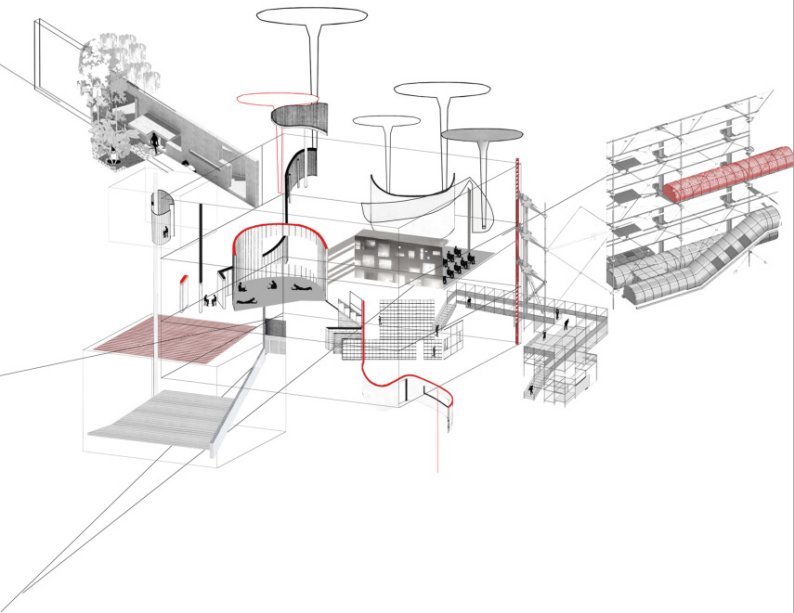


REFLECTIONS

Syed Haseeb Amjad

GSAPP MSAAD-23'



UNFORTIFY: PIER 57 PUBLIC HOUSING
Advanced Architecture Design Studio I Summer 2022

LOOS'S LOSS OF HEARING
Arguments I Summer 2022

THE FLOATING UNIVERSITY
Transculturalities Workshop I Summer 2022

TRANSCALAR DRONES
Transculturalities Workshop I Summer 2022

SARGASSUM FUTURES
ADV Studio V I Fall 2022

TOWARDS A TRANS-SPECIES ARCHITECTURE
Extreme Design I Fall 2022

SHADOW AND SHADOW
Architecture Apropos Art I Fall 2022

DECOLONIZING THE MONUMENT: MINARET, KILN & BONDED LABOR
Decolonizing Architecture I Fall 2022

INFECTIOUS BORDERS
ADV Studio VI I Spring 2023

INTELLIGENT GOWTH: THE BANYAN TREE
Nervous Systems I Spring 2023

GOO
The Outside In Project I Spring 2023

UNFORTIFY

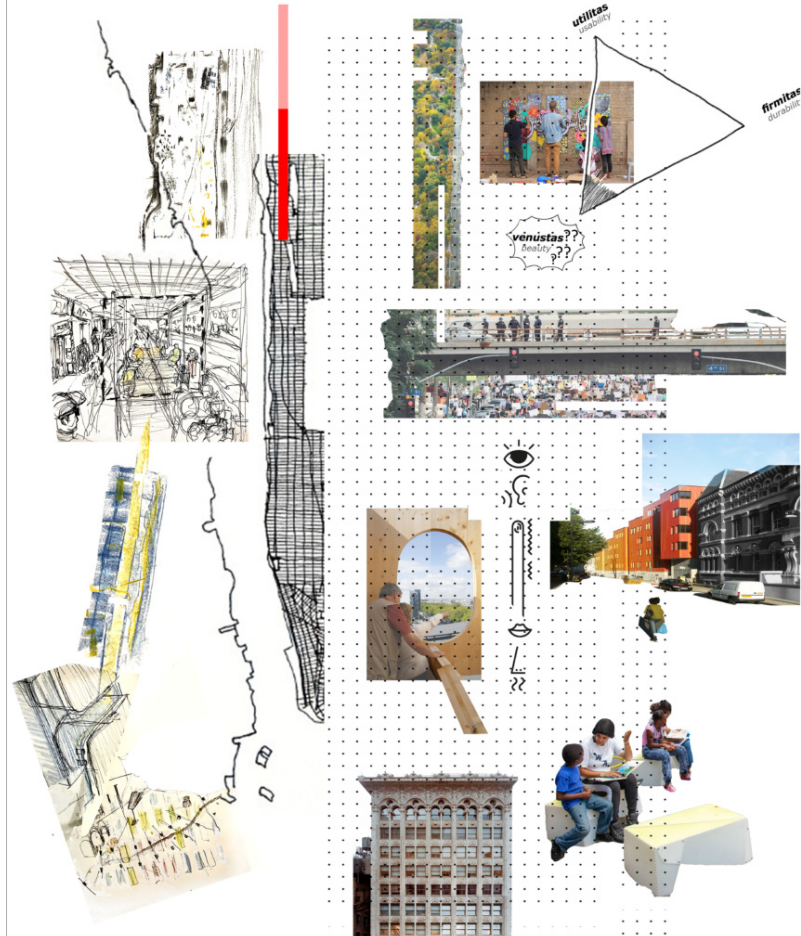
PIER 57 PUBLIC HOUSING

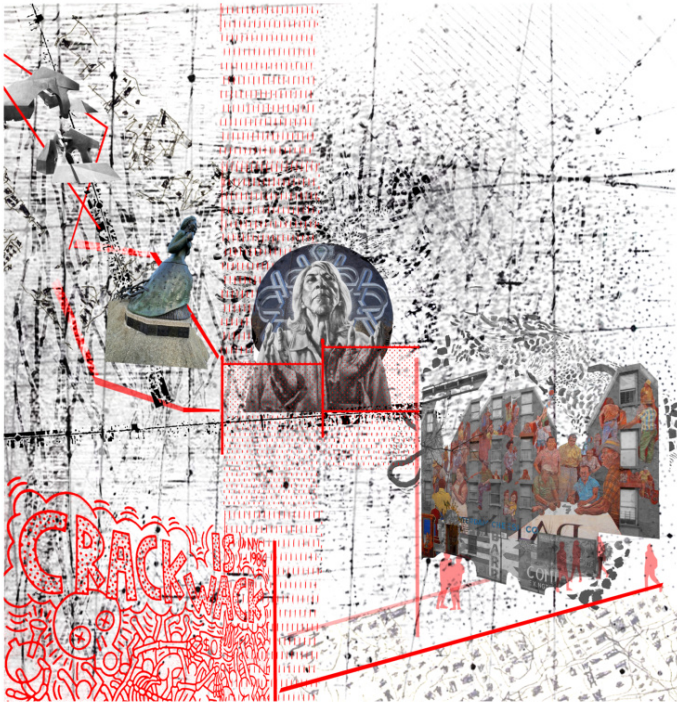
Advanced architecture design studio | Summer 2022
Critic: Karla Rothstein
In collaboration with Victoria Shay & Zhi Kang Liu

The project reimagines Pier 57, part of Google's Manhattan campus as public housing to address the lack of affordable living in the city, particularly West Chelsea. This neighborhood has experienced significant gentrification over the last decade, making life harder for the residents of the Fulton and Elliot-Chelsea houses.

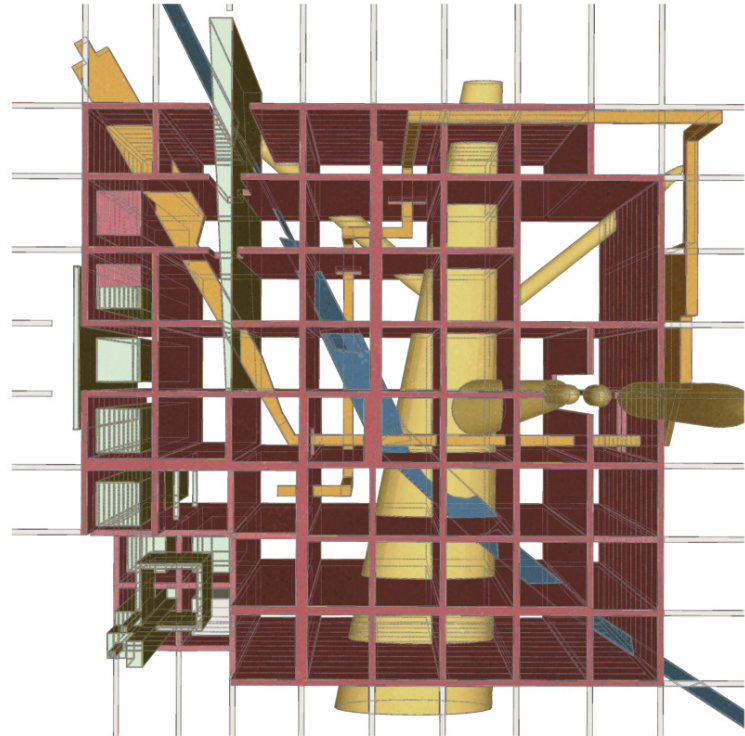
There is a stark rift of median income in this part of lower Manhattan, with household income below 30,000\$ in public housing, while it soars to 100,000\$ and above just across the street. The NYCHA waitlist for families requiring housing is over 71 years long with more than 17,000 families waiting to be accommodated. However, corporate real estate lies empty with a record rate of 18%, calling for a collaboration between private companies and public housing to help alleviate the housing problem. A collaboration between Google and affordable living is created through designing the co-existence of both entities in the pier architecture. The historical steel structure of the pier building is used as a mould to insert new programs to balance living with corporate operations.

Part of the underwater caisson is used as a data center for Google, allowing the company to remain involved in looking after the building. The remaining caisson is used for public activities that generate income for the housing. The street entrance is opened up as an open market, and also serves as an entrance to the Pier. The ground floor plate is used for commercial purposes such as shops and restaurants, while the upper three levels serve as housing for families in the 51-80% household income range. The inner atrium becomes an interactive environment with staircases bridging across for connectivity between homes. The housing cluster consists of 6 units to cater to the complete range of family members per household.

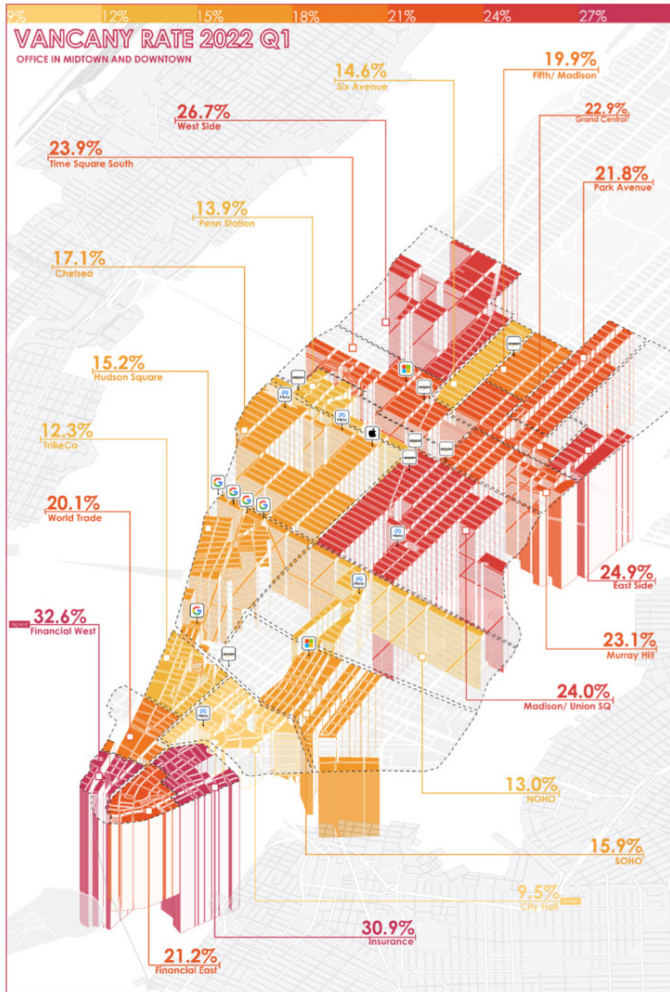




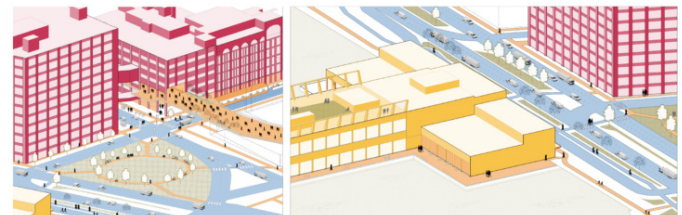
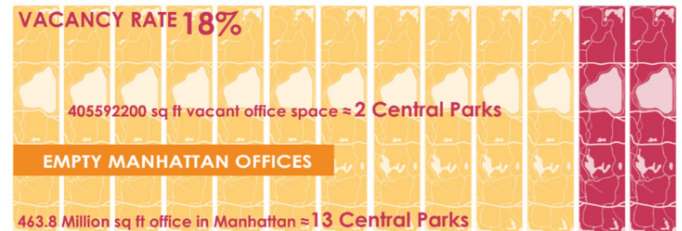
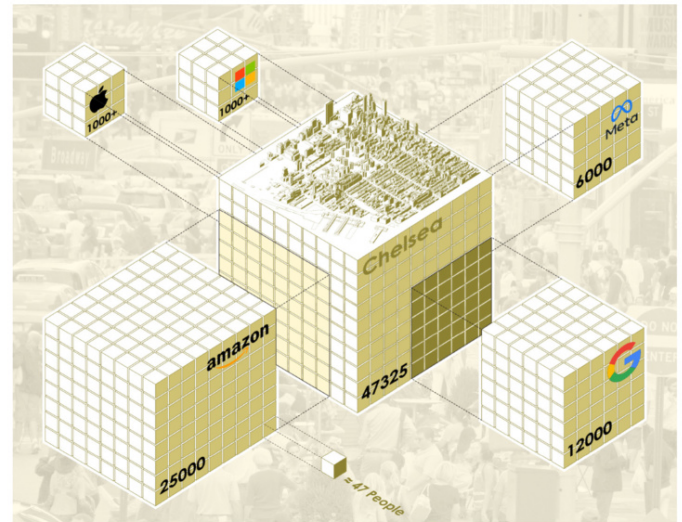
unfortify | harlem public art



