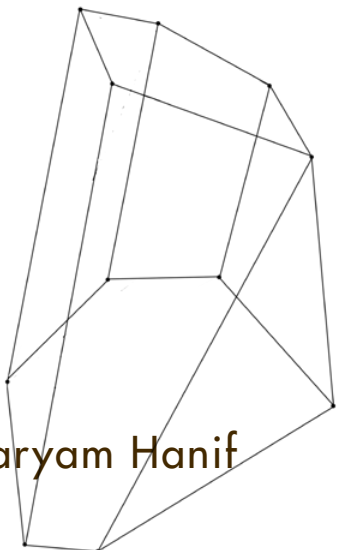
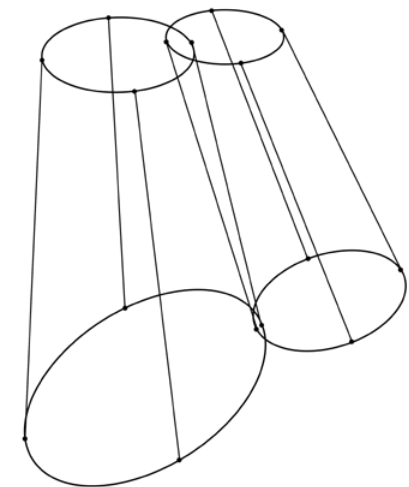
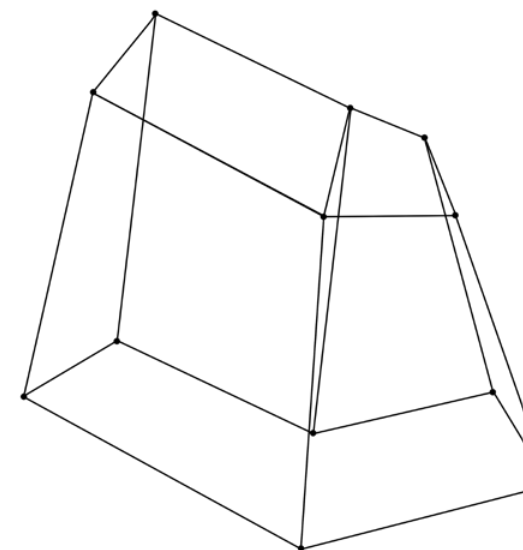
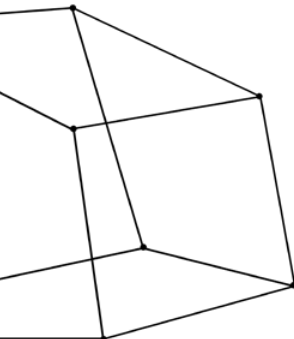
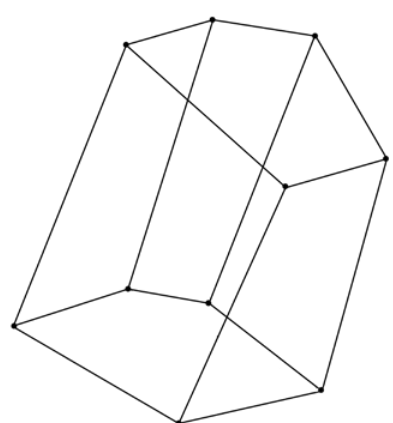
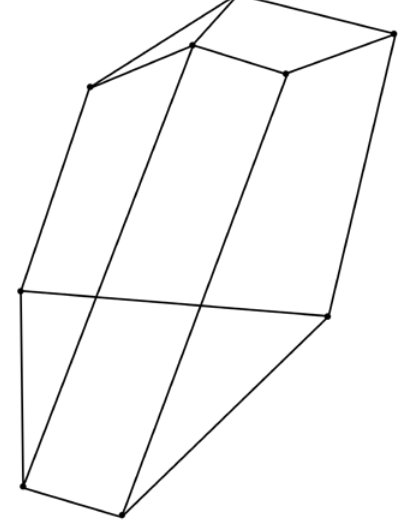
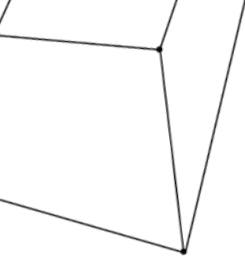


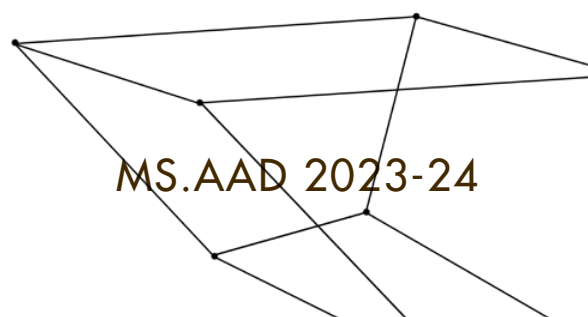
Portfolio



Maryam Hanif

Columbia GSAPP

MS.AAD 2023-24



During my time at Columbia GSAPP, I refined my approach to design by incorporating a transcalar methodology to comprehend complex issues through understanding their multi-layered complexities and the networks of actors involved.

