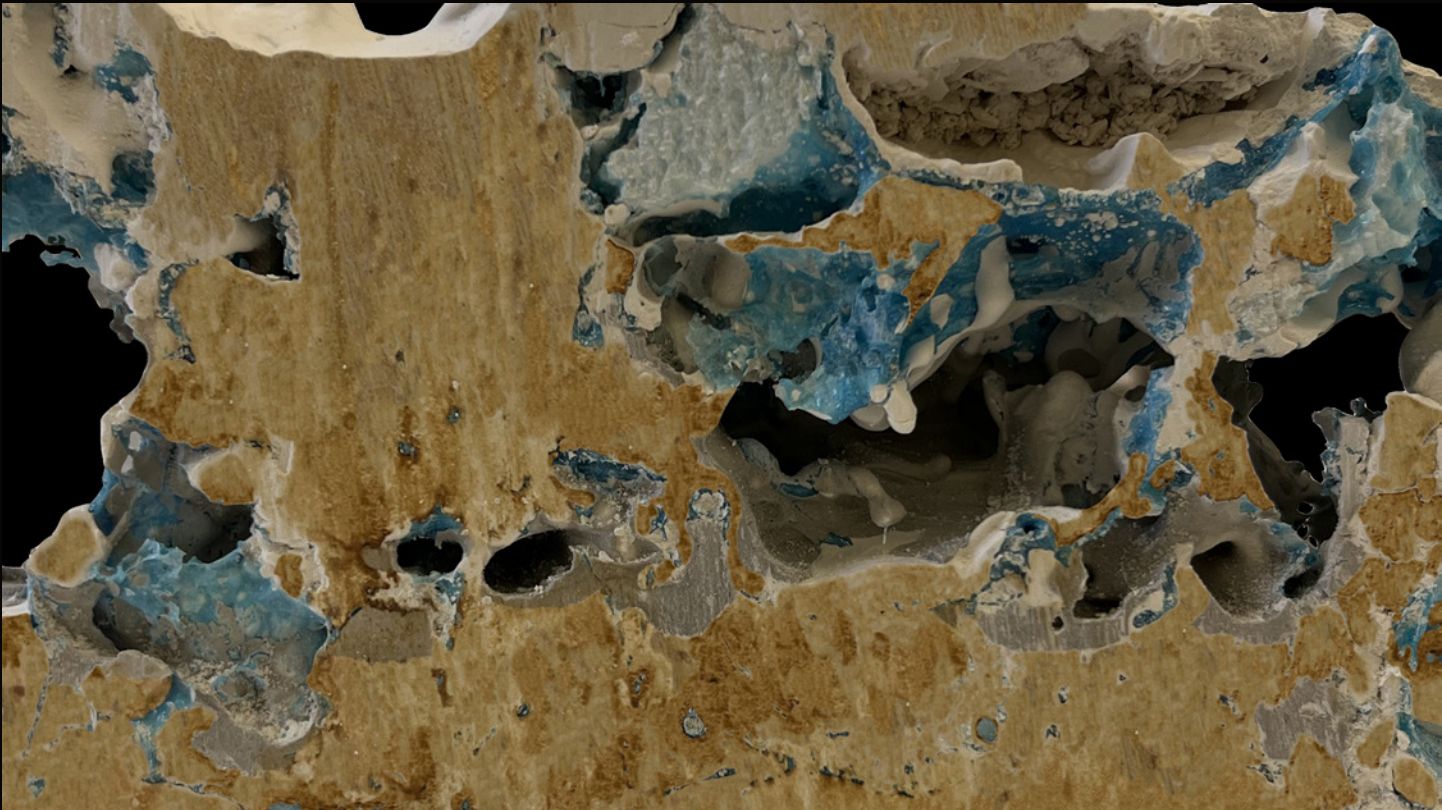
PREDICTION 1: MOSS ON SURFACE





PREDICTION 2: RUST ON SURFACE





07 LAYERING

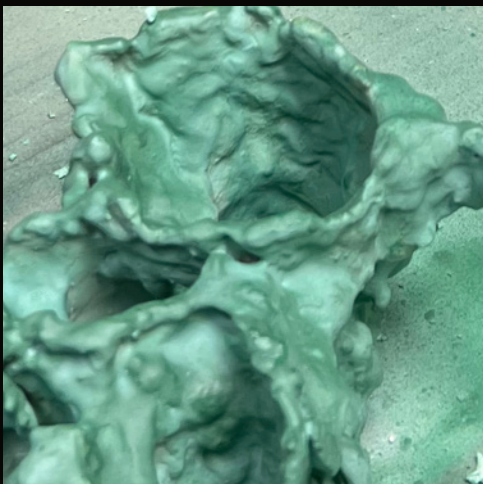
Time is registered through layers. These can communicate how the model was done through multiple steps, rather than being done all at once, representing the idea of progressively building up a massive block.

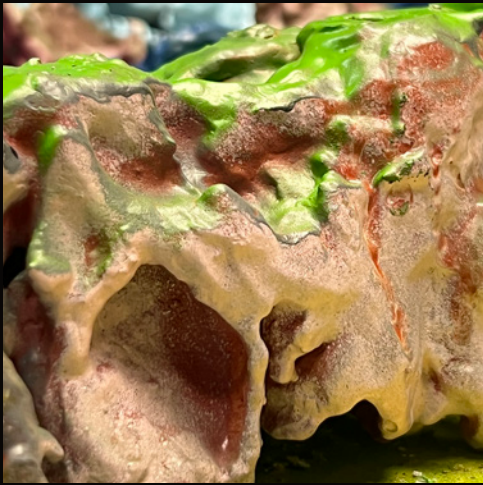
I was interested in the ideas of layering and how this could affect the conditions of what I was making. I took the plaster & Rockite coated models and coated them again with multiple layers of paint and then condensed these into a block made out of plaster and Rockite.

The results of the cuts were more intricate, and even more so when I was able to still melt some more of the foam, creating a different effect on the voids than the previous models. Also, I noticed that some of the layers are sometimes easy to see from a distance, like the difference between plaster, Rockite, or paint, but others require closer attention as the details are smaller, involving the multiple layers of paint. People's level of engagement with the artifacts determines how much information they can perceive.

The process of layering revealed how toxic matter could be encapsulated.

LAYERING WITH PAINT



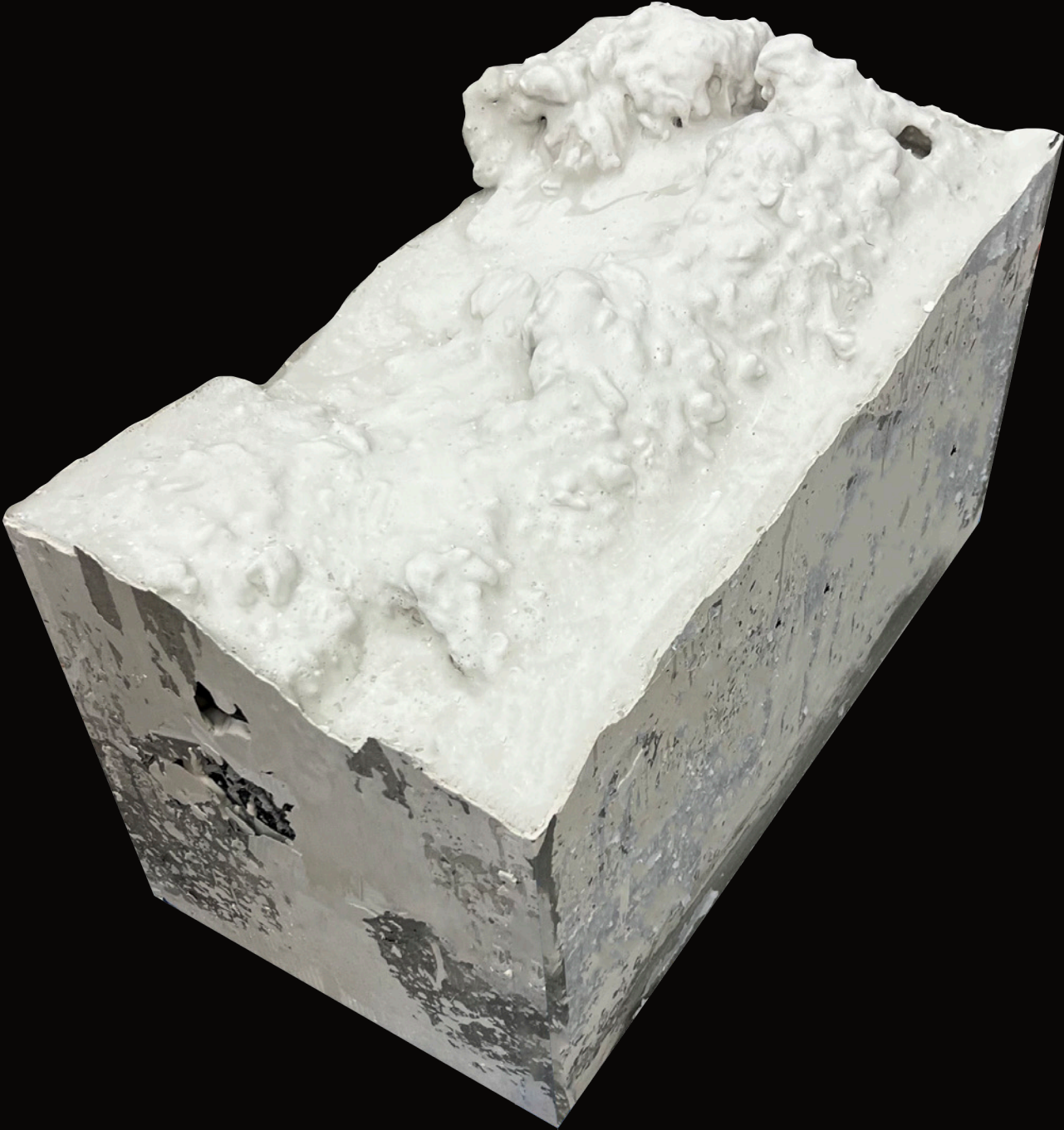


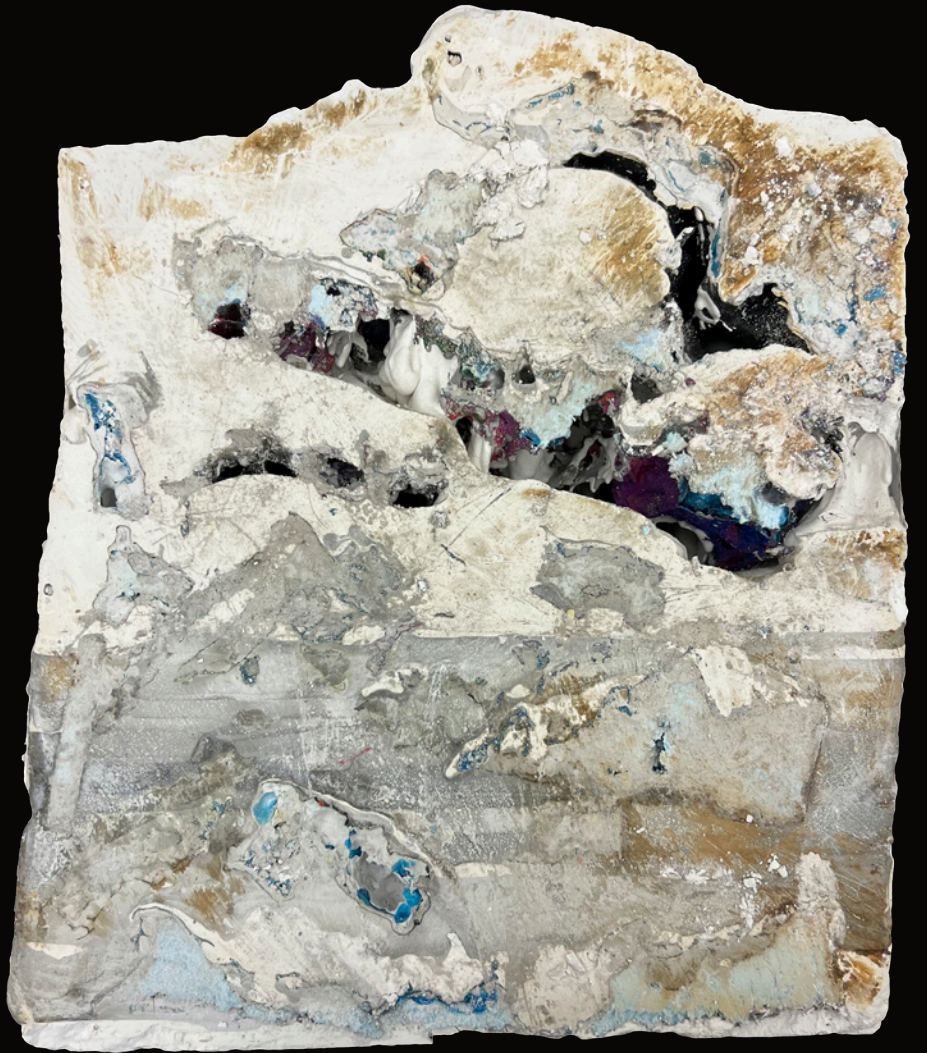
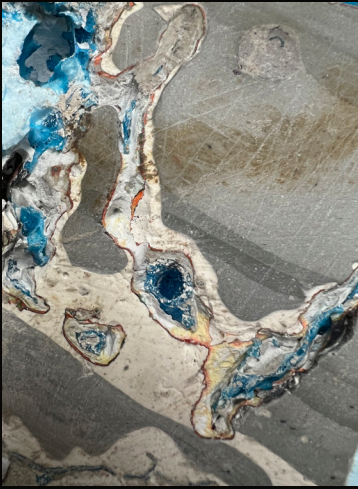
LAYERING WITH ROCKITE & PLASTER