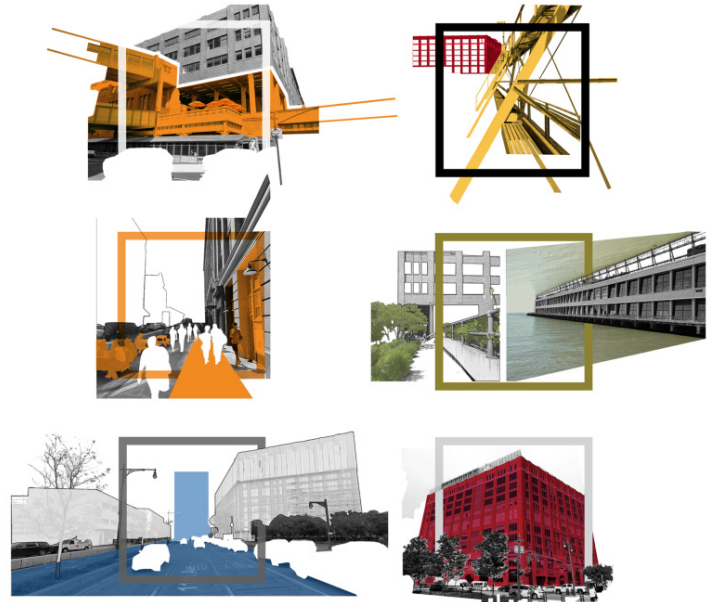
unfortify | interference



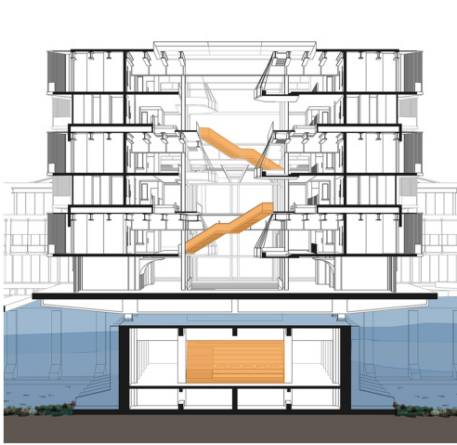
unfortify | office vacancy data representation



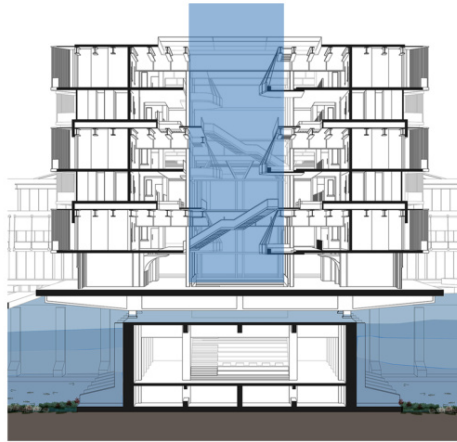
unfortify | neighborhood / corporate occupancy







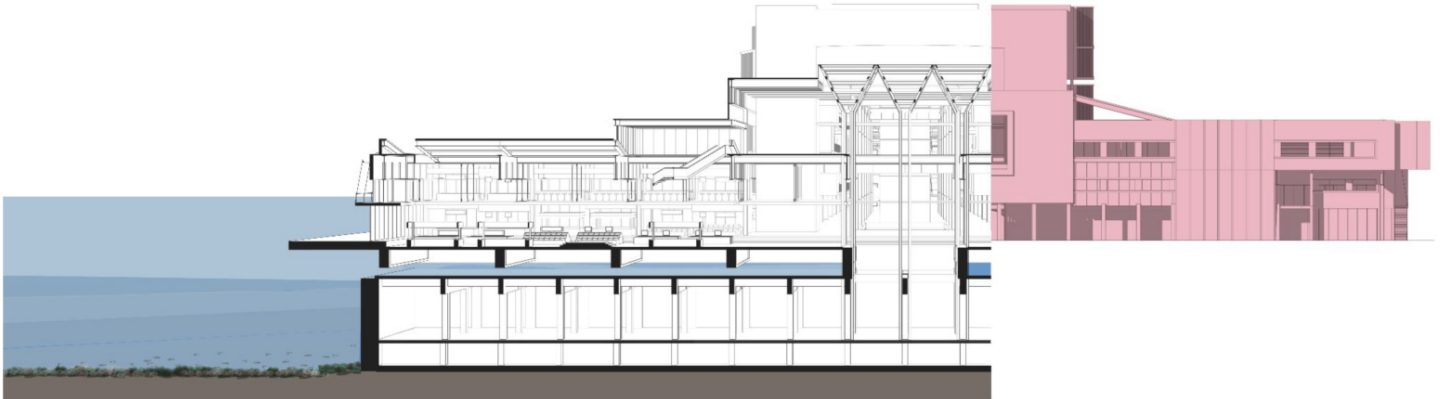
CONNECTION



DIVISION

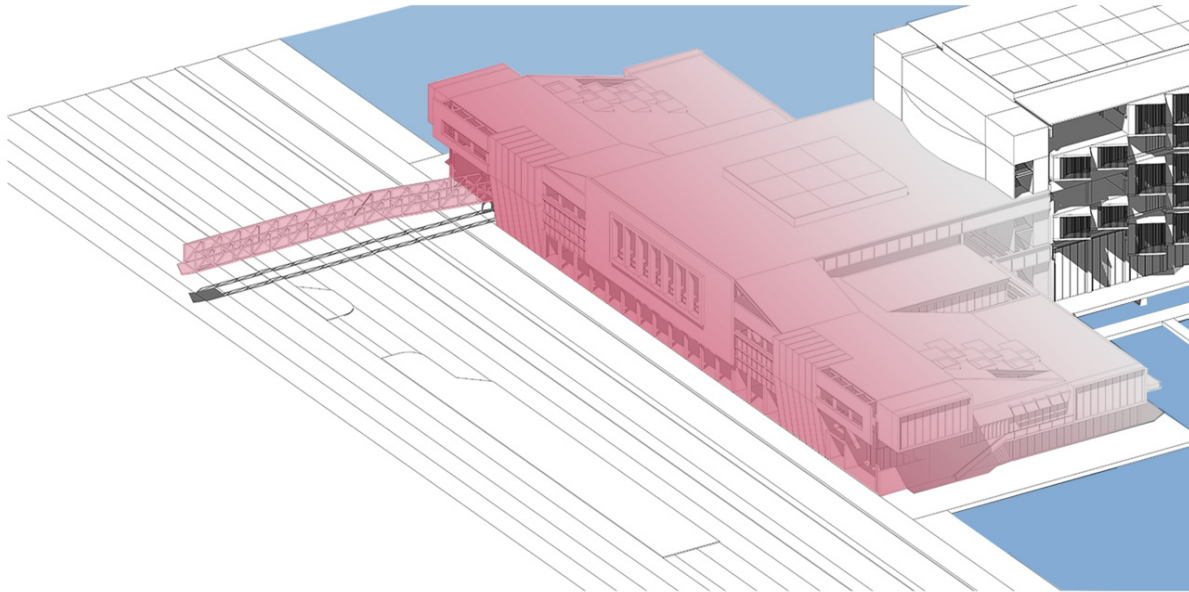


OPPOSITION

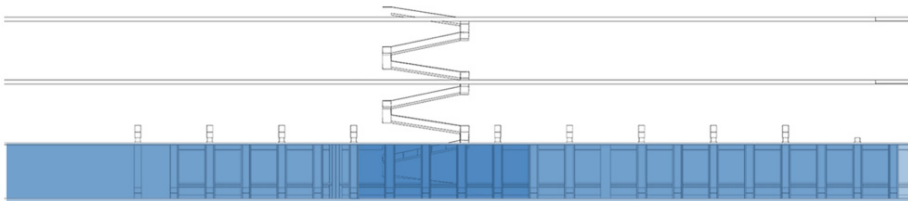


unfortify I applied syntax - cross section

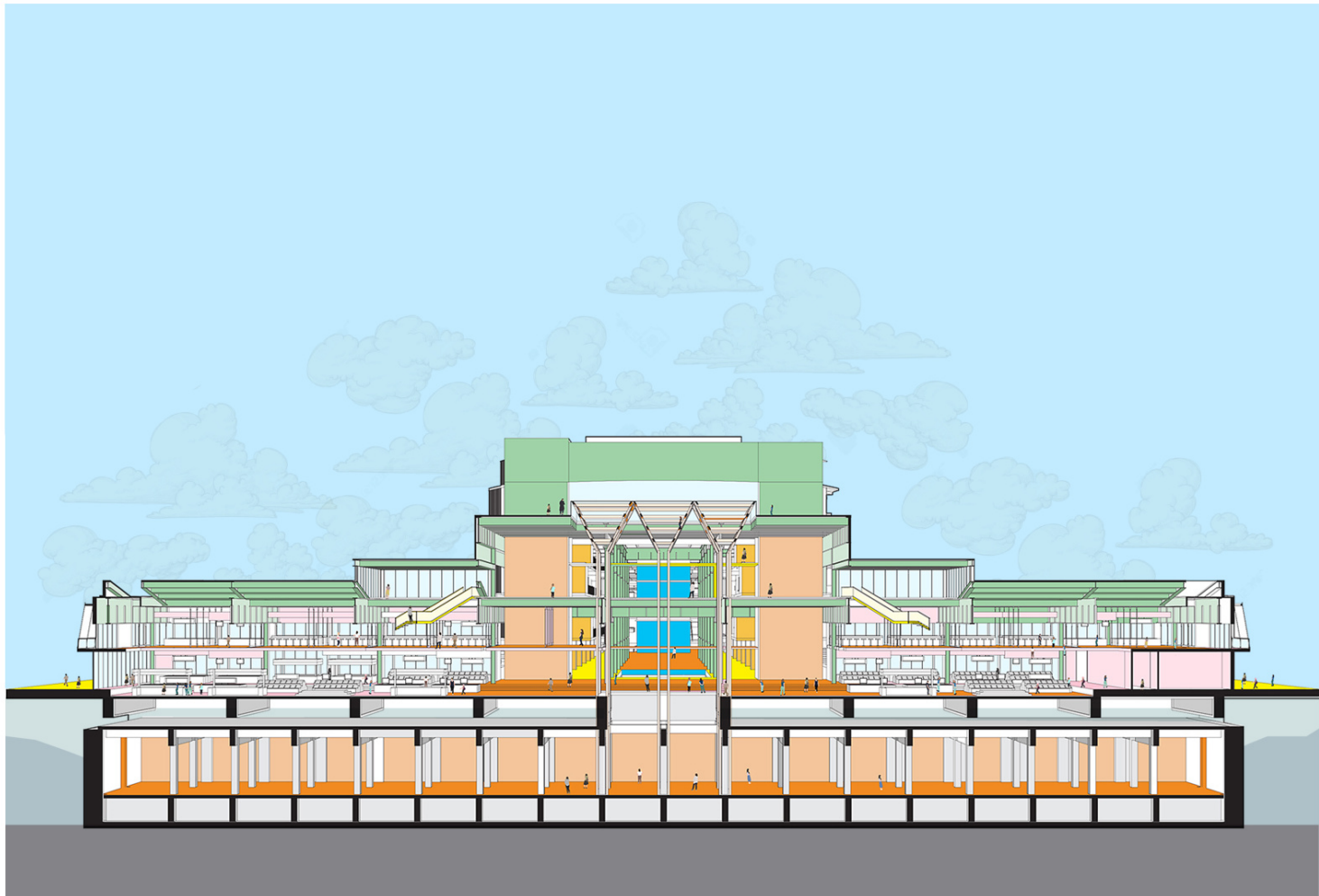
unfortify I applied syntax - long section