As part of the discourse here, I gained experience in transcalar representation of highly intricate projects across different scales and cultural contexts. This involved analyzing their interrelationships with various aspects of society, culture and nature. These experiences have shaped my interests to focus on the political dimensions of architecture and the negotiations underlying events and cases that produce sets of images expressing contemporary culture.

With this booklet, my intention is to summarize the implied narratives in the design research I developed at Columbia between 2023 and 2024, rather than simply listing design projects. My ultimate personal interests have shifted from pursuing pure design towards a more complex, transcalar approach that deeply engages with understanding cultural, social and environmental issues by accounting for the different variables that shape them.

NYCDMX: Migration, Adaptation and Local Transgressions **(06-23)**

Food For Thought: Empowering Rio's Plate and People **(24-33)**

Towards a Trans-species Architecture: A Manifesto **(34-37)**

Seminar of Section **(38-39)**

Phragmites Australis: Reed or Weed? **(40-45)**

Post-colonial Architecture and Cultural Identity: Arguments **(46-51)**

Flood-resistant Housing: Construction Ecologies in the Anthropocene **(52-69)**

BIOS-3: Dreaming of Mars: Transclarities **(70-71)**

Translation: Post-digital Materiality **(72-83)**

NYCDMX: Migration, Adaptation and Local Transgressions

Critic: Rozana Monteil and Thomas De Moncheux

Fall '23





NYCDMX STUDIO

NYCDMX STUDIO



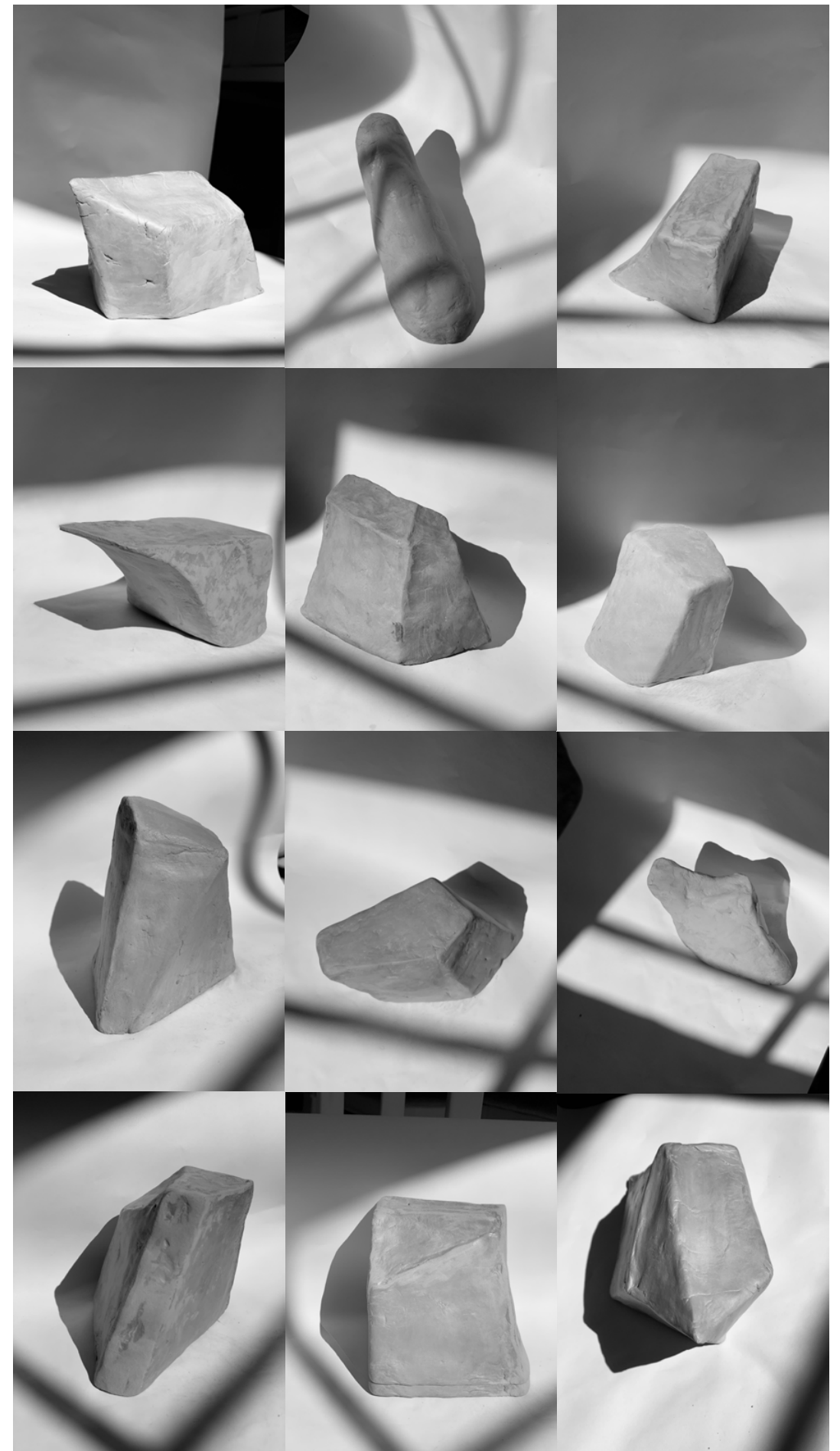
T P E I T O

NYCDMX, a state of mind that emerges when we consider NYC and CDMX in conceptual adjacency and immediacy, imagining racial continuities and communities and common unities, between two cities.