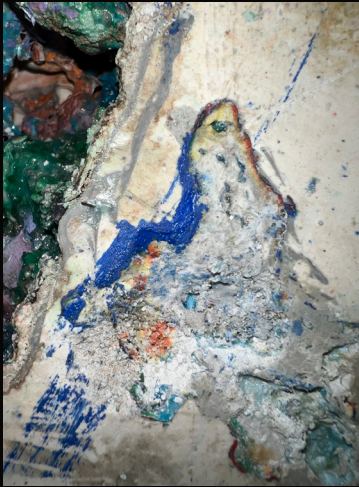
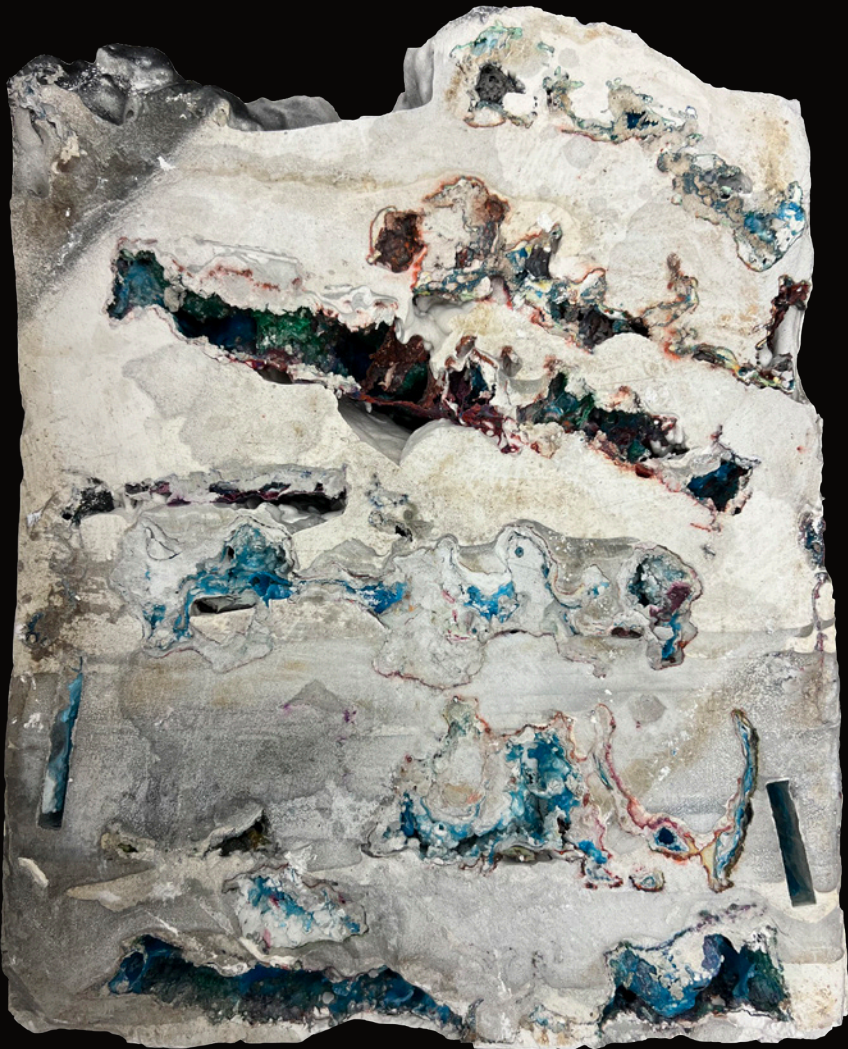


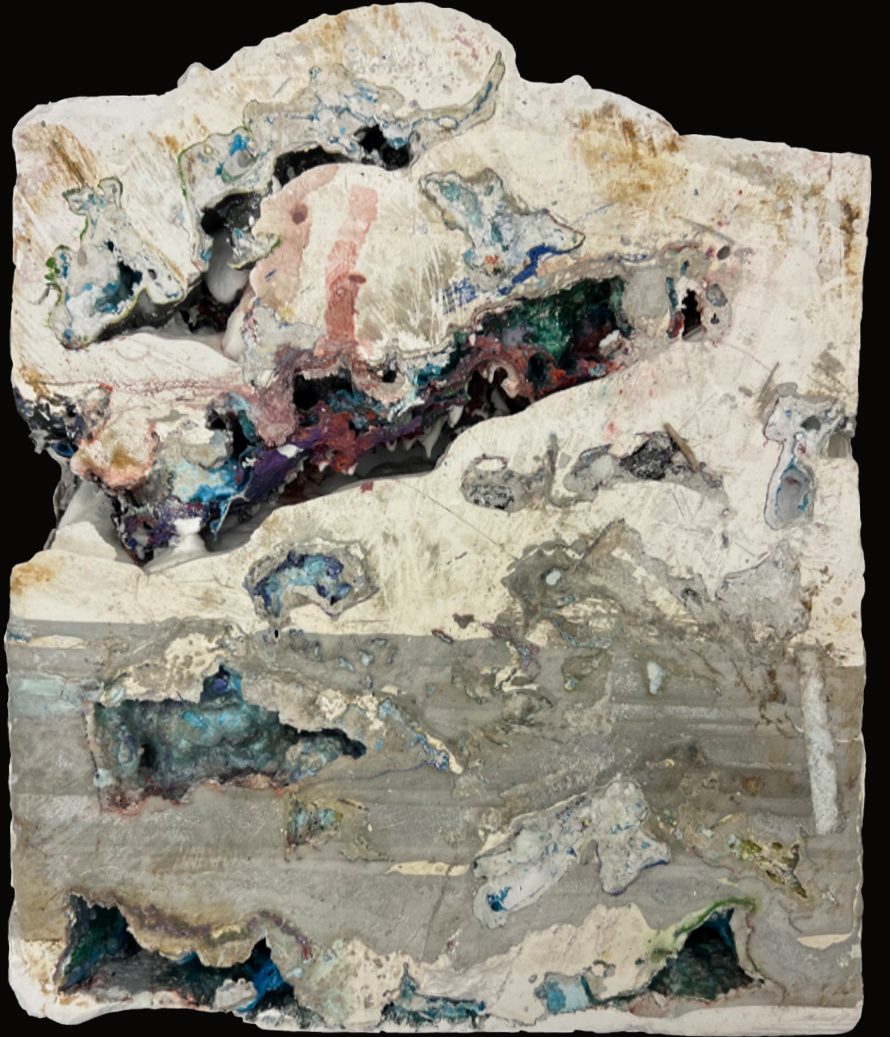
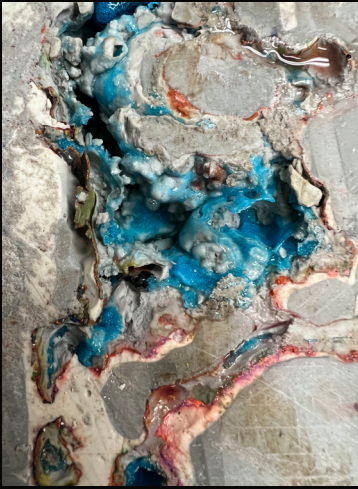
SLICING LAYERED MODEL





SLICING LAYERED MODEL





08 TIME + WEATHERING

Our current built environment is filled with materials that undergo constant transformations.

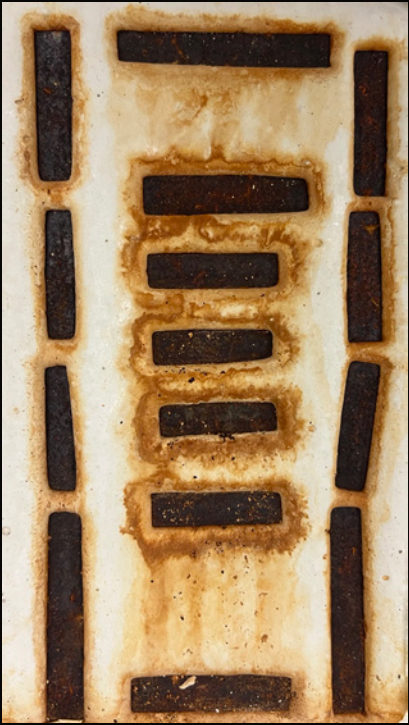
I developed a series of study models to understand not only how the materials themselves would change, but also how these would affect the surface of what they are being casted on. To do these, I used blue foam, wood, steel and copper. The blue foam model was able to capture the materials form as this was later melted, while residues of it were left behind. The wood model, which was burnt, and the steel and copper models not only demonstrated the transformations of the materials themselves, but also how they left residues on the plaster without altering their form.

The first series of cubes estimate what the effects of constant flooding would look like on a material. The humidity starts darkening it, later resulting in the growth of moss from the particles carried through the water and making the material weaker until it breaks.

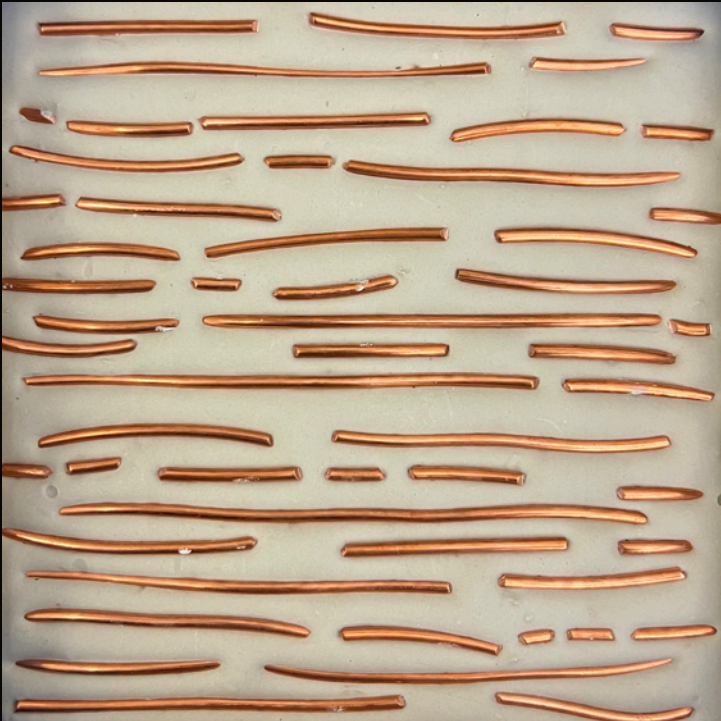
The second series estimate the effects of nearby fires, and how creosote starts taking over and darkening the material. Normally, this is seen as chaotic, dirty, messy, and disruptive, but what if instead one pushes for the use of these materials and their ability to change, and allow for their natural transformation to happen to inform time and weathering through space?