FORTIFICATION



NATURE

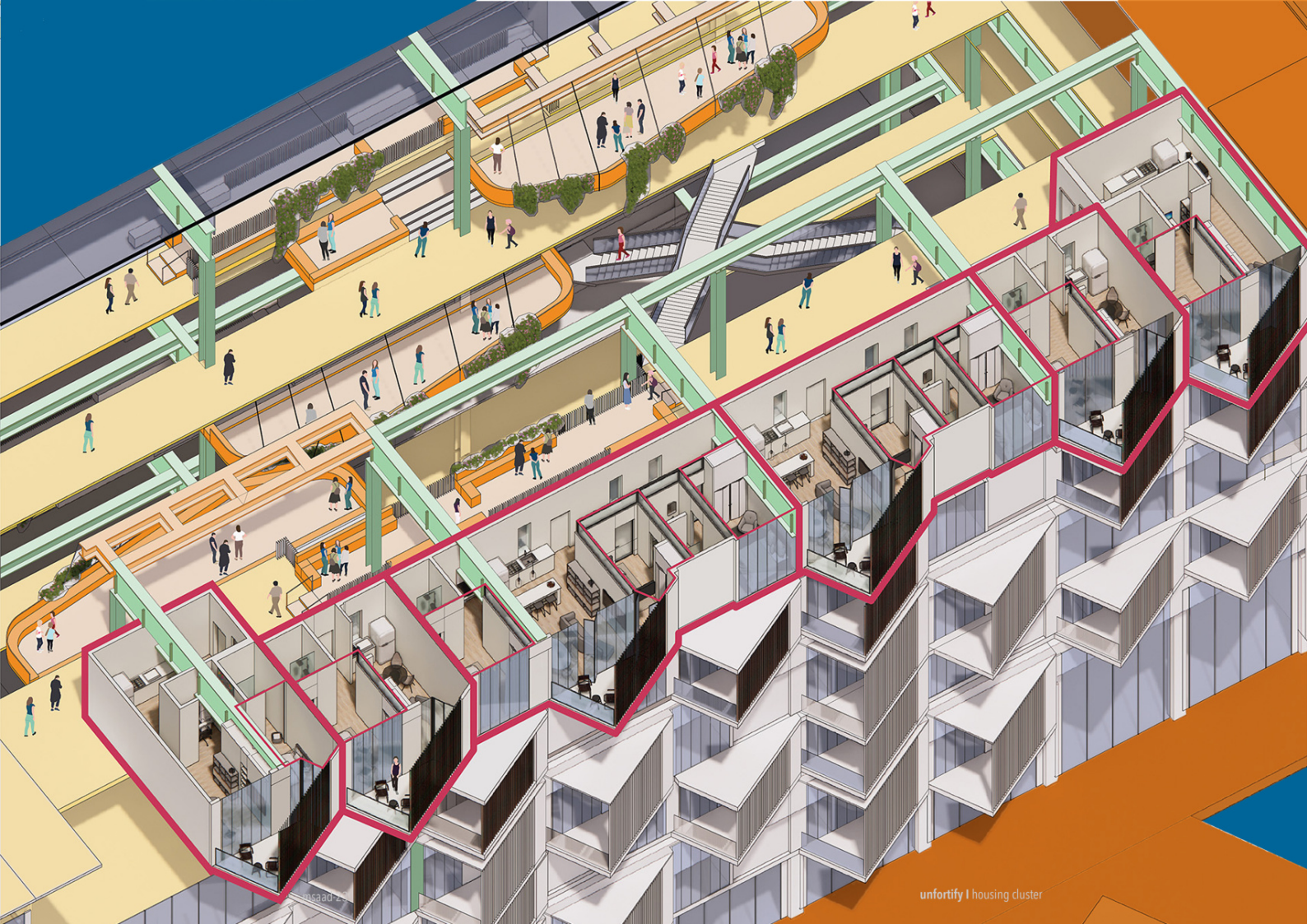


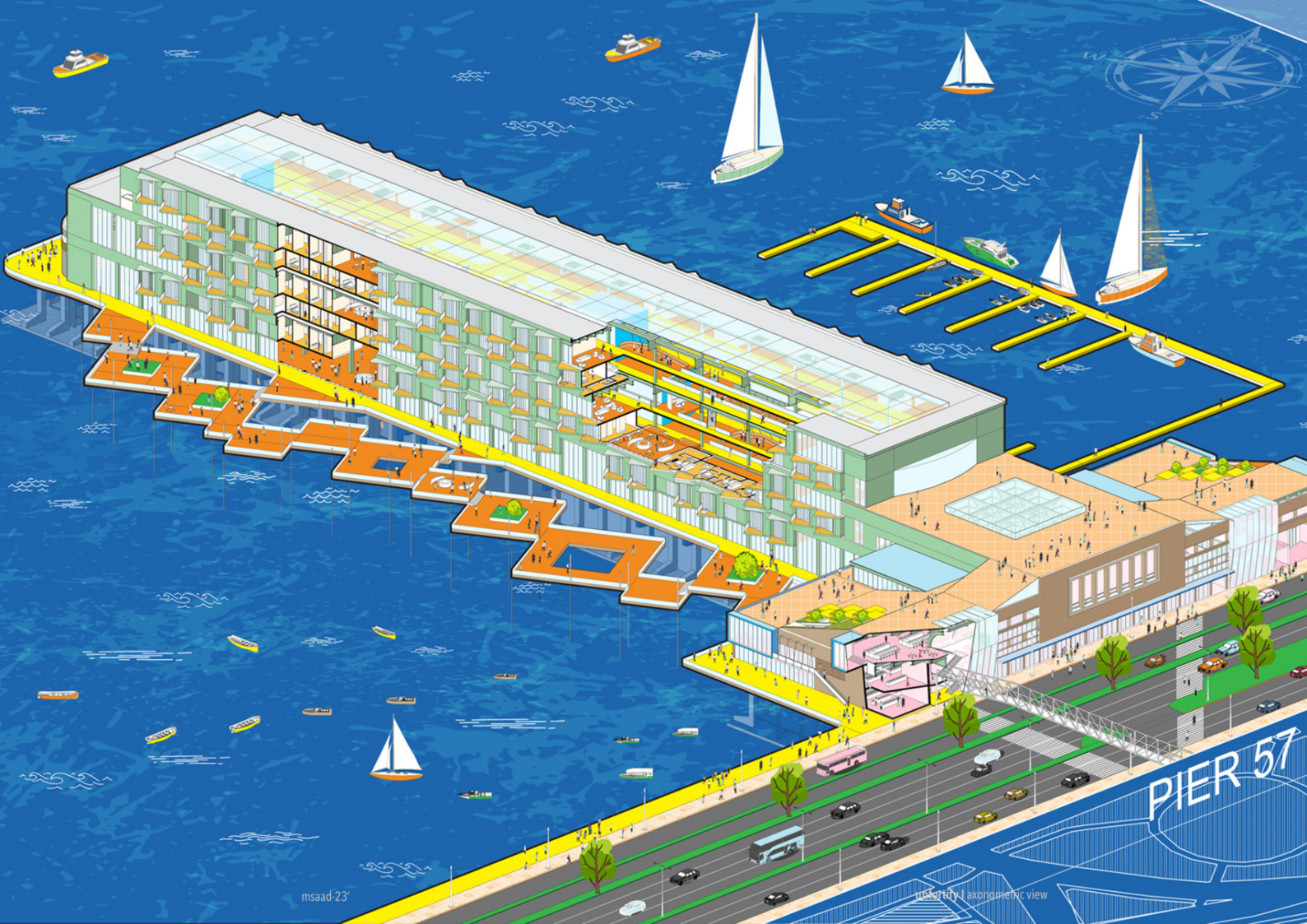


unfortify I interior market view



unfortify I interior atrium view





LOOS'S LOSS OF HEARING

Arguments I Summer 2022

Professor: Ashraf Abdalla

Director: Andres Jaque

What are the connections between Adolf Loos's loss of hearing and his attention to acoustics in his architectural work? This issue will be studied from the article 'Tuning into the Void: The Aurality of Adolf Loos's Architecture' by Dr Ines Weizman, which suggests there may be connections between his loss of hearing and his later architecture, using his design of the unbuilt house for Josephine Baker as a precedent. Dr Ines Weizman is an architect and theorist who uses the method of 'Documentary Architecture' to study the material history of buildings and artifacts of media and technology. She heads the Mphil/Phd program at the Royal College of Art. She trained as an architect at the Bauhaus, Ecole d'Architecture in Paris, Cambridge University and the Architectural Association. In her writing, which was published in the Harvard Design Magazine (GSD) in 2014, she argues that Adolf Loos had an advanced sense of architectural acoustics which became translated into his later work as his hearing weakened. However, while she makes various connections between his hearing and his personal and professional life which provide insight into his personality, the argument is mainly based on speculations.

Adolf Loos (1870-1933), the venerated Austrian architect and theorist of modern architecture is known for his 1910 lecture titled 'Ornament and Crime', where his stance towards decoration is visible in his statement, "the evolution of culture is synonymous with the removal of ornamentation from objects of everyday use." He attributed his architecture to being conceived in spaces rather than the conventions of plans, facades or sections. Dr Weizman adds to his architectural sensitivity by highlighting his interests in acoustics. She mentions that while his hearing had worsened significantly by his mid 50's, making him reliant on a hearing trumpet, he had a sharp attention towards sounds in his interior spaces. While she quotes his elaborate choice of materials and his treatise 'Mystery of Acoustics' in 1912, where he highlights how brass instruments have a detrimental effect on a concert hall's acoustic potential, the account seems speculative due to lack of scientific evidence. Loos stated that the acoustics of a space improve over time as music is performed inside its walls and absorbed over time. However, as acoustic measurements became more quantifiable in the 20th century, it can be seen that Loos's premise is inaccurate, and in fact, the opposite of scientific discoveries regarding the behavior of sound which depends less on materials being seasoned after exposure to sounds over time and more on the space it is created within.

Based on Loos's memoirs, 'The Private Adolf Loos: Portrait of an Eccentric Genius' published by his wife Claire Loos in 1936, Loos's aural issues and their effect on his personal life became quite apparent, and may have been a reason for the misunderstandings during meeting Josephine Baker as mentioned by Weizman. His erratic behavior, abrupt interjection of conversations, openly claiming that he was deaf in events dedicated to him and being disinterested in a piano lying in his apartment suggests his hearing loss. It was during this time in 1925 that he may have met Josephine Baker, a famous erotic theatre performer of the time. Loos had relocated to Paris in search of commissions, where he may

have met Baker. In an 'encounter packed with obscurities' he felt that he may have gotten asked to design a house by Baker. It is not clearly known whether Baker had truly commissioned him for her house during when they met, or if it was his bad hearing or pure wishfulness that made him believe he was to design her a house.

While Loos's weak hearing may have been a reason for assuming he had gained the commission, other notable artists have also considered Baker a muse for their art without having been commissioned directly. Corbusier, who had befriended Baker and had prepared sketches for her house was disappointed when he wasn't awarded the project. The surrealist painter Fernand Leggier had introduced her to the surrealists, while Matisse had kept a cardboard cutout of her in his room. The renowned sculptor Alexander Calder had built a model of her in wire. This begs the questions of whether Adolf Loos, like other artists and creators, may have considered Baker a stimulus for his work through sheer admiration rather than misinterpretation due to hearing loss.

The design of the house for Josephine Baker did not reflect Loos's interest in internal materials and acoustics. While materials and sound were a clear interest of Loos, the materials of the house, except the black and white strips on the elevation were not proposed despite its intimate scale. The house may have references to the theatrical and film work of Baker, it is unclear to what depth he had considered its acoustics. The large swimming pool on the first floor is the most dominant feature in its plan and seems to be more of a visual spectacle through which Loos would imagine observing Baker (Figure 1, Figure 2).

While Weizman states that the pool had undeveloped acoustic detail, the same seems to be the case for the rest of the interior. Some features of the house, such as the grand salon and petit salon, did reference other built projects where the internal materials were given attention. According to Beatriz Colomina, the house is more of a visual device for Loos's voyeurism towards Baker, but Weizman stresses on its visual qualities as a means to emphasize the lack of dependence on its acoustics.

Ines Weizman's attempts to link Adolf Loos's hearing issues with his architectural career offers a window into his unique personality, personal tastes and relations. His weakened hearing may have marked a shift in his later career with higher emphasis on visual aspects in comparison to interior materials and sound, the questions of how his hearing related to his architectural work may only be answerable through speculations and assumptions drawn through the accounts of those who lived around him.

THE FLOATING UNIVERSITY

Transcalarities Workshop I Summer 2022
Professor: Benjamin Weisgall
Director: Andres Jaque

The Floating University, originally titled The Floating University Berlin was created as a temporary inner city space for experimental learning and transdisciplinary exchange of ideas in 2018, Berlin. Raumlabor, the architects behind the atypical pedagogical architecture, base their philosophy on experimental design that tests ideas on small scales and is embedded in local conditions. They explore the intersection between architecture, art and intervention in the urban realm. Moreover, including the users of the work in the design and execution process is an important part of their practice. They aim to work on abandoned or leftover sites that may have potential for urban renewal. The location for the Floating University, an old, polluted and forgotten concrete rainwater basin built to serve the Tempelhof airport perfectly fits this criteria. Built in the early 1930s, the basin is fully functional to this day but had remained closed to the public for more than 60 years during which it grew a diverse ecology of animals and plants. The man made structure, taken over by nature, and now reimagined through Raumlabor's intervention becomes a 'third-landscape' according to the architects.

Located in the center of Berlin, the project is a form of urban reclamation for the people. The 'offshore laboratory' is an example of informal architecture built by the collective efforts of teachers and students from Berlin and other parts of Europe. The multileveled complex relates to its varied educational formats through flexible programs such as classrooms, workshops, auditoriums, a tower laboratory for water filtration and amenities including a kitchen, bar and toilets. The auditoriums are found on the ground level, while the classrooms are elevated in pod-like structures. Floating University is visited by students and scientists from over twenty international universities along with artists, local urban experts, architects and performers who engage in activities such as workshops, lectures, seminars, film screenings, concerts and performances. The positioning in the middle of the water body also encourages visitors to access and explore the shallow basin water.

While the architecture seems highly informal, the topics of interest are serious and important to the future of Berlin and urban practice. The unstructured arrangement of programs that are planned and executed by hands-on involvement alludes to the idea of a rapidly changing city which needs the direct involvement of its stakeholders for a better tomorrow. Pressing concerns such as the risks of global warming, sustainability, shrinking resources, super-diversity and excessive development are discussed in the campus along with potential approaches for adopting efficient ways of future living.

Funded by a number of organizations including the Bauhaus heute fund that emphasizes the continuity of the Bauhaus in contemporary time, the sculptural space was built in the 2018 summer. While it was meant to open temporarily for only 3 weeks to visitors, its popularity grew beyond expectations. The network of practitioners that had converged on this idea decided to keep the Floating University alive. However, as it did not meet the standards of a typical university according to Berlin's Higher Education authority which states that only 'proper' universities may use the name, it adopted its current title of Floating University.

TRANSCALAR DRONES

Transcalarities Workshop I Summer 2022
Instructor: Benjamin Weisgall
Director: Andres Jaque

Drone technology, with its growing use in commercial and personal domains, is a growing part of modern life. However, are we awake to their social, political and cultural implications in the near future? In the 2015 Drone Aviary research project by Super Flux Lab in London, drones are imagined patrolling, observing, and taking autonomous decisions in the near future of the city. The group designed and built a variety of drones with distinct abilities and purposes, which were displayed through exhibitions and included a short video that offers us a window into their drones' operation at distinct scales through the eyes of the apparatuses themselves. While the project shows drones as promising, in their disarming scale and efficiency, it cautions us about how intrusive and impersonal they may be as they consider humans as sources of information with no boundaries of privacy.

Five different drones are showcased through Drone Aviary, where each has a special purpose in how it intervenes in people's lives. They have functions including advertisement, news, surveillance, traffic management, and personal use. The 'Madison' studies facial expression to judge the levels of happiness in the public and feeds them programmed advertisements. The 'Newsbreaker', an example of 'high-frequency journalism', provides instant live feeds of news in the city before human reporters reach the scene. The 'Nightwatchman' provides 24-hour surveillance by tirelessly scouting neighborhoods. It has eyes everywhere, judging individuals based on how they look. The 'FlyCam' personal drone allows vantage points to upload your daily life on voracious social media. The 'RouteHawk' traffic assistant, seems least intrusive as a flying traffic camera that issues speeding tickets and detects traffic jams. The drones have a robust feedback system that covers the city from the streets to inside people's homes. The project makes us think about allowing this technology into our lives, the political control it may give to governments, and the lack of privacy it will lead to. Can drones be used as an authoritarian tool for controlling and directing people? Do their ethical implications afford reconsideration?

The Drone Aviary project leads to further questions about international interventions that use this powerful technology. In recent warfare technology, autonomous drones are at the forefront of risk-free military action. They have become highly advanced since their use in international operations against international terrorism. For instance, the Predator drone is a precise, undetectable, and menacing weapon that is capable of providing live and crisp reconnaissance imagery of human targets on the ground while executing them at the push of the button. It crosses territorial scales, as seen in the execution of Baitullah Masud. The Taliban leader was killed along with eleven companions in Pakistan using the Predator. This has raised questions about international assassinations through machines, the damage they have caused to civilians during 'target practice', and how the explanation of these attacks is left to the countries where they were operated rather than from where they were ordered.

SARGASSUM FUTURES

ADV Studio V | Fall 2022

Critic: David Benjamin

In collaboration with Daniel Vanderhorst

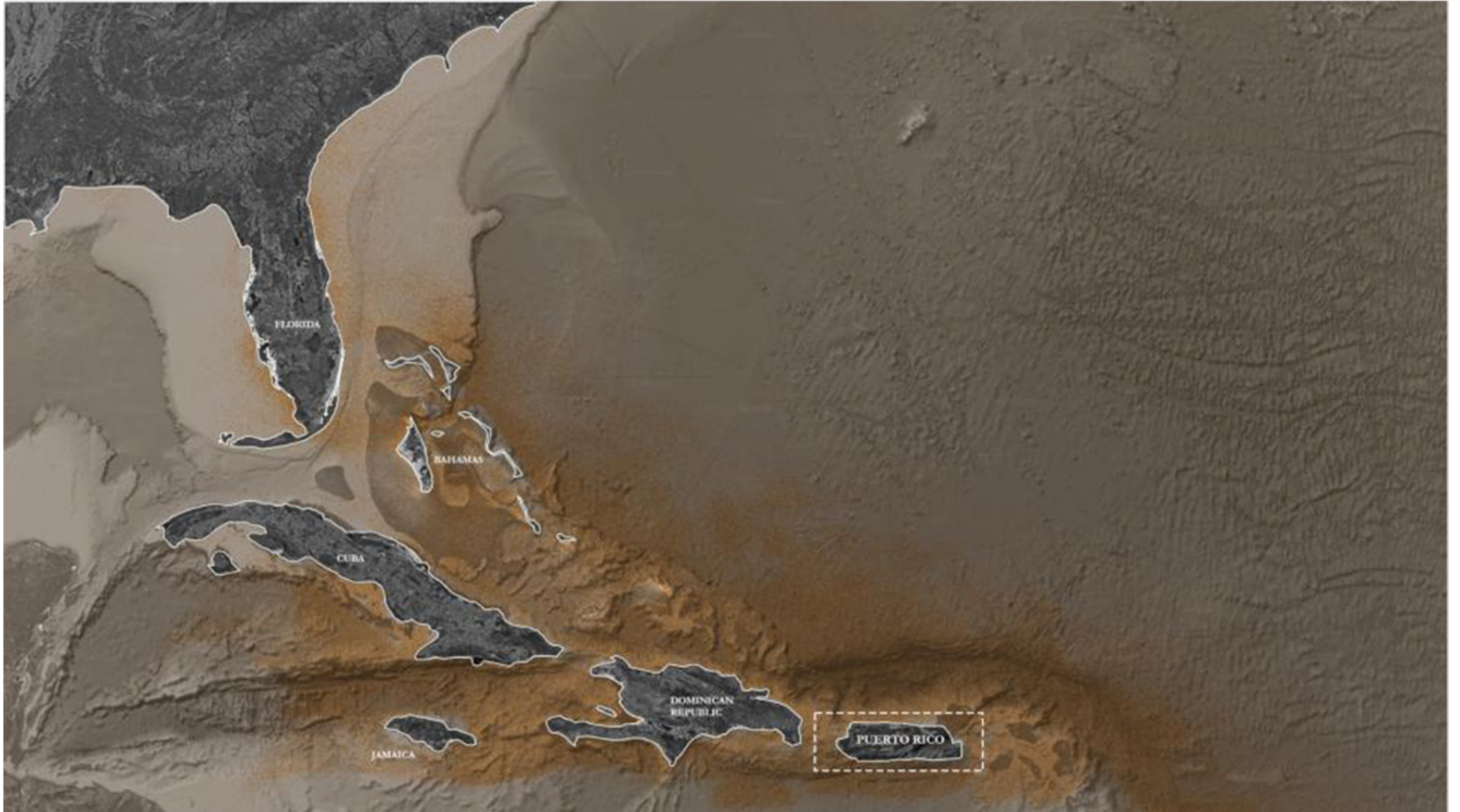
We are not only interested in the material and architectural qualities that carbon negative construction materials can offer, but also the potential that they can have on different models of urbanism.

The studio explored a new urban community in the year 2030 which is deeply tied to Sargassum, a natural, carbon sequestering macro-algae that has grown uncontrollably in the Atlantic Ocean over ten years. The seaweed is sourced before it reaches the Caribbean shores, after which it is processed to create raw material for construction blocks. The blocks offer low embodied carbon along with opportunities to experiment with load bearing masonry construction. After agreeing upon a localized building and ethical framework, members are given the freedom to build on their own, resulting in a ground up, iterative approach that can explore new ways of living in an eco-based urbanism.

The studio project included working directly with seaweed to create material prototypes which inspired design in the later phases of the semester. Experimental models and drawings became a constant part of the process, where carbon offset models were created along with studying miniature art as a dynamic means of representing time, labor and community. The final stage of the project saw the creation of a physical model that was meticulously built using seaweed as a core ingredient. In the model, the community was imagined creating various types of buildings which are shown evolving according to growing number of members, building program and technology.