STEEL

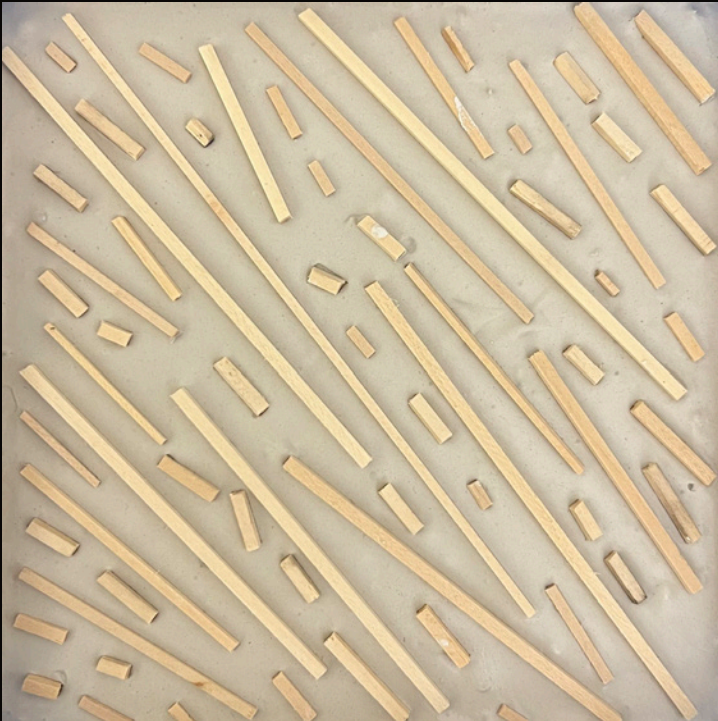




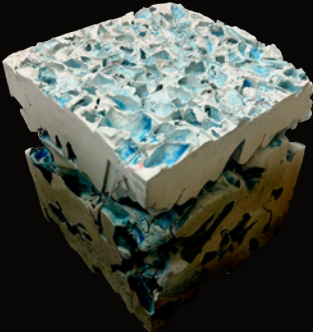
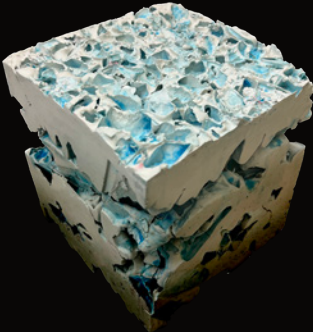
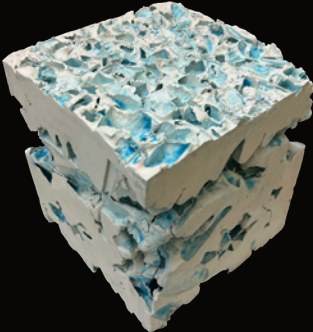
COPPER

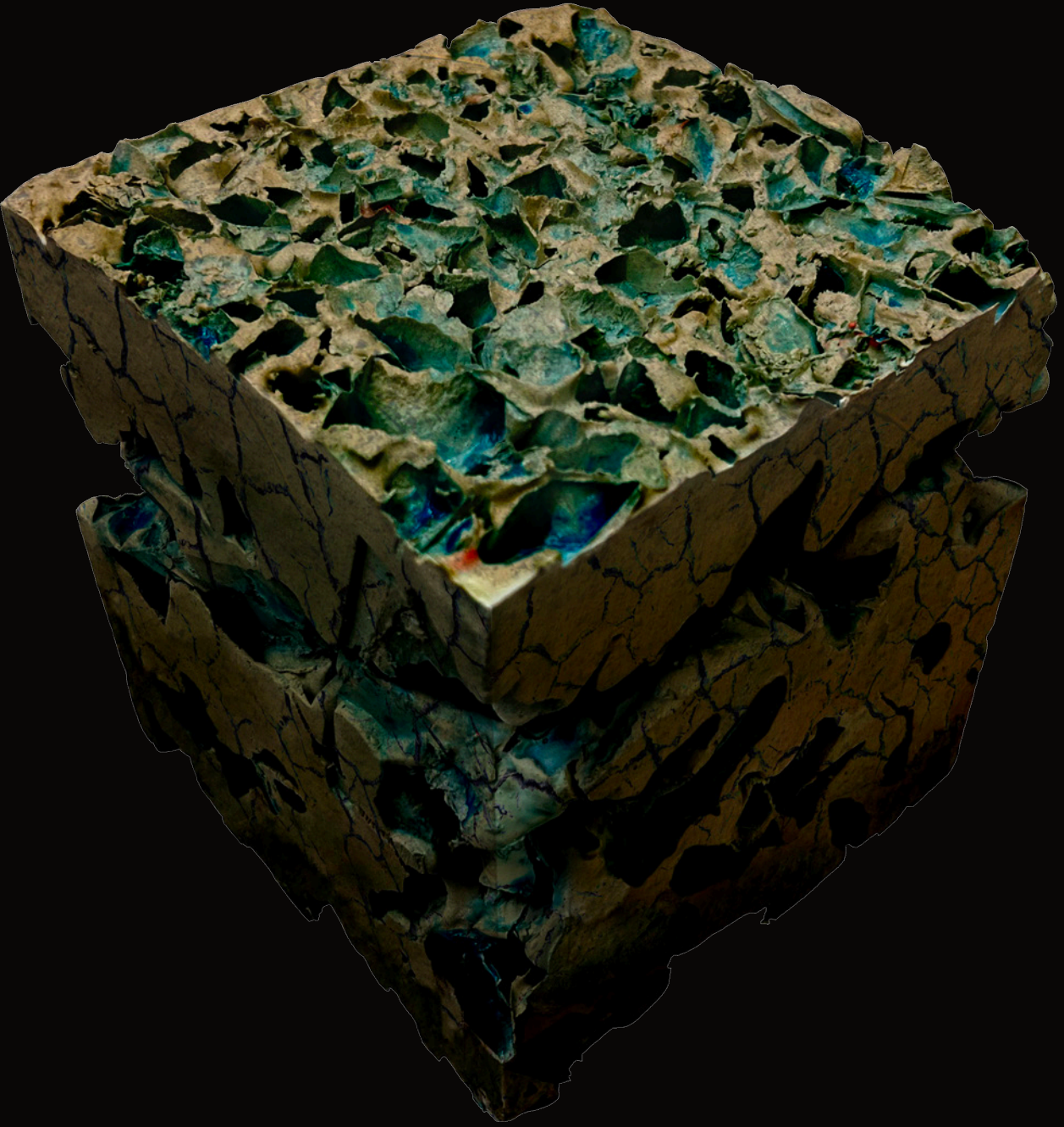


WOOD



PREDICTION 1: DECAY DUE TO FLOODING





PREDICTION 2: DECAY DUE TO NEARBY FIRE





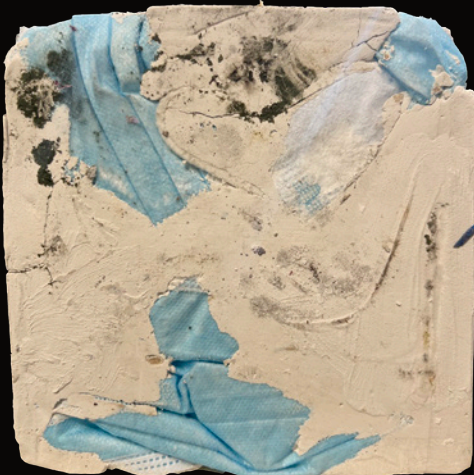
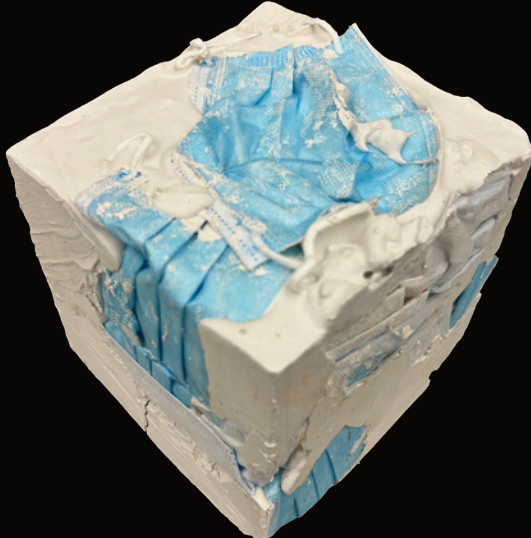
09 PART II

The daily average amount of trash from the 5 boroughs, including residential, institutional, commercial, construction and demolition, and biosolids waste can cover the entire area of Central Park in just one day with a height of 0.83 inches while estimating that there are 500 pounds of compacted trash per cubic yard.

On average, NYC produces more than 14 million tons of waste annually, or about 25 thousand tons per day, which gets transported to landfills, recycling centers, energy-to-waste plants, and compost facilities located outside the city and the state.

As cities grow, waste production grows as well. However, those in charge fail to address the environmental challenges that outturn as a byproduct. Rather than spending the time, money, and effort to create circular models that reduce the amount of waste, the city instead pushes for linear models in which objects consumed end in automatic disposal. Our society has normalized the act of throwing things away, as these are magically gone when waste trucks come to get them. This method works to keep waste away from the city by transporting it to a remote location, but it fails to consider the long-term effects that are inherent in it. The current management and disposal process of waste pollutes our environment. Toxic and hazardous materials are irresponsibly dumped into landscapes, destroying wildlife and ecosystems. It also results in marginalized communities' human rights being violated as they suffer the consequences of the waste's harmful environmental impacts. Waste keeps being physically and chemically transformed, invading our water, our earth, our air, and even our bodies. As waste disposal management is run by a monopoly, there is a lack of incentive to improve the current methods that continue to devastate our environment. The monopoly also allows them to have total control of the cost of this process, where profit is their main priority. Taxation of residents includes fees related to clean-up, transportation, and disposal of waste, and these prices will only continue to get higher. This crisis goes beyond the political, environmental, and economic concerns. People must be woken into the reality that everyone chooses to ignore.