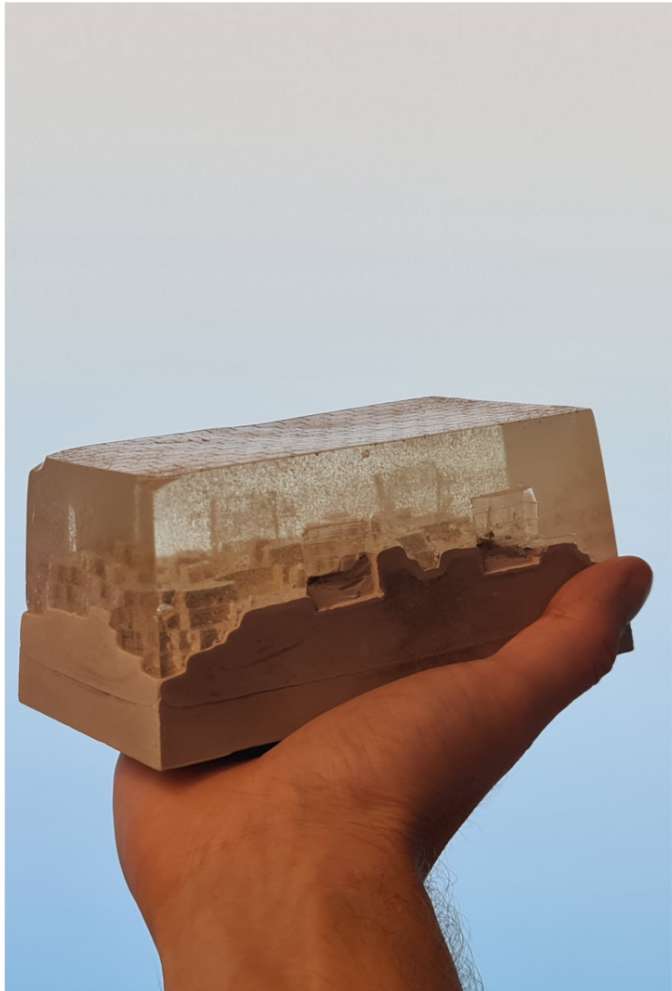




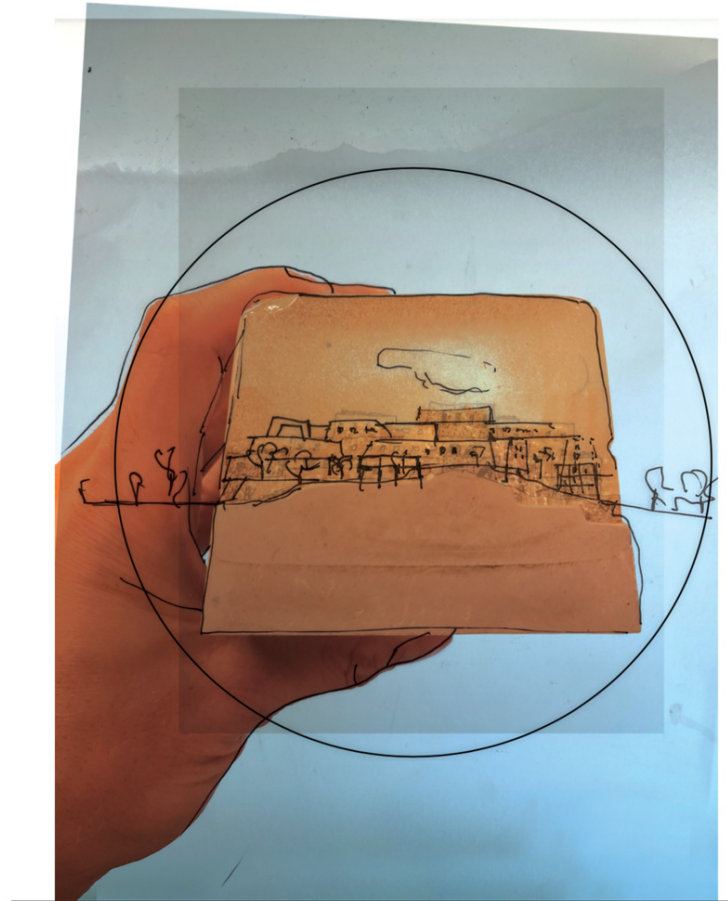
sargassum futures I concept drawing



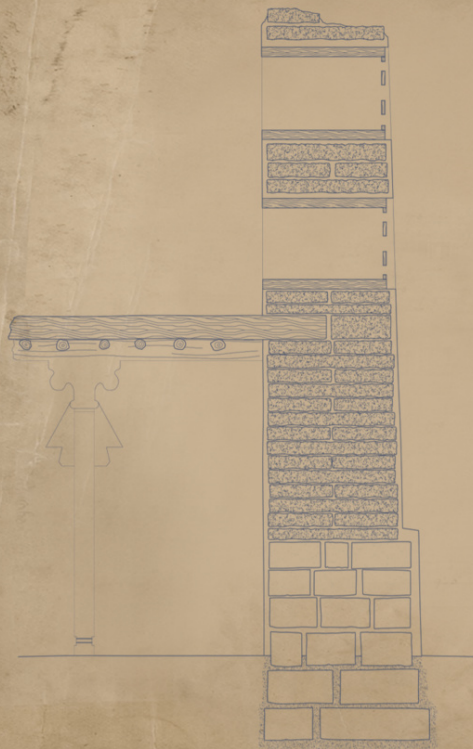
sargassum futures I the community



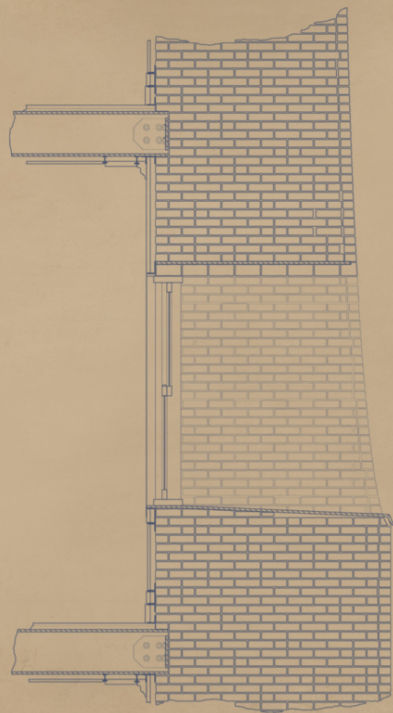
sargassum futures I carbon offset model



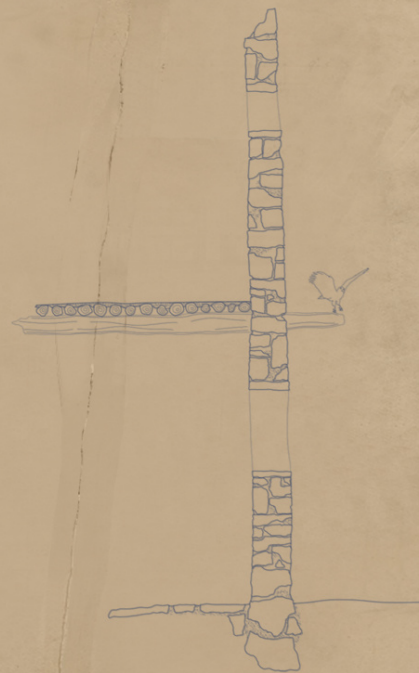
sargassum futures I community conceptual sketch



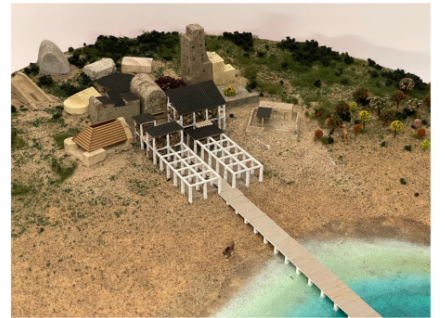
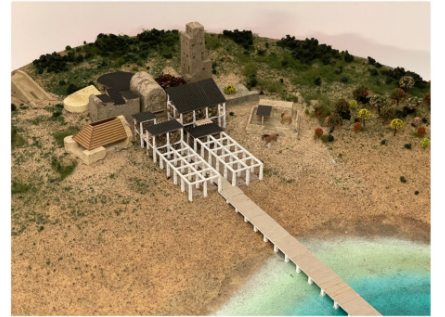
Albi bin Samayr House, Shikam, Yemen



Mansourah Block, Chicago



Balfour House, Mesa Verde, Colorado





sargassum futures | community drawing



sargassum futures | approach



sargassum futures I detail



sargassum futures I detail

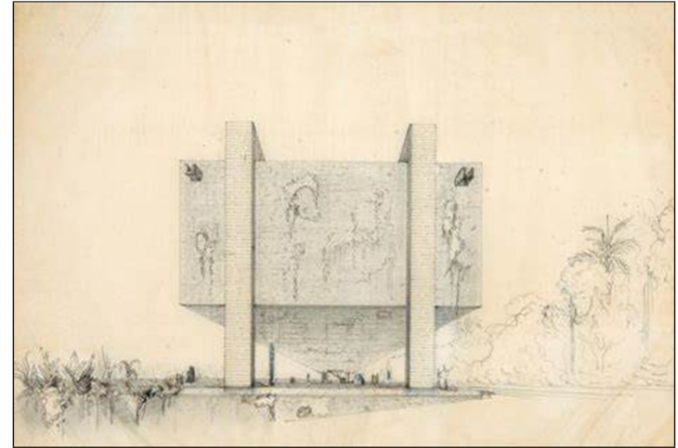




TOWARDS A TRANS-SPECIES ARCHITECTURE

Extreme Design I Fall 2022
Professor: Mark Wigley

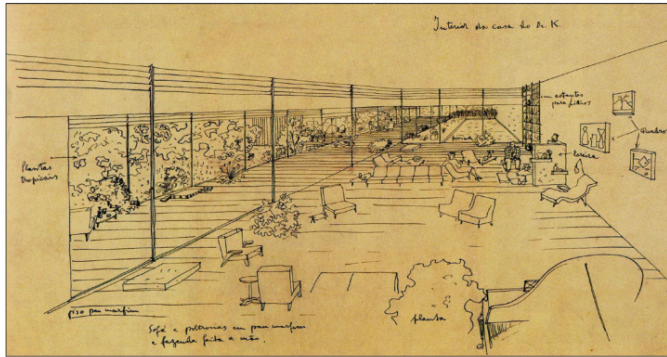
This course examines the responsibility to challenge conventional assumptions about architecture. It views architecture as a form of inclusive hospitality that welcomes humans, animals, plants, insects, bacteria, and technologies. The work of Lina Bo Bardi serves as the primary case study for the course. Several of Bo's projects were analyzed from the perspective of trans-species hospitality, with a comprehensive investigation of all aspects of their design. The course also explores Bo's writing, editing, drawing, curation, teaching, furniture, stage set, and exhibition design. The study culminated into a 10 point manifesto that elaborated architecture trans species hospitality with regards to Lina Bo Bardi, out of which select points have been displayed in this portfolio.



Lina Bo Bardi

ARCHITECTURE MUST SEEM LIKE IT WAS ALWAYS THERE

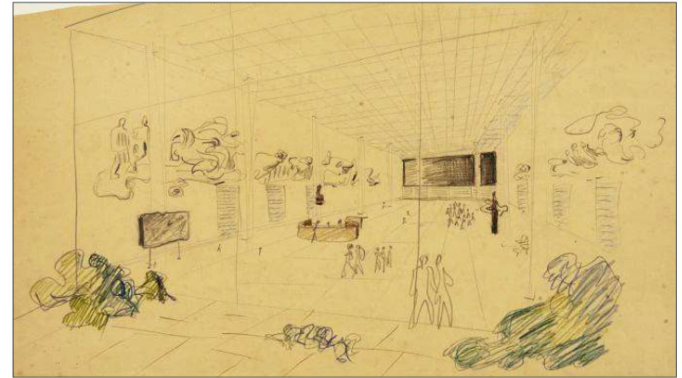
A great deal of effort must go into making it seem like no work has been done in making architecture belong in its surroundings. It must feel like the building has always been there. Like a host to its environment and all things alive and inanimate. If the work is not a success in literal reading, that is the intention of permanence and sacredness. This allows a building to gain an archaeological quality, and is thus a directed, political act.



Lina Bo Bardi

WHAT IS MOST SURE MAY BE REPRESENTED THE LEAST

Instead, that which raises questions must be explored and discussed extensively. This allows an entry into new, polemical and powerful ideas involving trans species hospitality. If the ceiling in a drawing is most obvious, it may require no effort in drawing. If sculptures, chairs, isles and plants are in dialogue, they should be represented with clarity and precision.



Lina Bo Bardi

THE HUMAN FIGURE IS NOT A CONSTANT

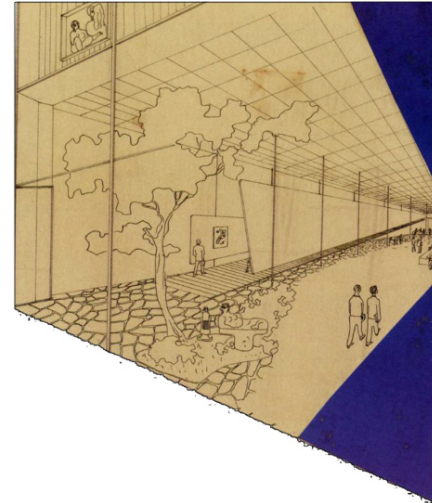
It can be ungendered, irregular, irrepresentable. The human body may be special needs, shy and away from the crowd. It may want to blend in with the plants and the art hanging on the wall, or become indiscernible amongst elements of the interior space. At times, not describing a human figure in our representations is the most generous inclusion one can offer



Lina Bo Bardi

BE LIKE A CHILD IN EMBRACING THE BEAUTY OF THE NON-HUMAN WORLD

Plants and insects are like us. They are interchangeable with us. They have faces, names, characters. We could imagine them having feet like ours, with glasses on their eyes. The clouds, the plants and people, are all so similar. Be free in befriending them through drawing and observations as they occupy our world with the same ownership as us. Embrace innocence in thinking of them living beneath our homes.



Lina Bo Bardi

ARCHITECTURE MUST DISPLAY FREEDOM

It can exist as a suspended, transparent and ever-changing world that opposes the opaque envelope. Light and air too, are citizens of space. What is out can be interlaced with the in. The window on the elevation can be interchangeable with a painting. The space may display opposite geometries of rigid grids and playful patterns.



Lina Bo Bardi

PLANTS, LIKE HUMANS, ARE PERFORMER IN ARCHITECTURE

In the sacred space of theater, a plant can be the actor and the observer. It can be part of the audience applauding performances or silently occupy a corner in the background. Like the lights, railings and stairs it may always be there even when there is no human around. Like a street, interior architecture can become a passageway with trees as constant companions.



Lina Bo Bardi

AN ARCHITECTURE OF RESPECT SHOULD EVENTUALLY DIMINISH ITSELF

A building can become dystopian or post-human as time progresses. It can become a ruin which originally was around a tree but later becomes occupied by its roots and foliage. To become truly hospitable, it may be designed for a time after humans, and become fully one with its surroundings. An architect can act like an acupuncturist in making careful, calculated insertions on the earth. They can add the removal of their architecture in their design thinking.

SHADOW AND SHADOW

Architecture Apropos Art | Fall 2022
Critics: Steven Holl and Dimitra Tschrelia

The seminar focused on Art's relation to Architecture in the works of Architects of the 21st century. Aldo Rossi's architecture and painting were studied through analytical exercises that highlighted the importance of shadow, and the abstract, emotional and metaphysical qualities that it carried in Rossi's work.

'His work reenacts the mysterious journey whereby architecture transforms absence into presence, emanating emotions and shadows', Cite spring 1990

Correlations were examined between his painting style and his inspirations including Chirico, Morandi and Sironi in terms of their use of shadow that inspired Rossi at a personal and socio-political scales.

Rossi's shadows represent a cultural condition irrevocably altered by the events of the Second World War, the mass destruction, the Holocaust, and the atomic bomb, Stephen Kite, Shadow Makers

In Rossi's drawings the shadows themselves ... take on material solidity. ... [They] become another figure. In their highly exaggerated, pitch-black shadow they assume a graphic presence that overpowers the actual literal shape of the building. As such they become objects which cannot share the same qualities as the buildings. ... They become the negative image of positive reality, Peter Eisenman

The use of dramatic shadows in Rossi's drawings was not for the purpose of articulating profiles, but rather to juxtapose the explicitly abstract/atemporal types with a sign for temporality/history, Peter Carl, Type, Field, Culture, Praxis, 2011



shadow and shadow | observing rossi's shadow



shadow and shadow I inspiration montage



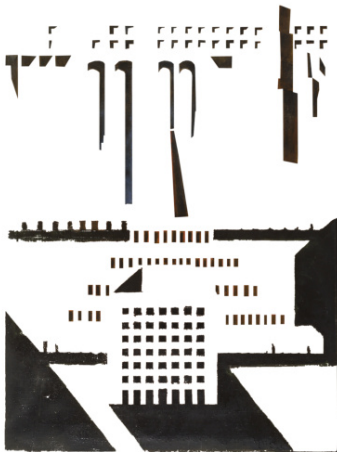
shadow and shadow I chirico shadow study



shadow and shadow I aldo rossi shadow study

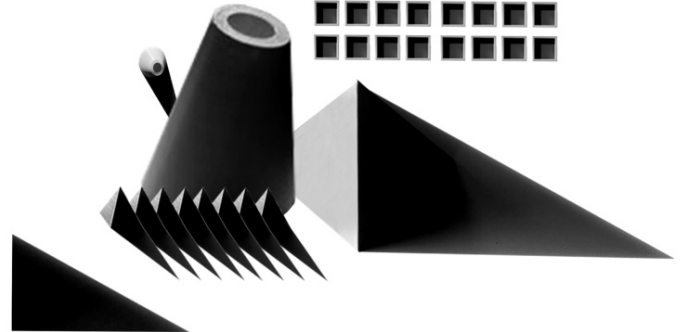


shadow and shadow II aldo rossi shadow study

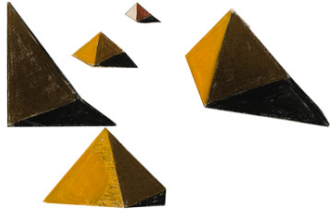
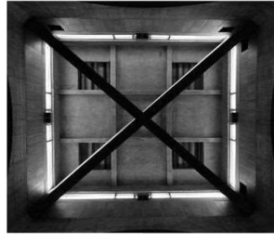




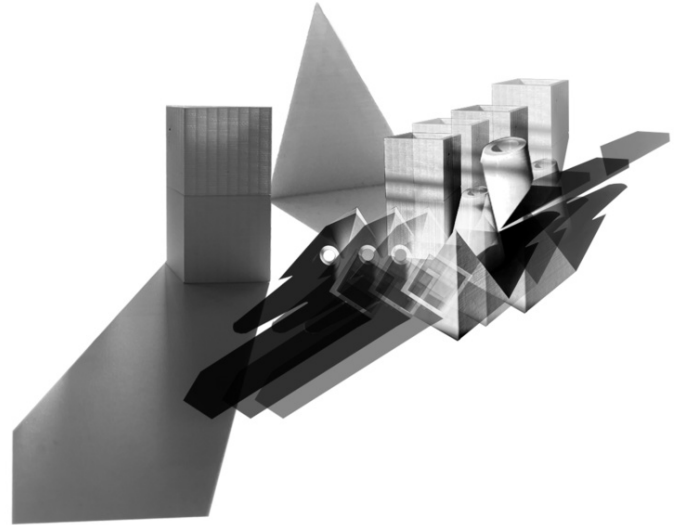
shadow and shadow I aldo rossi shadow study



shadow and shadow I photographic study



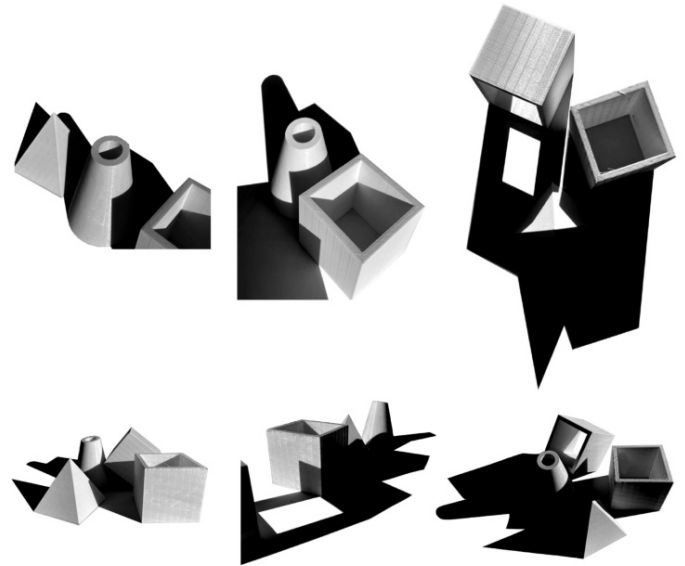
shadow and shadow I louis kahn and aldo rossi comparison



shadow and shadow I photographic study



shadow and shadow I aldo rossi shadow extraction



shadow and shadow I shadow investigations

DECOLONIZING THE MONUMENT: MINARETS, KILNS & BONDED LABOR

Decolonizing the Architectural Imagination | Fall 2022
Professor: Ijlal Muzaffar

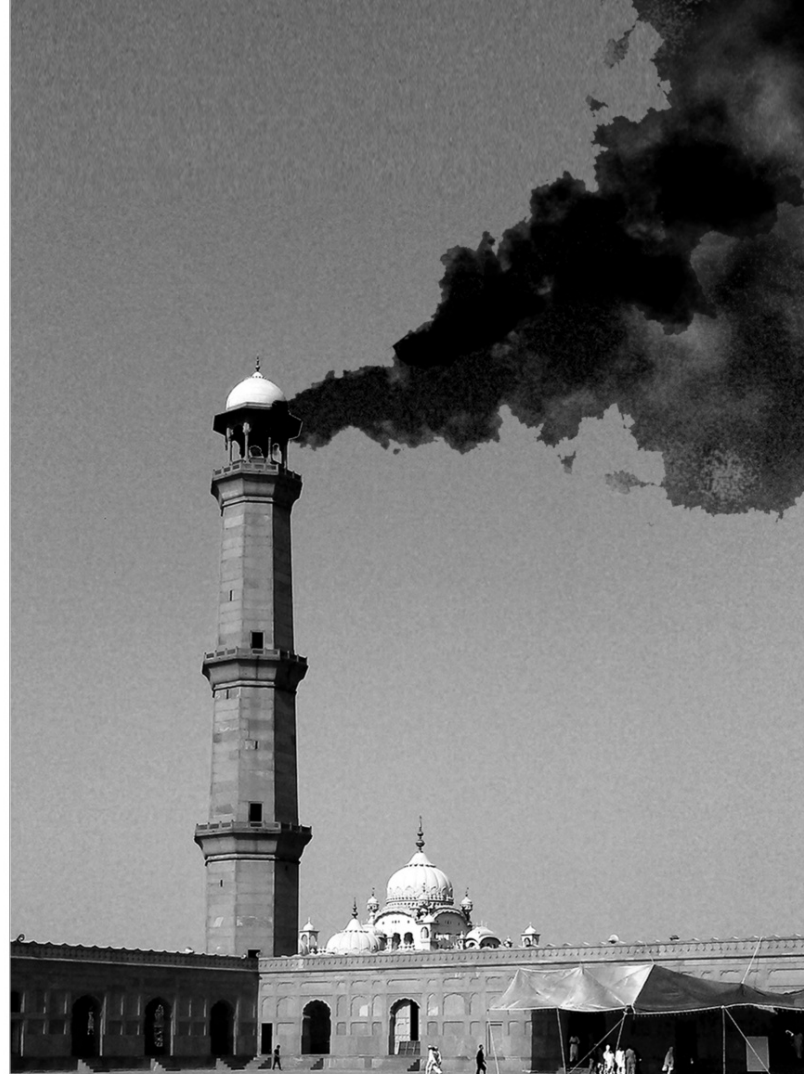
The historical monument, when painted over by sacredness, becomes a mark of undeniable reverence for its inheritors. Its present may be attributed to a lost, glorious past where historical rulers and their subjects achieved excellence in all possible endeavors. Often the awe of owning such monuments in modern times shadows the cruelty of regimes of power that realized them. They use religious symbology to permanently embody the political might of their creators, washing over the oppressive mechanisms of royal rule.

The Great Badshahi Mosque in Lahore, Pakistan, with four soaring outer minarets restored in impeccable detail and consistency, dominates the architectural history of the south asian region. The entrance to the sophisticated structure is aligned with the gate of the Lahore Fort, the entranceway of the king and his entourage. It was exclusive to the taste and decisions of the king when made, but is in the hands of the democratic government today. Its minarets are printed on Pakistani currency, and are used recurrently in various forms of media as an identity of the Islamic Republic. Its website claims it as an ambassadorial monument of peace <https://badshahimosque.com>. Labels like 'largest' and 'oldest' are keywords in its description. High end rooftop restaurants line its outer boundary, looking into its immense courtyard from a vantage point which is exclusive to those who can afford the fancy food and low-key nostalgic music. The exclusivity of the Grand mosque prevails to this day.

If we imagine the quantity of bricks required to make a mosque for 50,000 worshippers, the brick making stations, the labor recruited to create a consistent and repetitive construction module, who does it truly serve then ? Only 2 years were spent in constructing the iconic building. Even if we consider the architecture as a gift to the people, does it erase the imperial reasons for its creation? Would the king still have it built had he not been successful in military campaigns against rival rulers in the region? Is religion not used only as a means to give permanence to King Aurangzeb's own name for all time to come?

What would have happened had the unquestionable authority of the King and his ministers been challenged ? Would the bricks be of the same consistency and strength? Would the walls eventually become patched with cracks as they aged? Would we remember the lavish lives of rulers with the same reverence?

Here the minaret is a symbol of political power. It soars above, marks the boundaries of the great mosque and is visible from afar. It is used as a tower to announce the call for prayer. It is an essential functional element of the mosque. It is also an essential political tool to represent forms of power.



decolonizing the monument | minaret or chimney?

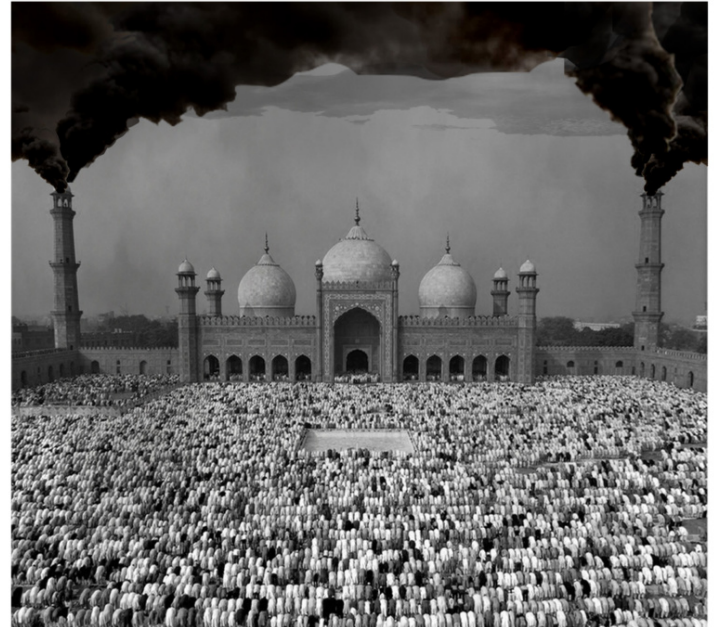
Bricks for modern day construction in Lahore are created in kilns or 'bhattas', where bonded labor is key in providing the construction sector with a low cost and reliable material. Poverty stricken families including women and children are drawn into bondage where they are enslaved to pay off a debt that is laced with hidden interest, sometimes keeping them trapped in this exploitative practice for indefinitely.