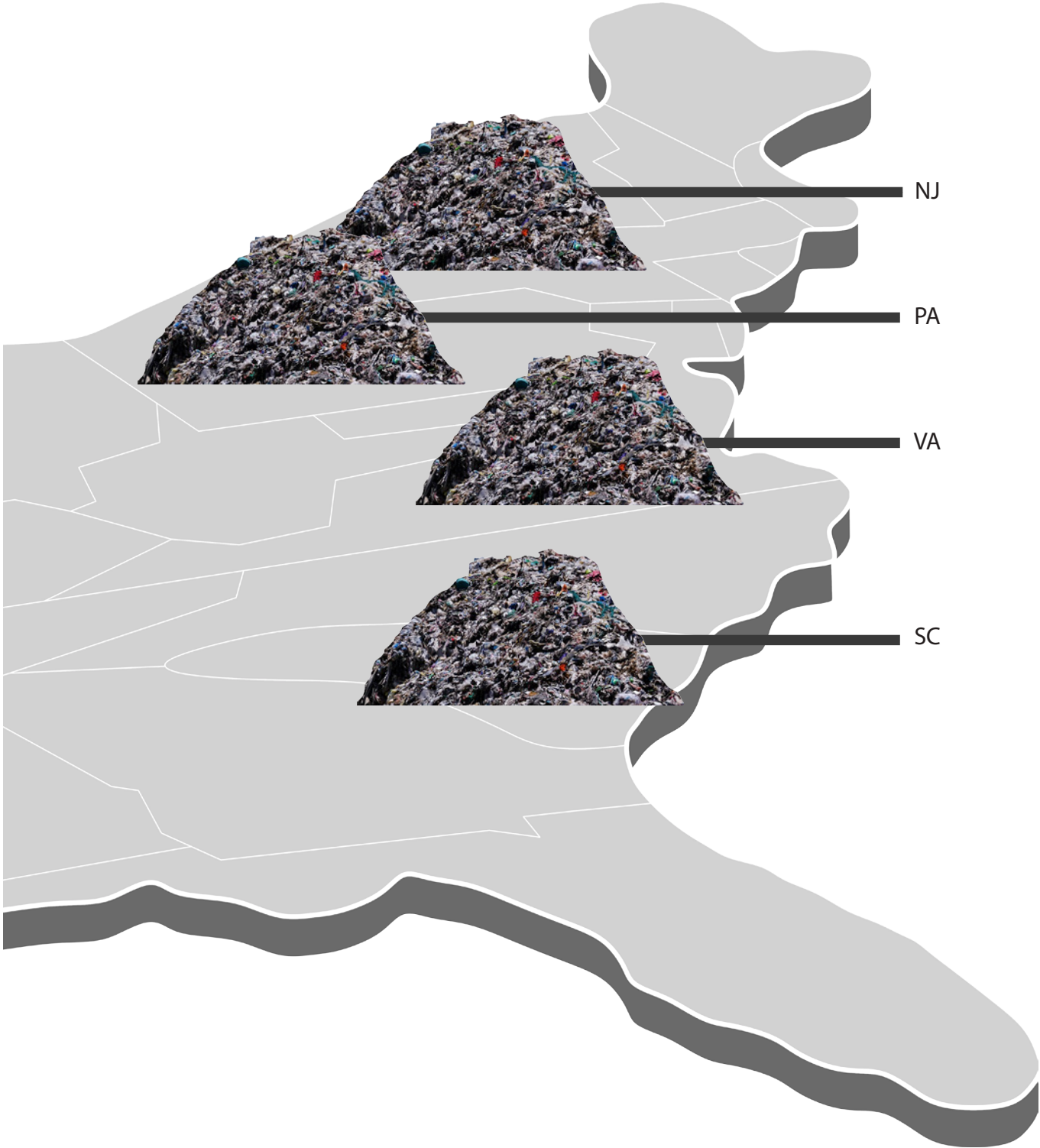
ENCAPSULATED WASTE



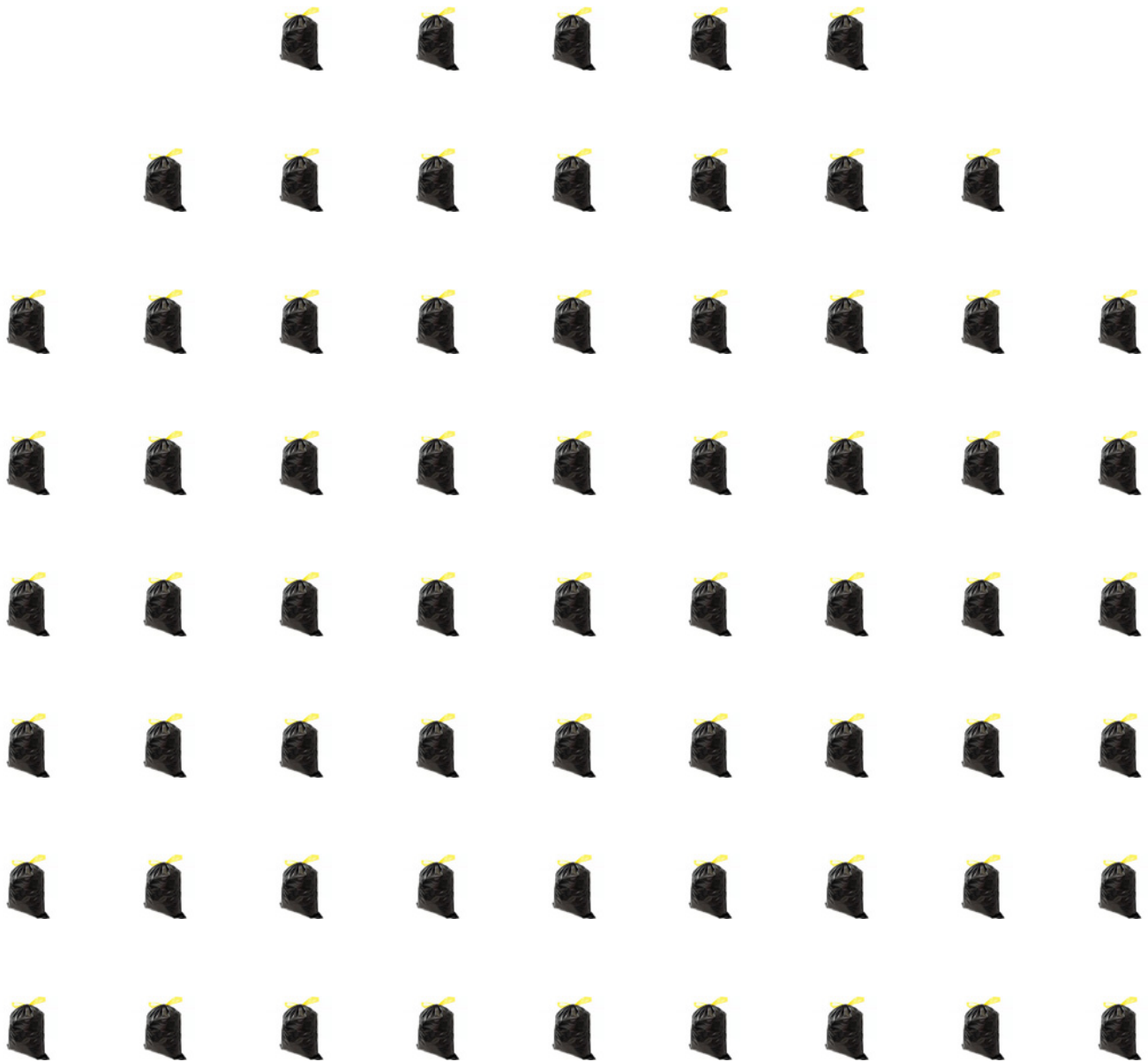
Deterioration Over Time



NYC'S LANDFILLS



TRASH CONSUMED PER YEAR PER PERSON



NON-RECYCLABLE WASTE

PLASTIC WASTE

Polyvinyl Chloride



Polystyrene



Other



E-WASTE

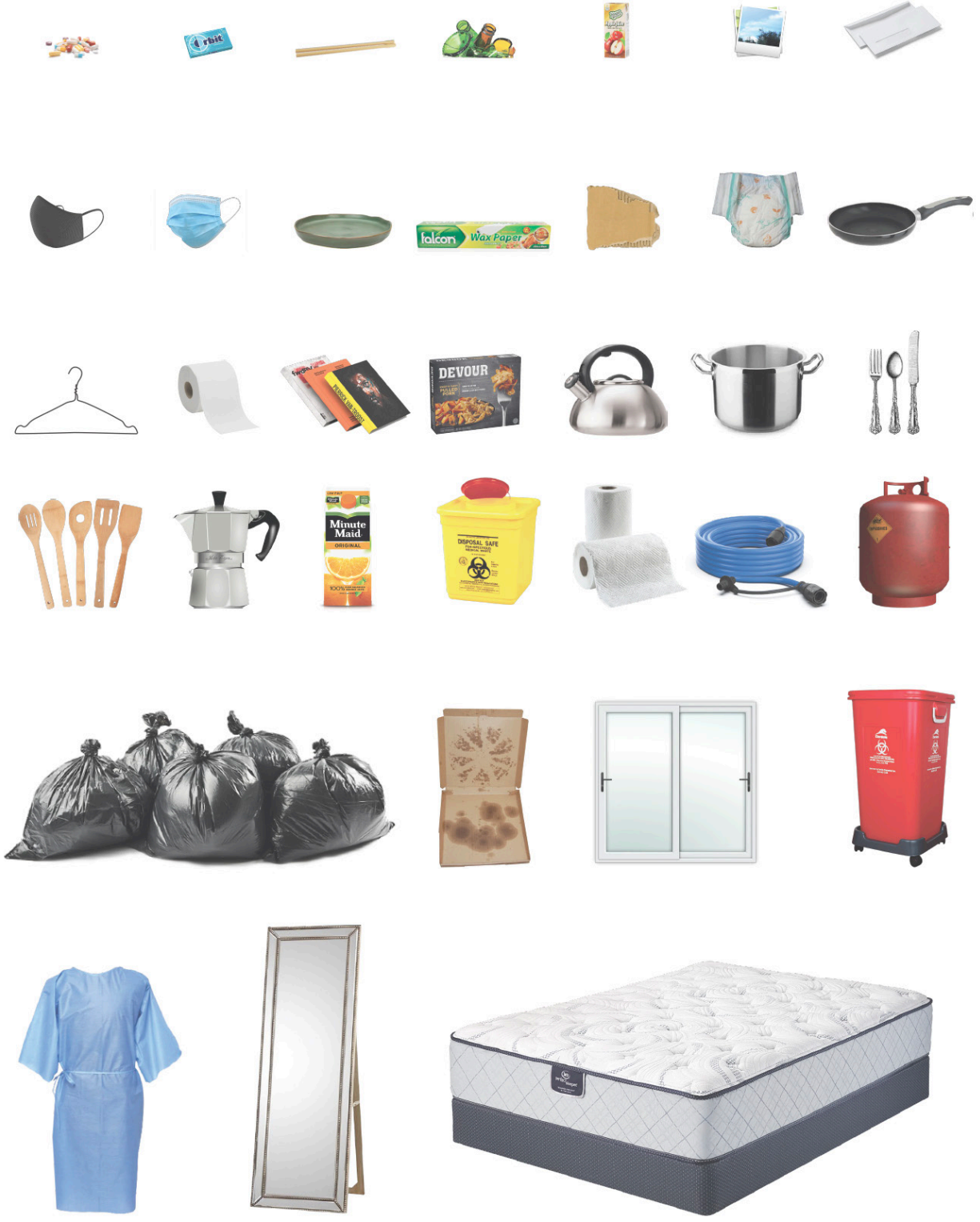


NON-RECYCLABLE WASTE

TOXIC WASTE

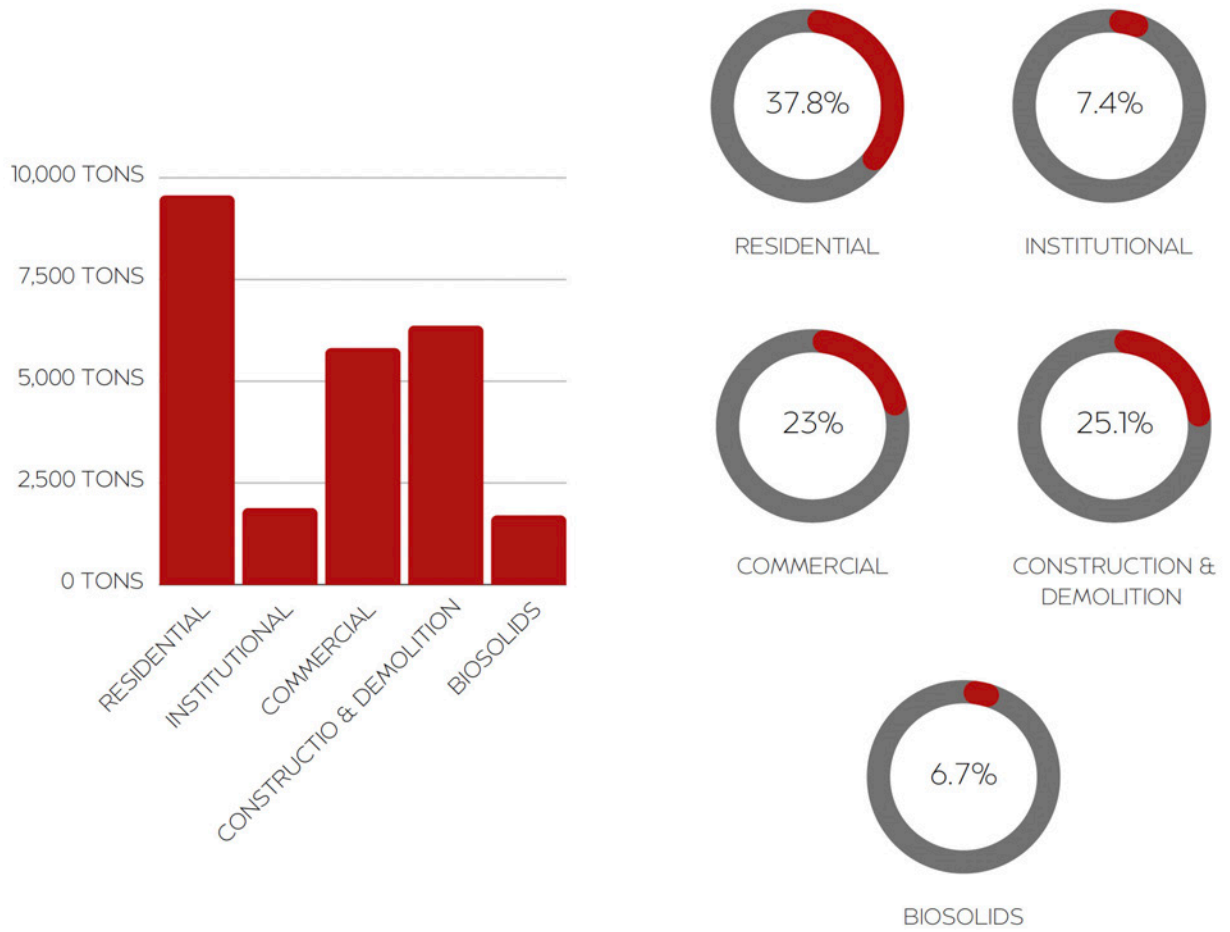


NON-RECYCLABLE WASTE



YEARLY AVERAGE WASTE IN NYC

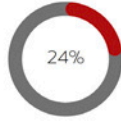
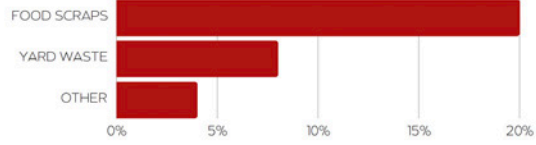
TONS OF WASTE PRODUCED PER DAY IN NYC:



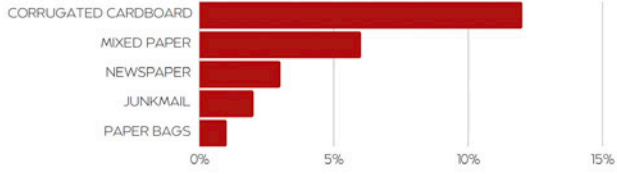
RESIDENTIAL WASTE



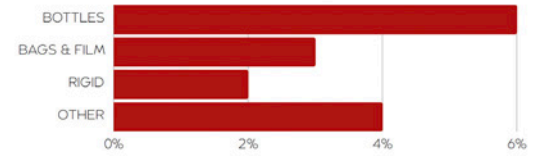
ORGANIC



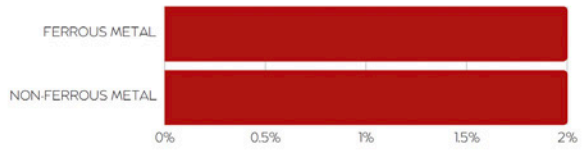
PAPER & CARDBOARD



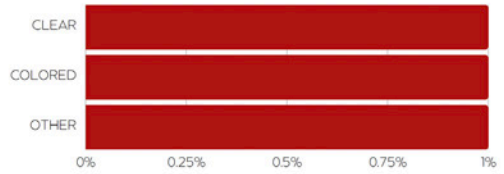
PLASTICS



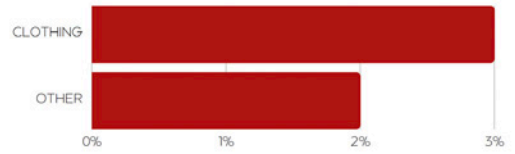
METAL



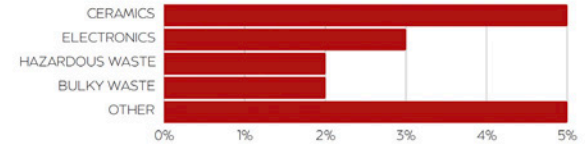
GLASS



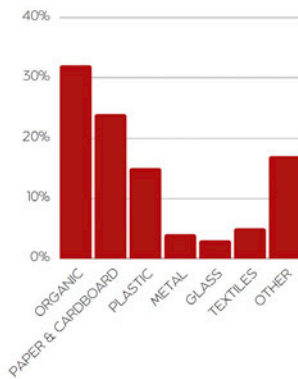
TEXTILES



OTHER

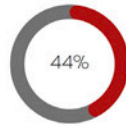


RESIDENTIAL



YEARLY AVERAGE WASTE IN NYC

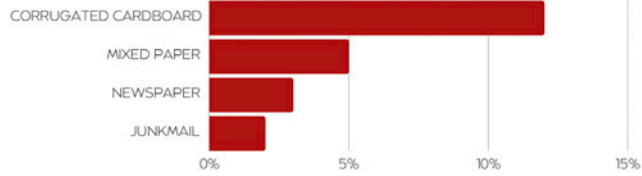
INSTITUTIONAL WASTE



ORGANIC



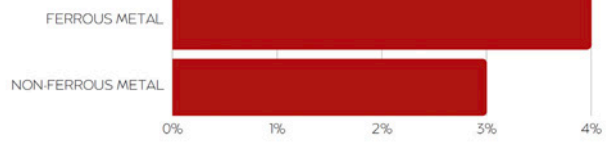
PAPER & CARDBOARD



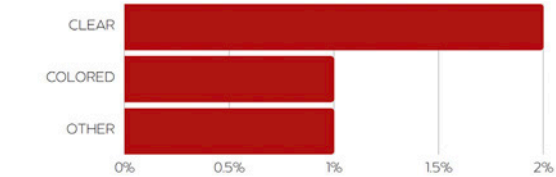
PLASTIC



METAL



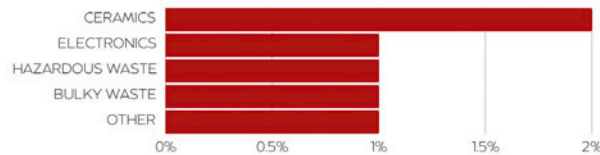
GLASS



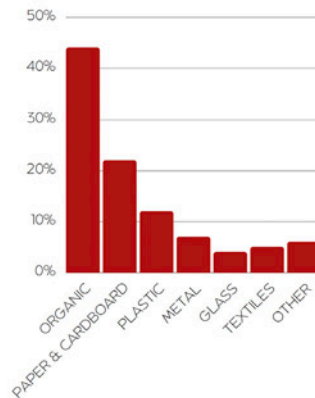
TEXTILES



OTHER



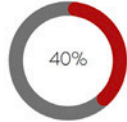
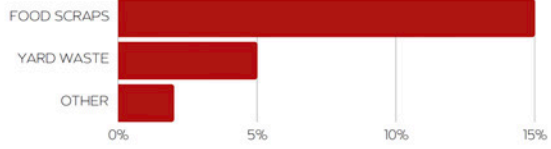
INSTITUTIONAL



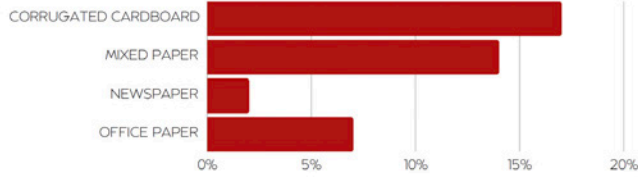
COMMERCIAL WASTE



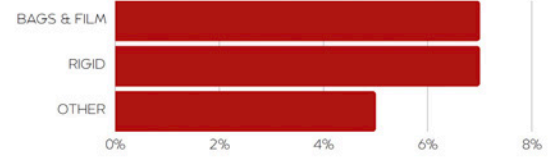
ORGANIC



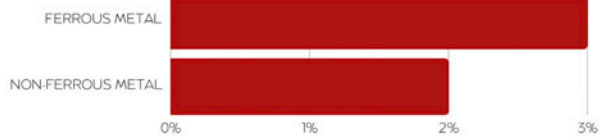
PAPER & CARDBOARD



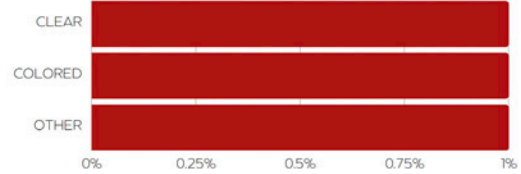
PLASTIC



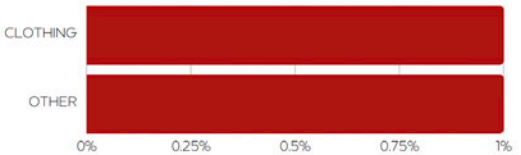
METAL



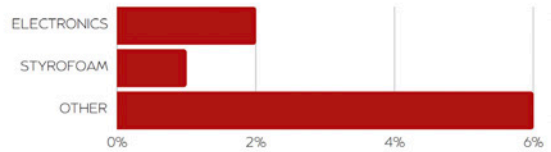
GLASS



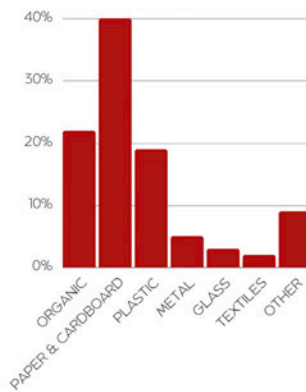
TEXTILES



OTHER

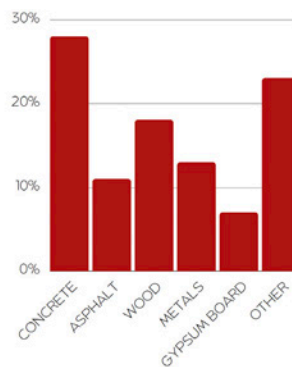
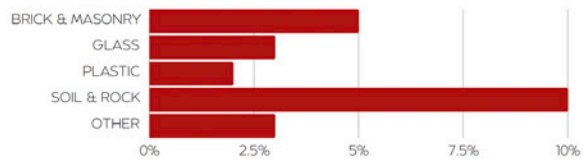
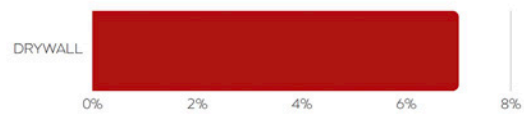
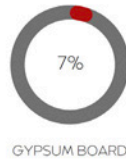
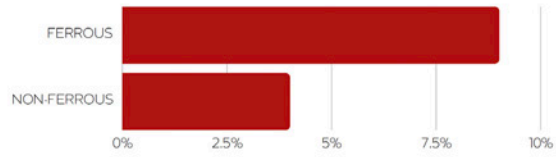
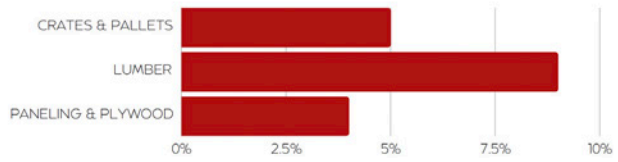
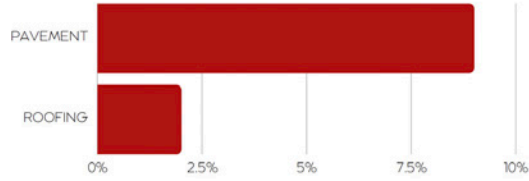
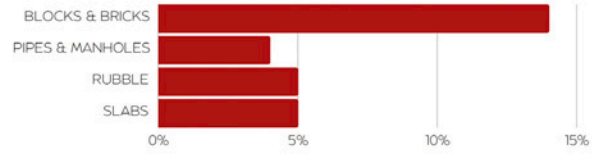
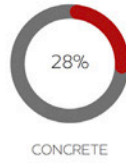