The chimney of the kiln is comparable to the minaret. It is made out of bricks that are produced by the appetite of the modern construction sector, which is controlled by those in power; politicians and landowners who allow the unregulated practice to continue. Even if there is a law to prevent bonded labor, only feeble attempts are made to eradicate it. It is simply not in the interest of providers and consumers of brick to stop this practice as that is the only way it is kept cheap and available. The unassuming upper middle class home in a gated society, the school, the university, the commercial building, the tastefully decorated drawing room, are all essentially made out of the same brick. The end users of the brick only get to see the product delivered to them in large trolleys and tractors. The situation of the kiln laborer is literally a distant thought to them, a world many kilometers away from urban areas and their dwellers, shrouded by isolated rural landscapes and distinct imaginations.

The minarets, while being visual markers were also meant to be scaled across hundreds of stairs to the top from where a 'muazzin', or the announcer would recite the invitation to prayer. Now that job is done through loudspeakers which eject sound that enters our bodies and becomes a part of our cognition. The kiln constantly spews toxic smoke that transforms the air, and inevitably enters our bodies and occupies our lungs to consume and corrupt our bodies. Labor was recruited to create the minaret and announce this prayer. Similarly, it is systematically bonded labor that ensures that clay modules are burnt thoroughly in kiln chimneys to create a structurally stable brick.

Children are made to suffer by the minar and the kiln. Their abuse is more evident in today's kiln, where they can be seen kneading soil and water to make a uniform dough which is placed in molds, lined in rows to dry under the sun and later baked in kilns with temperatures crossing 1000 degrees celsius. The minaret exercises its cruelty through vicarious means. Under the banner of religion, it shares a space with local 'madrassas', or schools of religious teaching. Here, young boys are sent from poor families who trust these institutions to groom their children in sacred teachings; the holy quran is taught and ways of pious living are conveyed. The young boys are also abused sexually by the same people who are entrusted with their education and grooming. This issue is rampant and widespread in these schools, and signifies the unchecked abuse of power associated with religious authority.

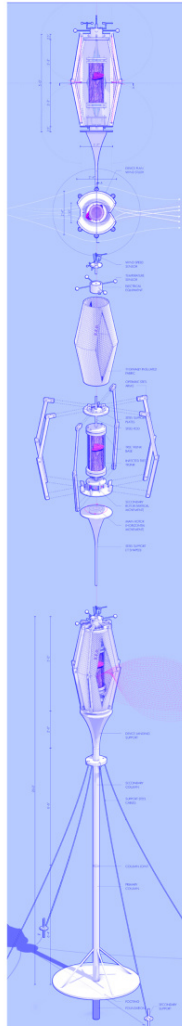
Through the lens of Georges Canguilhem's text 'Machine and Organism' the kiln chimney and the minaret can be likened to objects that live on in unexpected ways. They consume bodies of the poor and unrepresented. The minaret is a machine that bears political branding, and functions as both religious tool and imperial symbol. The kiln has an impact beyond only baking clay bricks. It is an agent of generational exploitation in addition to polluting the air that is breathed by the millionaire and the street beggar.



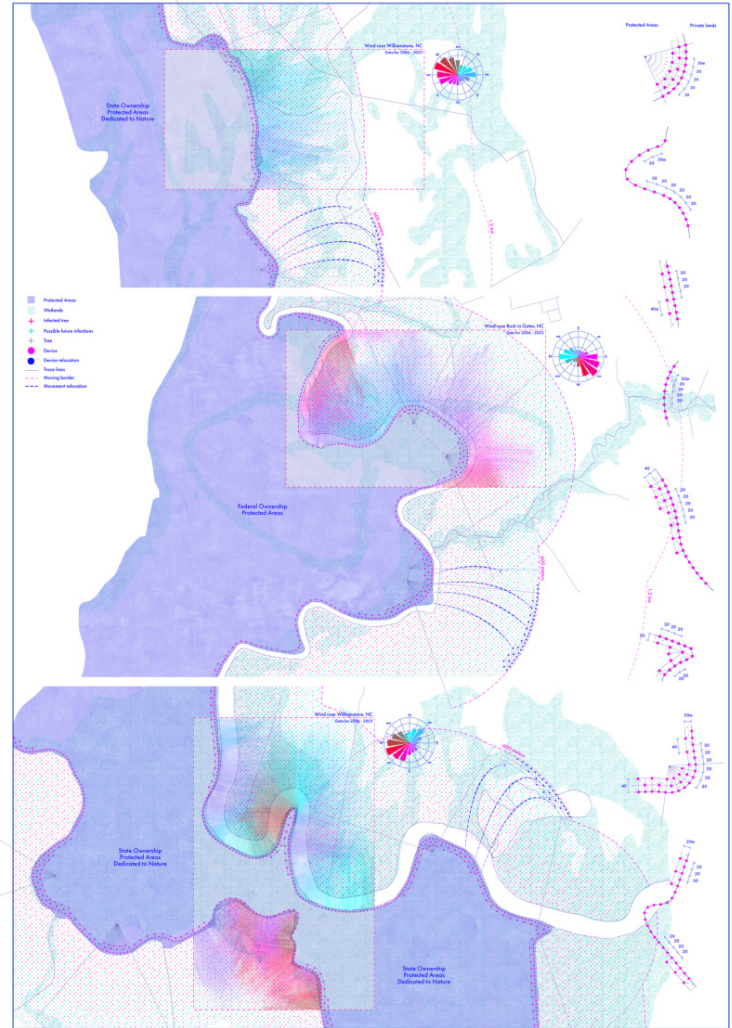
An autonomous device placed 25 feet above the ground carries a tree trunk with the fruit of the red heart fungus from where it can open and rotate based on wind directions and climate. The infectious spores are released at the level below the branches of pine trees, maximizing the potential of fungal spreading into tree sap through cracks in the bark.

The strategy map analyzes what a healthy infection could be like within different locations and border conditions using multiple combinations of networks and devices depending on the covered area. The selected areas show hypothetical scenarios of spreading through the landscape, using methods that escape detection by the human eye over a period of time.

In a future scenario, new protected areas under the Endangered Species Act could allow us to relocate the devices along the new borders until a desired area has been reclaimed across North Carolina.



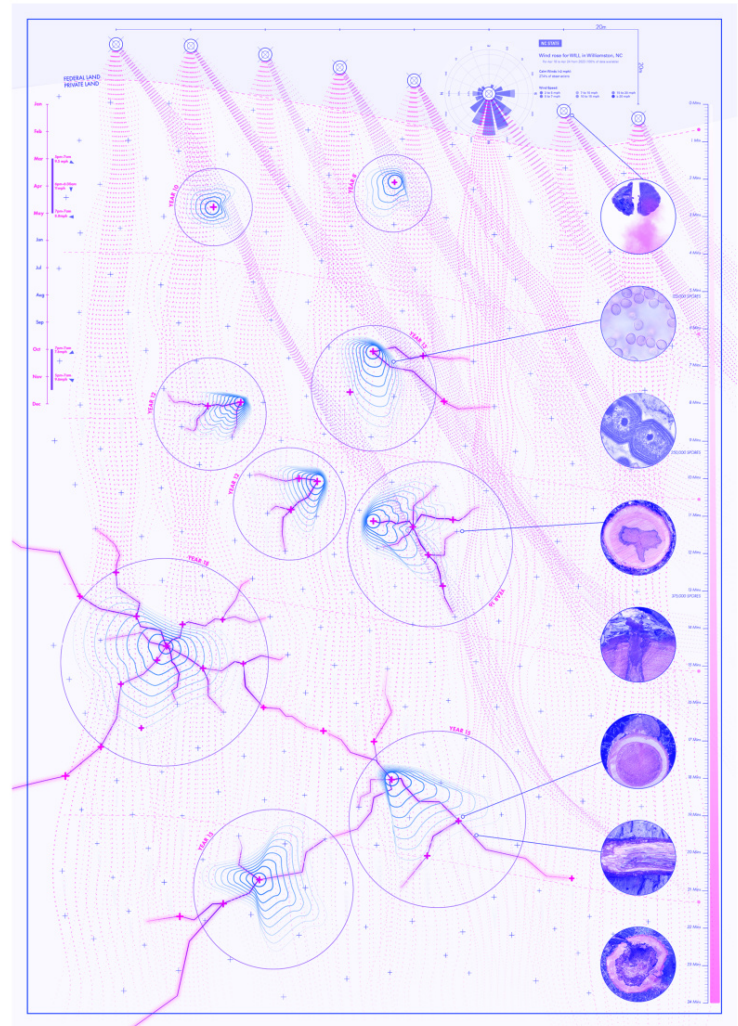
infectious borders I device detail



infectious borders I strategy map

A system of devices is placed along the border that releases spores over the years with varying wind directions and speeds. Around 1 million spores will spread over 30 minutes, affecting 20% of trees that will themselves become capable of releasing spores within a decade. There are 5 months over the year which are most appropriate to release the spores with wind speeds ranging between 7-20 mph. The winds follow different directions, ensuring that the spread reaches a larger number of trees over a 200 meter distance. The hours of the night are most effective as the sun does not interfere with wind movement.

When the spores are released, male and female cells enter the crack of the pine trees resulting in mitosis. The fungus grows inside the tree, invisible for many years and invulnerable to any pesticides used by Envivia. The spores begin to consume the sap and branch out into a fruit that resembles part of the tree. This fruit would allow the fungus to further spread its spores. Around year 15 the fungus would also start to spread through the roots of the tree, effecting nearby pines and increasing infection.



infectious borders | spreading map

INTELLIGENT GROWTH

THE BANYAN TREE

Nervous systems I Spring 2023
Professor: Lindy Roy

The explorations in this work evolve around the great banyan tree as a nervously conscious process that arrives to an environment and strategically expands its network, slowly occupying the land around it through autonomous decisions and crisis aversion. Over many years, the parasitic seed of the banyan becomes a forste of its own, contsantly growing and planning to survive.

The drawings highlight the life cycle of the banyan tree from a nervous and architectural perspective before precisely detailing the process of anastomosis, an early phase of the banyan's growth where it wraps a host tree with roots in an interlocked lattice that move downward along gravity in search of nutrients and water from the soil.



Banyan tree nervous lifecycle



EPIPHYTE

Strangler Fig
They grow from seeds that land on other trees



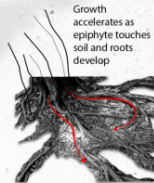
DOWNWARD GROWTH

Prop roots start to reach to the ground clinging to the host trunk

They form a living lattice around the host trunk which may eventually kill the host tree by crushing sap or preventing photosynthesis



ANASTOMOZIS



Electromagnetic threshold initiates root spread on ground

Growth accelerates as epiphyte touches soil and roots develop



As branches grow outward in the air, the tree develops a new strategy by creating **AERIAL ROOTS**

DECISIONS ARE MADE TO AVOID CRISIS!
A completely new system is created: from scratch, an entirely different organization of the organism



Aerial Roots Become Stills

The aerial roots touch the ground, thicken and become structural trunks with their own systems of water and nutrient absorption

Downward movement stops as roots sustain the upper branch

A Great Mutualism



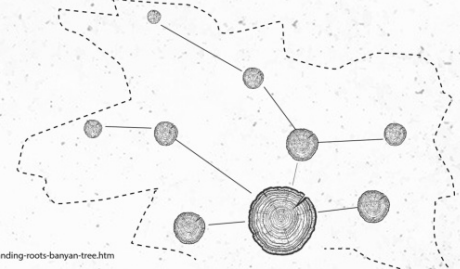
Fig Wasp is necessary for expansion



The largest banyan tree can be found growing in a botanical garden near Kolkata occupies the better part of five acres, and is more than 250 years old.



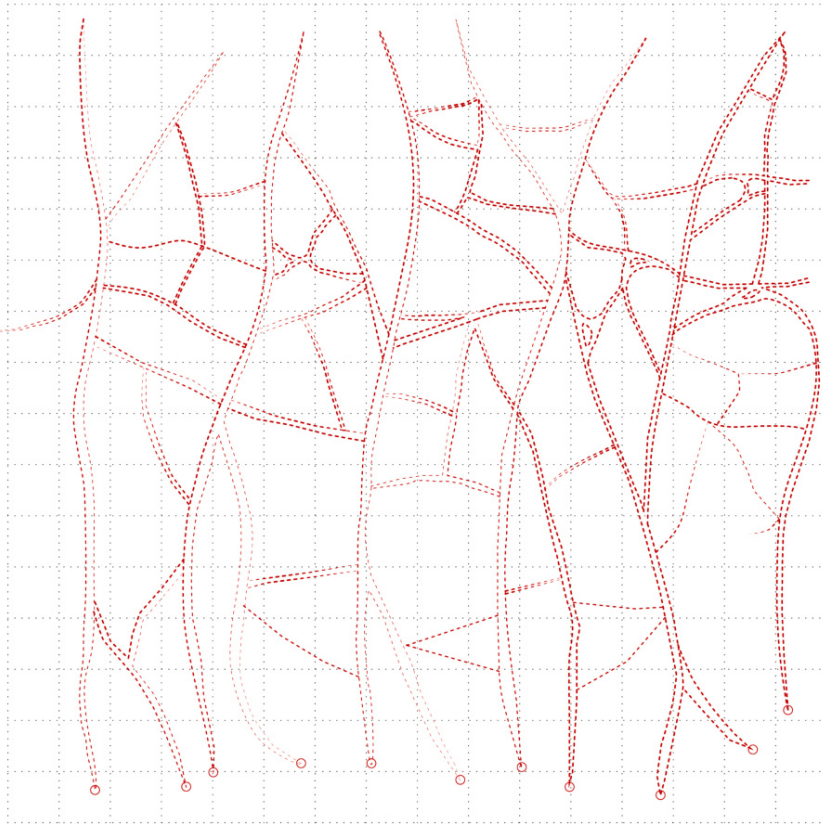
Expansion into a full grove. The tree expands across the territory through multiple trunks. Known as the walking tree due to expanding trunks



Anastomosis: Drawings precisely specifying the state of epiphyte root around the host tree in response to the stimulus of gravity.