COMMERCIAL



YEARLY AVERAGE WASTE IN NYC

COSNTRUCTION & DEMOLITION WASTE



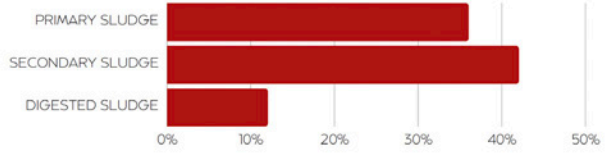
BIOSOLIDS WASTE



SLUDGE



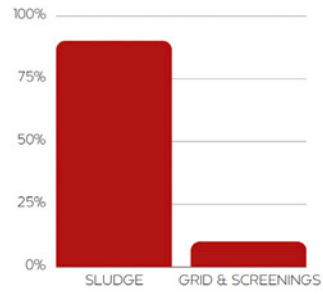
GRID & SCREENINGS



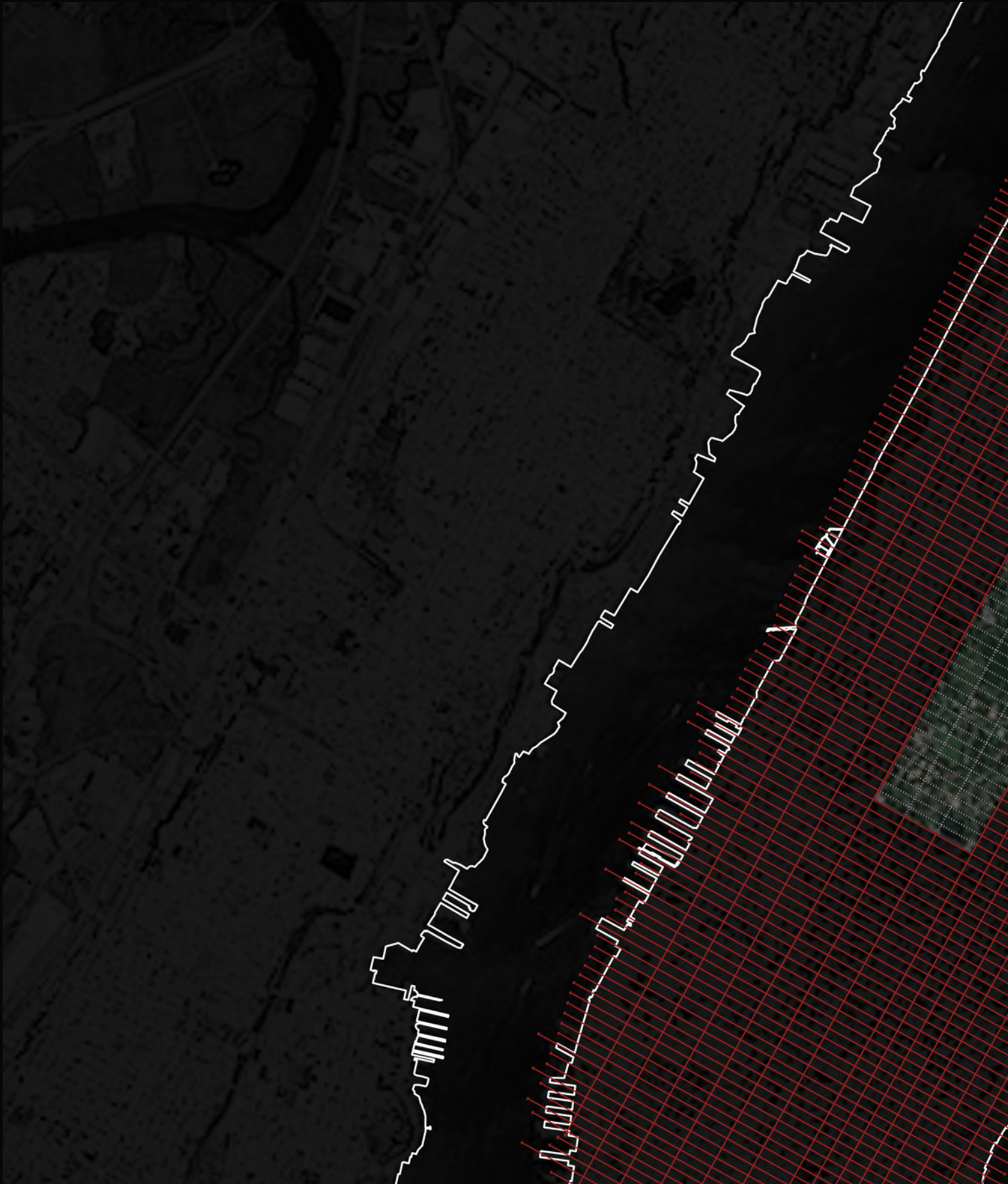
GRID & SCREENINGS

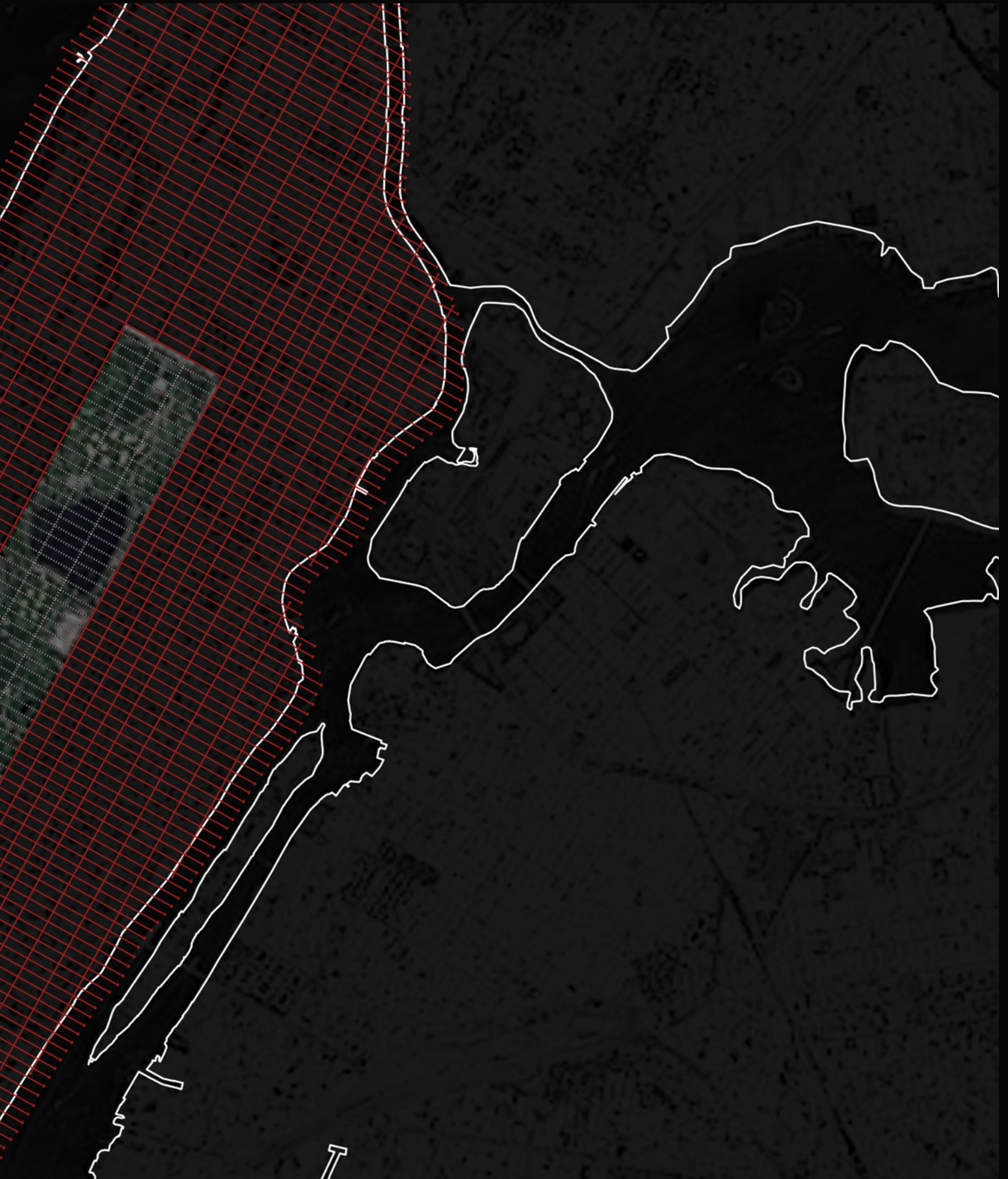


BIOSOLIDS



NYC GRID





10 RESOLUTION

This thesis is situated in the scenario of a dysfunctional society in which States refuse to cooperate with one another, and every State refuses to import NYC's waste. NYC would face the biggest waste crisis ever seen in American history, as the city exports its waste to New Jersey, Pennsylvania, Virginia, and South Carolina.

I'm proposing the implementation of a waste treatment plant that processes waste into a "Toxic Glacier" in Central Park, which was originally developed as a place to escape from the overcrowding and polluting streets. Because of the tremendous size this would conquer, there is nowhere in NYC to execute the project but the park.

Waste would undergo a process of careful decomposition and encapsulation of its remains in all states to avoid further ecological damage to the city while acting as a political agent that immerses people in a new system where they confront the consequences of the waste produced.

This encapsulation idea came from my study models from last semester. I experimented with blue foam, physically and chemically transforming it and later coated it with plaster to prevent it from wearing out. The massive plaster and concrete models show the notion of encapsulating melted toxic matter over time, which is revealed by the multiple horizontal layers.

CENTRAL PARK, NYC - SITE PLANS



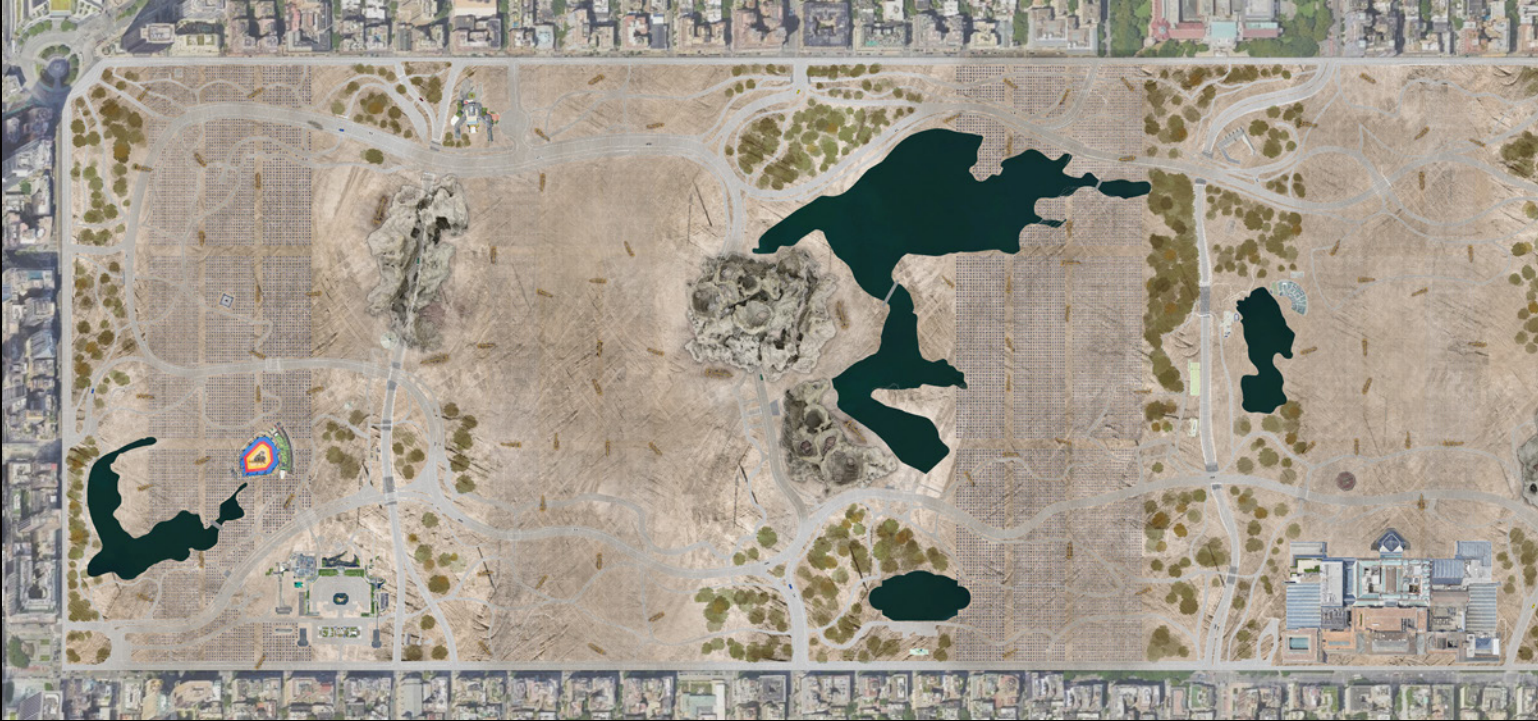
Current



During Facility Construction Process



CENTRAL PARK, NYC - SITE PLANS



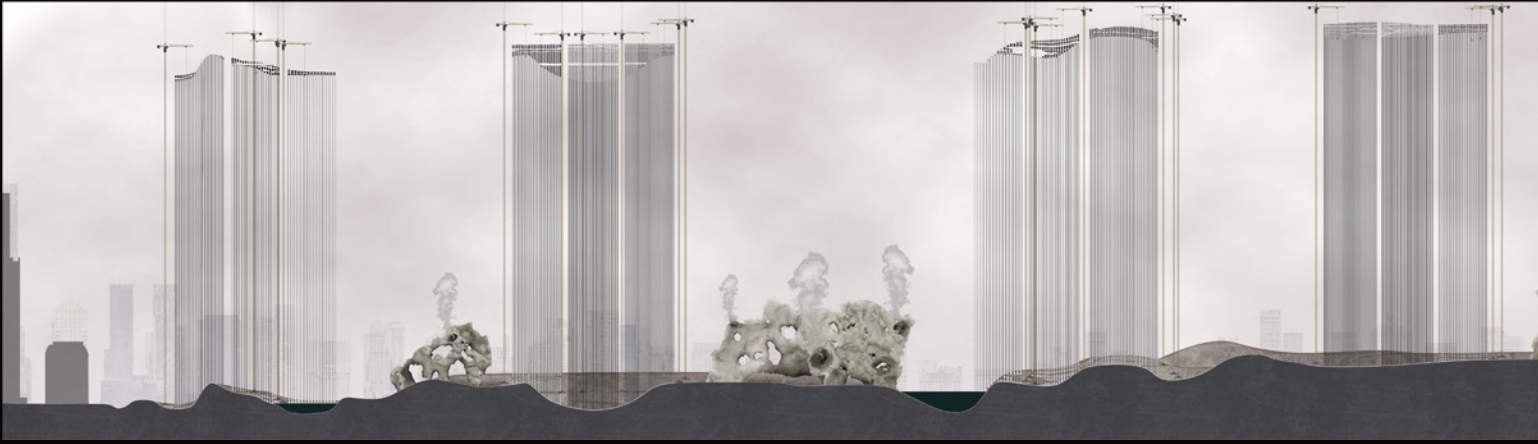
During Waste Blocks Construction Process



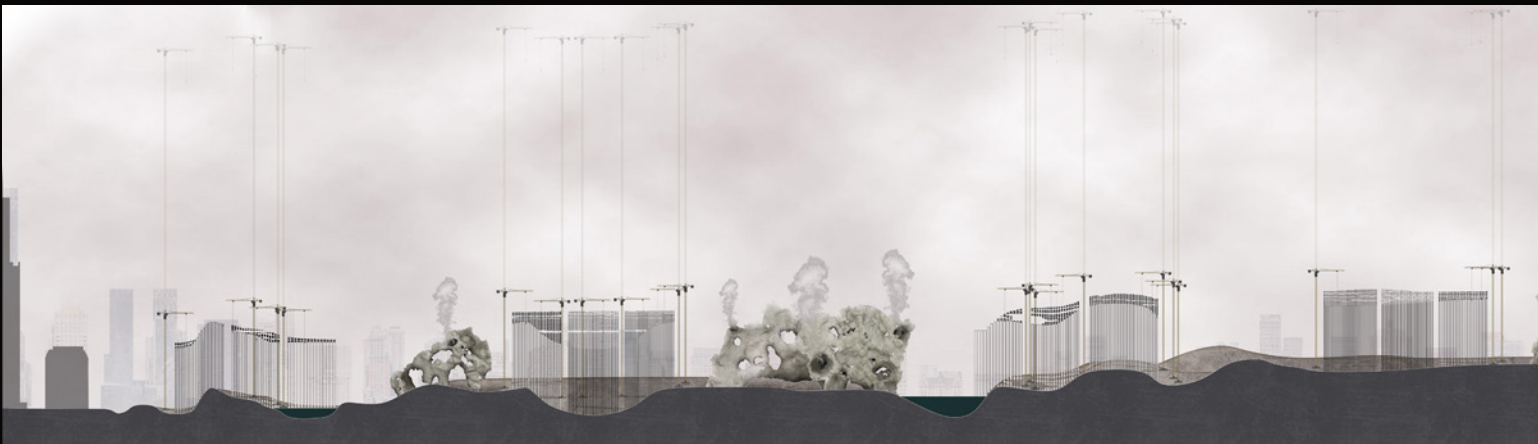
To reduce transportation, the facilities that process the waste will be located in the park as well. These take an organic form that contradicts the city's clean and beauty standards, and the structural material comes from recycled concrete waste. There will be 6 facilities that process each waste category, which are plastic, paper and cardboard, glass, metal, toxic waste, and e-waste.