PHOTOSYNTHESIS Upward roots react opposite to gravity to seek the sun

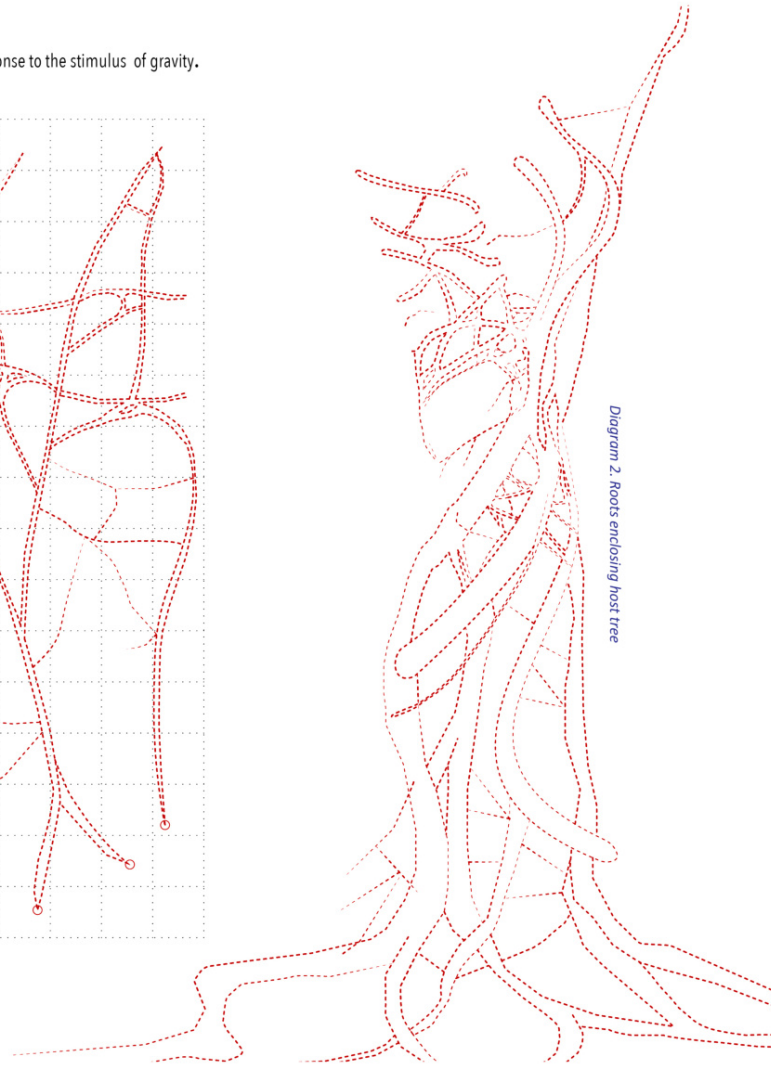
Diagram 1. Unwrapped root Drawing



GRAVITY Root tips sense gravity to move towards the ground ○

Diagram 1 is a study of the roots unwrapped to observe the lattice-like growth
Diagram 2 shows the roots as they grow around a host trunk

Diagram 2. Roots enclosing host tree



GOO

The outside in project | Spring 2023

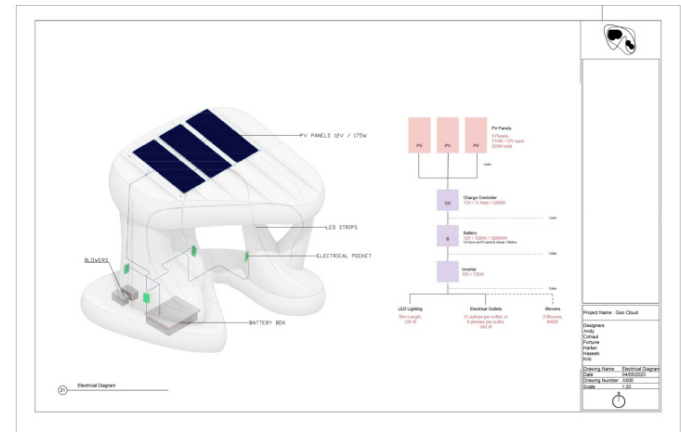
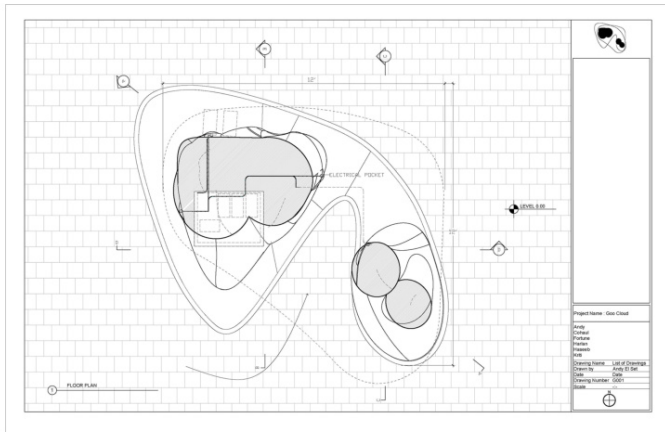
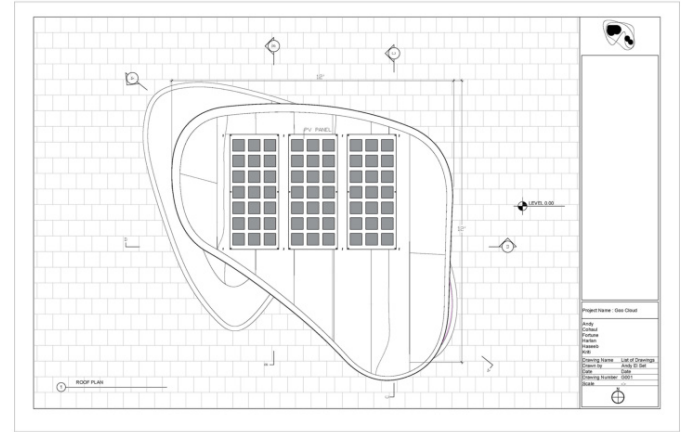
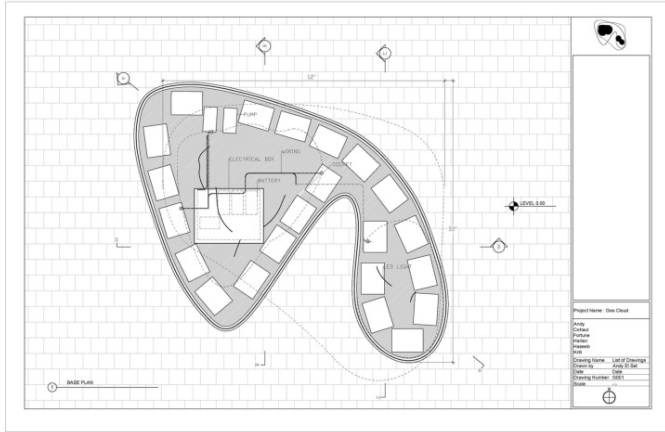
Critics: Galia Solomonoff & Laurie Hawkinson

In collaboration with Cohaul Chen, Kriti Shivagunde, Fortune,
Harlan Law & Andy El Set

Goo is a sustainable, off the grid, inflatable phone charging station that runs on solar power. It was designed to initiate interaction and occupation by people moving around it. It is a result of research, documentation, engineering and informed speculation through collaboration between architects, engineers and solar consultants.

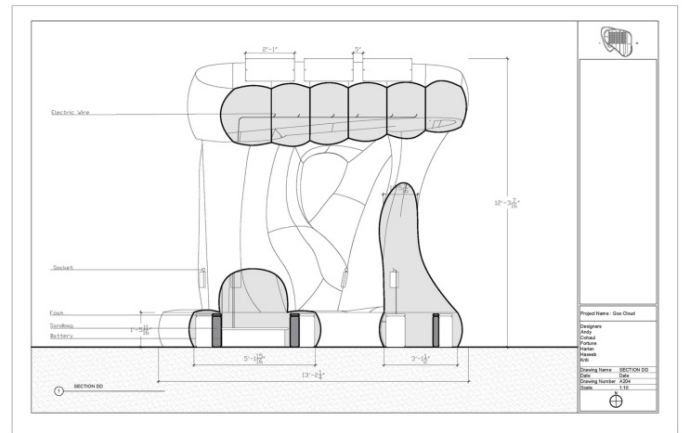
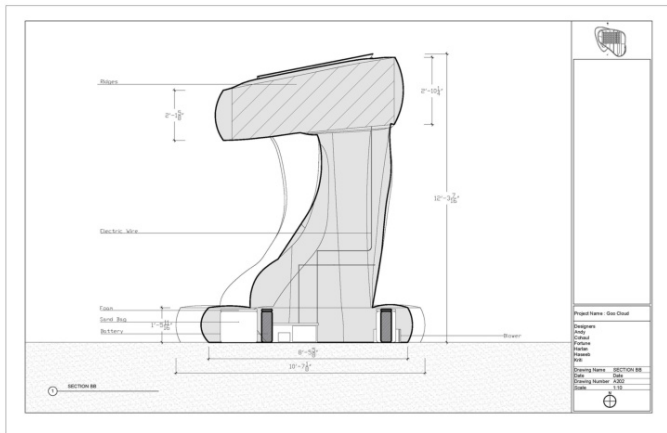
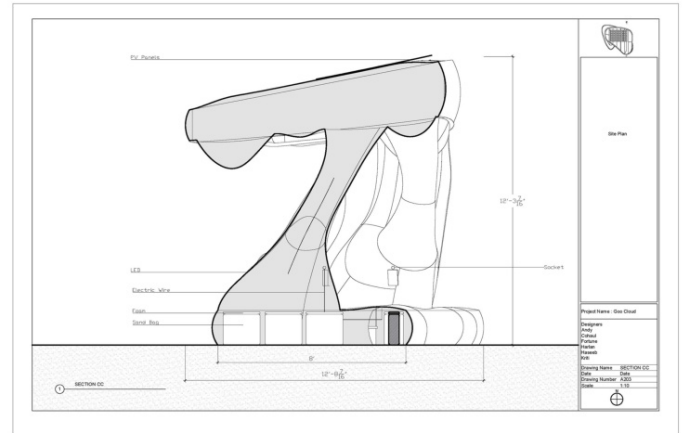
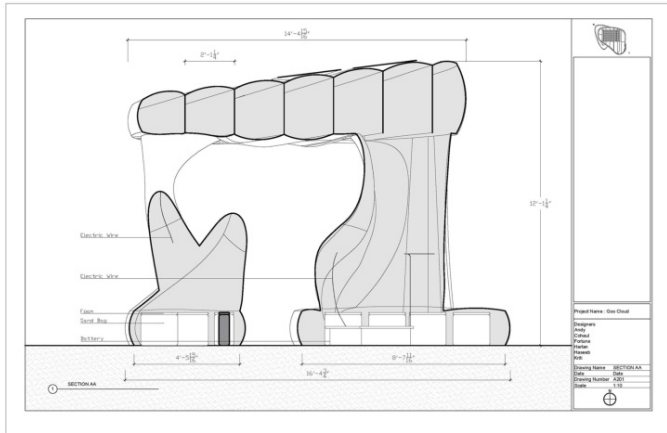
Goo's form is conceived to generate interest from all sides. Placed on an elevated level, it is visible and accessible from various points. The white fabric helps the form generate a dialogue with the monumental built volumes of the university campus. Goo allows you to relax against its thick air-filled columns or sit briefly under its thick canopy to catch the afternoon sun.





goo I base plan I floor plan

goo I roof plan I electrical diagram





goo I construction process

goo I construction process





syed haseeb amjad