This will be an ongoing project that will be constantly growing. As the facilities produce waste blocks, these are sent out and organized within the park's grounds taking the form of a grid to simultaneously criticize the vertical city. As the blocks stack up, they start to create a new landscape. The city becomes more suffocated each day as people lose their rights to civic and open spaces as they contribute to give them away.

CENTRAL PARK, NYC - SITE SECTIONS PREDICTIONS



100 Years



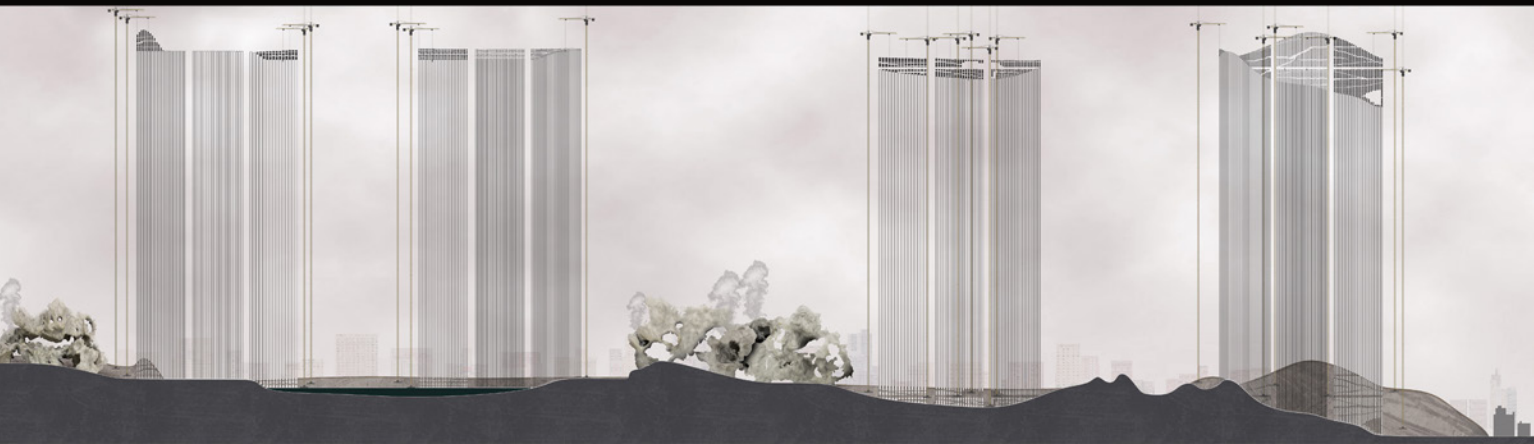
10 Years



1 Year



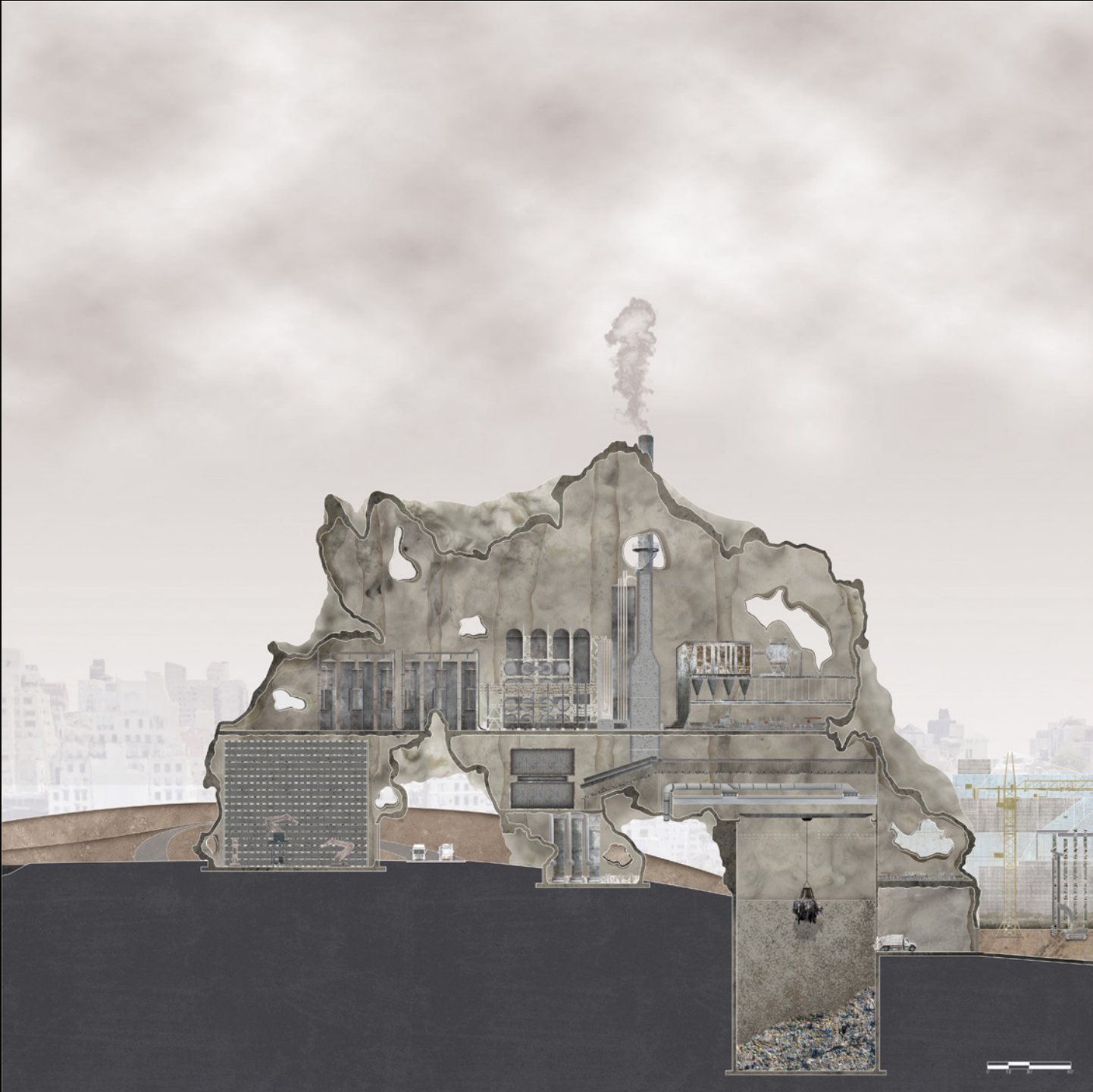
1 Day



WASTE TREATMENT FACILITY



Plan



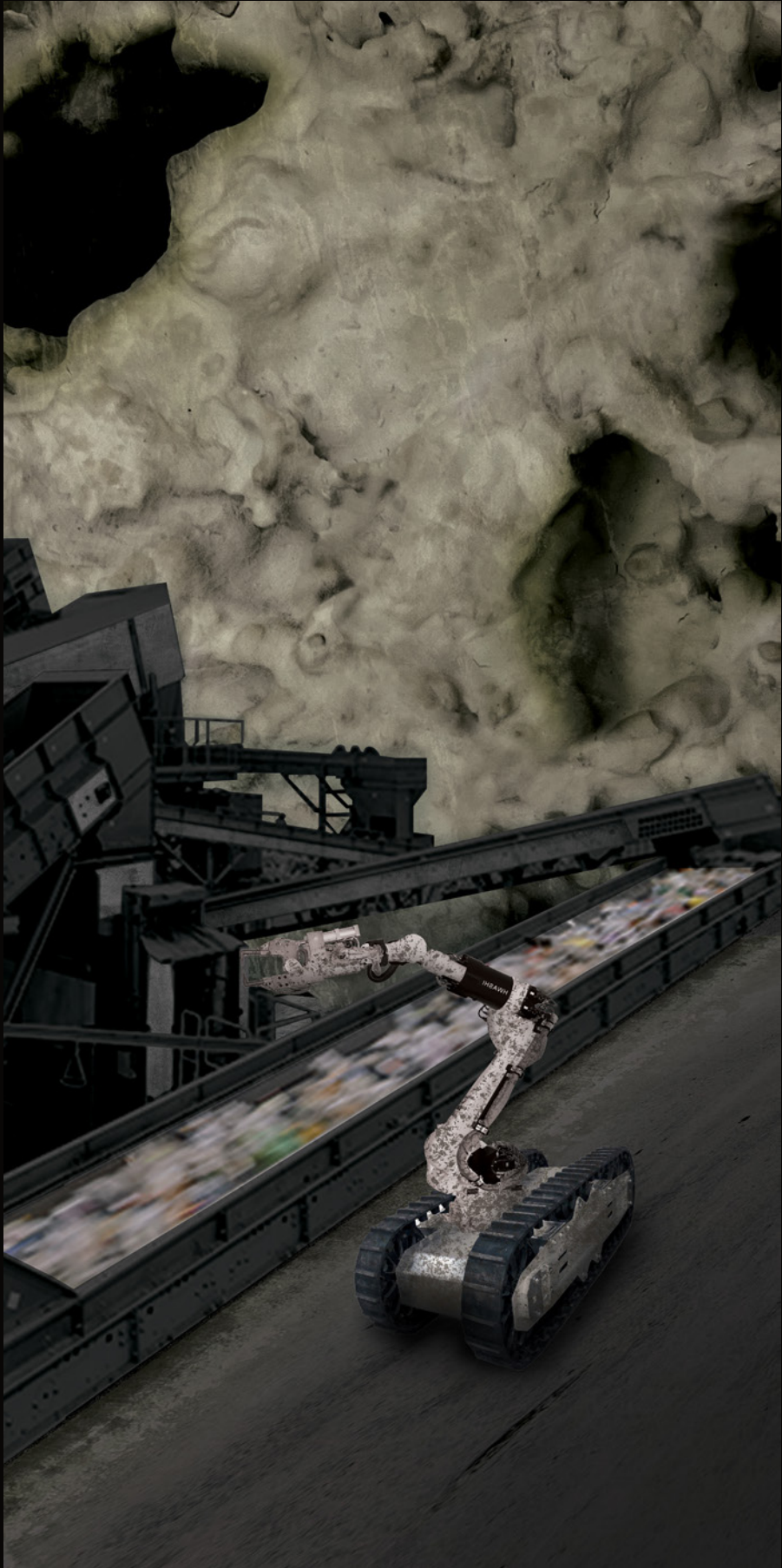
Section

WASTE TREATMENT FACILITY VIEWS





WASTE TREATMENT FACILITY VIEWS





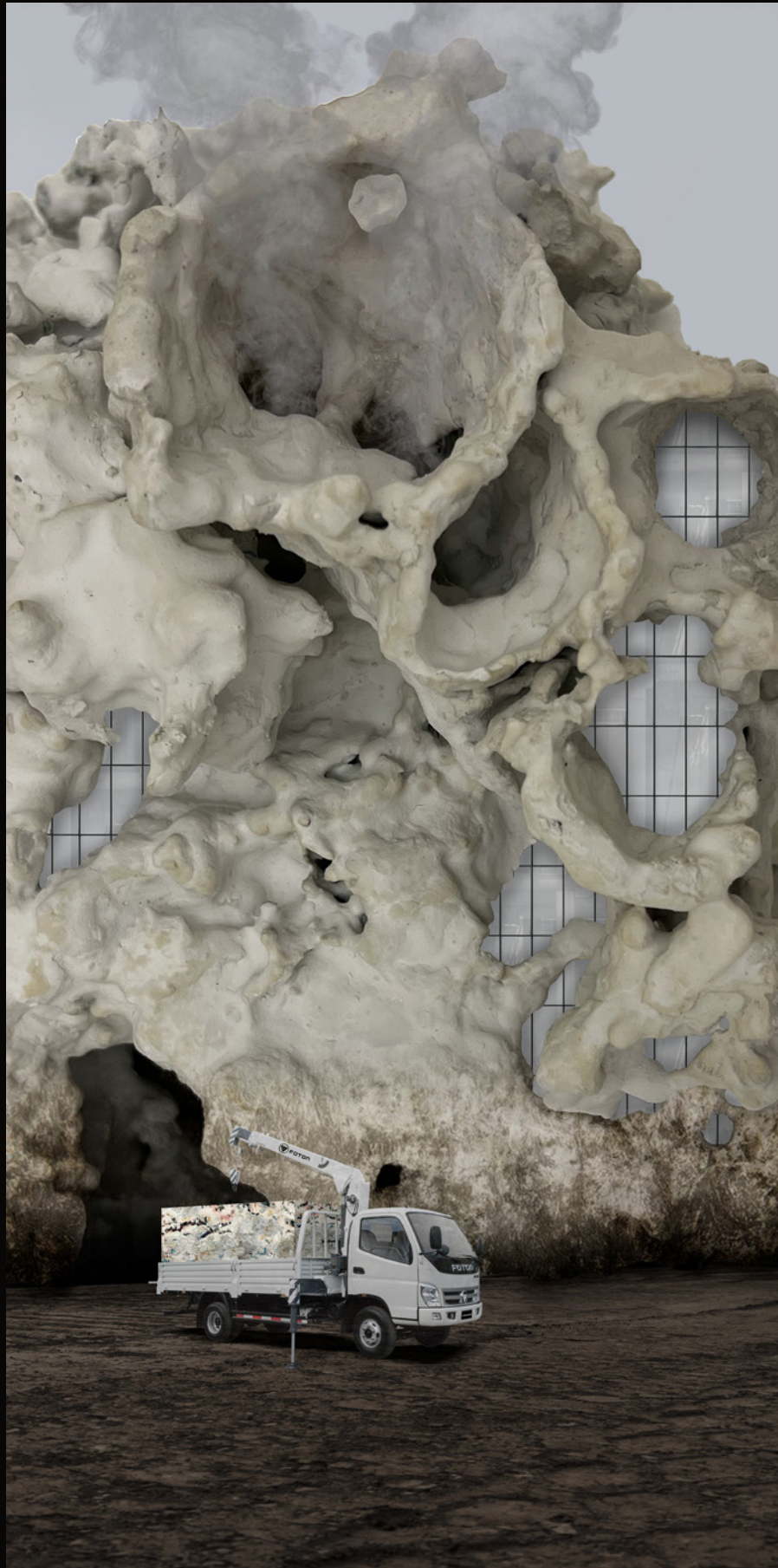
WASTE TREATMENT FACILITY VIEWS



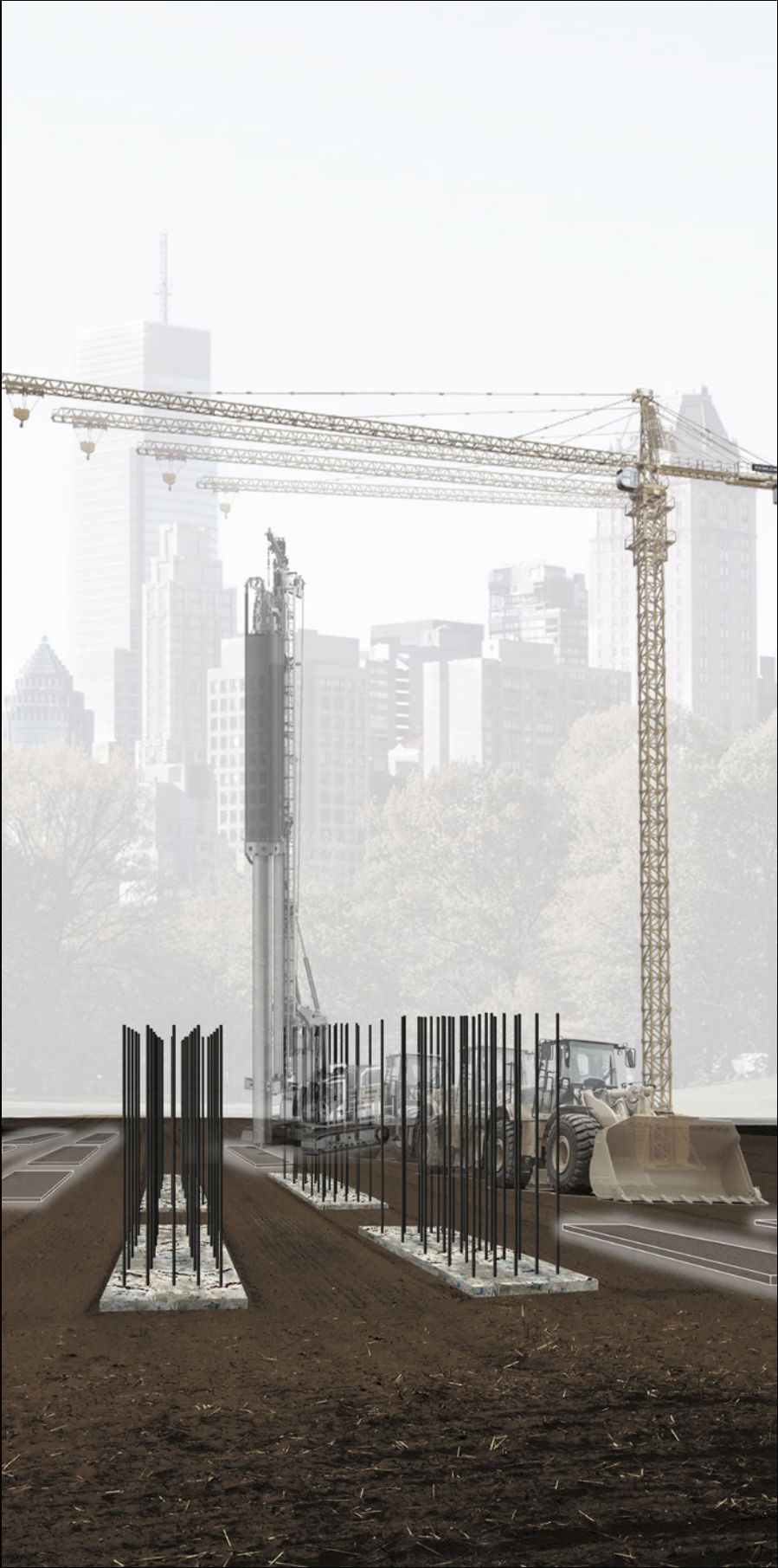


WASTE TREATMENT FACILITY VIEWS



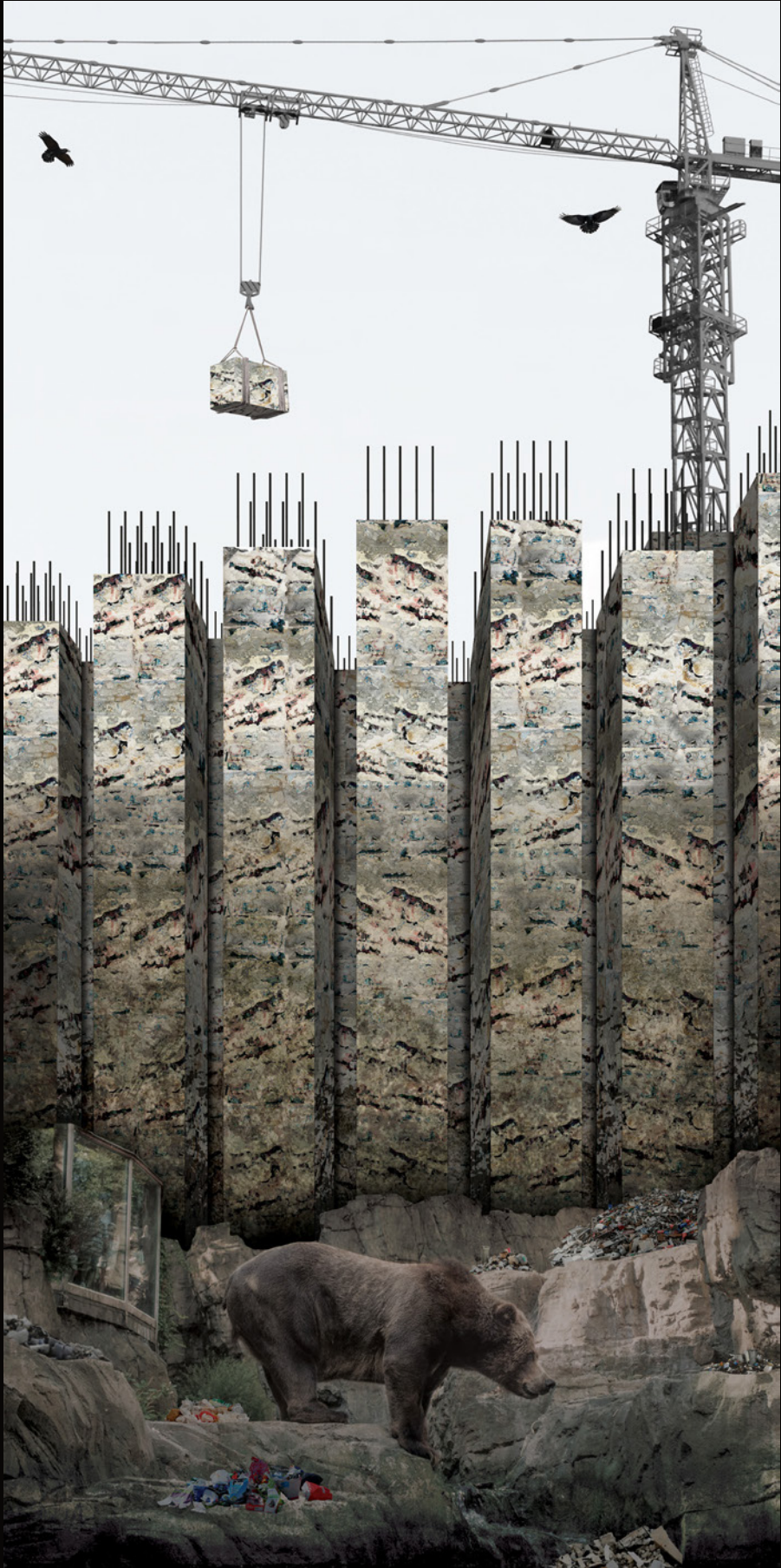


GROWTH OF WASTE BLOCKS VIEWS





GROWTH OF WASTE BLOCKS VIEWS





11 CONCLUSION

Central Park goes from a recreational place that everyone loves to be at, to a site of industry that repels people.

Over time, the waste blocks start to decay as they interact with the environment. Moss coming from the ground starts growing on them. As they become taller, the narrow spaces between them become darker, allowing citizens to pertain to activities that society condemns. From being a space where parents go for a picnic with their children, to becoming the perfect space for drug use and dealing. From being the perfect space to go for a jog through its paths, to becoming the new home of displaced people. From people being able to go and enjoy their visit to the zoo, to seeing how the animals are now surrounded by our waste. The park now becomes a contested territory within the public sphere. The glacier serves as a wake-up call to the city's residents. The aim is not to stop waste production but rather to force people to live with the consequences of their actions. As people tend to adapt to new climates, this project doesn't promise change but rather reveals the crisis that has been purposefully kept obscured.

This project uncovers the City's hidden motives for concealing waste from its inhabitants. It questions the City's intentions in keeping waste away from its residents. How much does the process of waste management devastate the water that surrounds us? Why are landfills systematically situated near oppressed neighborhoods? To what extent is the waste disposal process at isolated sites monitored, given the potential dangers to public health and the environment? What kind of financial benefits do those in charge of the waste disposal monopoly reap? The proposed system is an appeal to shake us out of our indifference. It screams at us that waste disposal is not a minor issue, but a pressing danger that poses a threat to our environment.

Valeria Otero López

Thesis Advisors: Jean-François Bédard, Britt Eversole, Julie Larsen

Syracuse University School of Architecture

Fall 2022 - Spring 2023