Examining the lively storefronts of mexican businesses on 116th street as conceptual portals to correspodng geographies in Mexico City we experienced a transformative journey, mapping the movements and trying to bridge the gaps between the two cities by occupying deep thresholds and habitable boundaries. Delving into our own imaginations to create "backstory" interventions, envisioning conceptual and critical conditions projected back into the chosen sites in Mexico City that correlate with selected storefront in New York City.

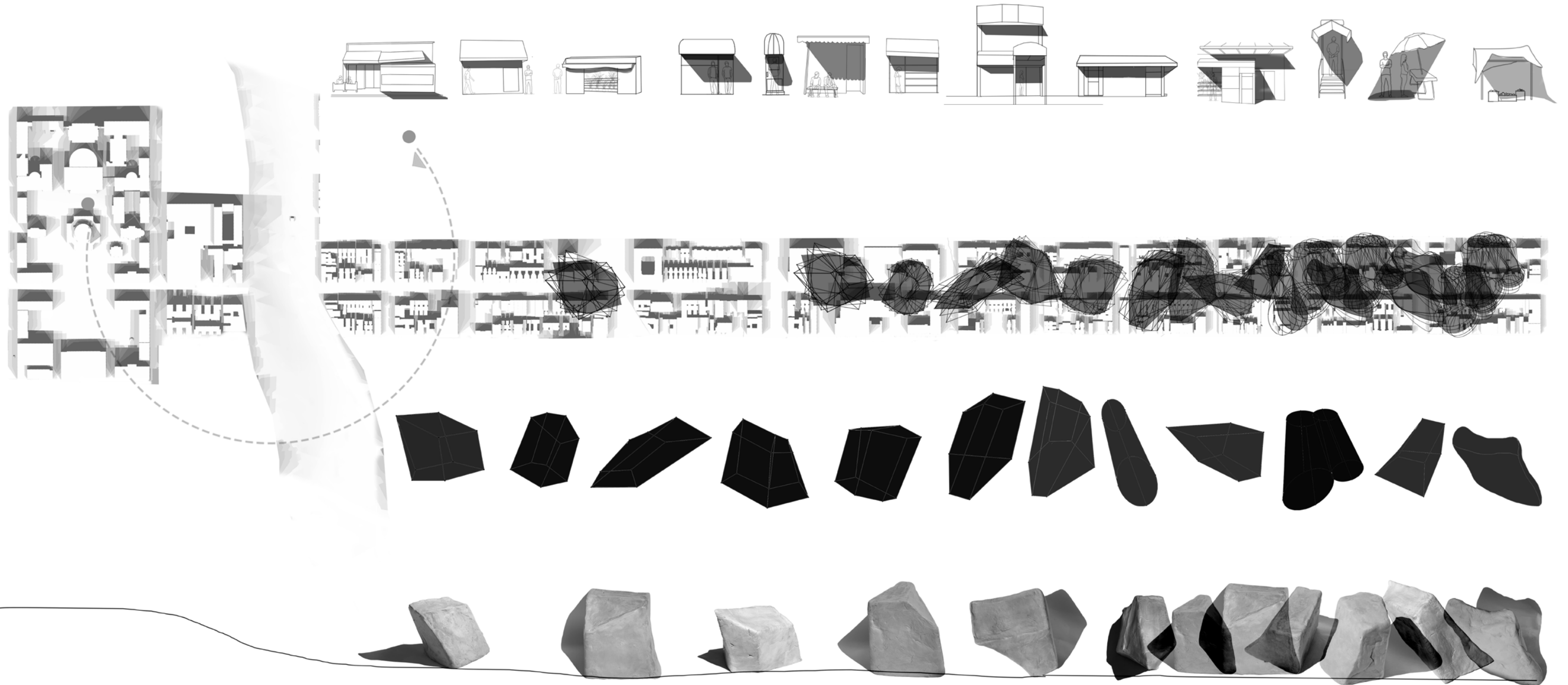
Through my project I aimed to stimulate the senses, evoke emotions, provoke thoughts about human experience in these sprawling urban landscapes.





Documenting the journey on the 116th street, focusing on Little Mexico in East Harlem I focused on the canopies and the shadows they created on the street which acted as a threshold space for pedestrians and residents of the area where they pause, rest, observe or just pass through in their daily lives. These canopies become more apparent as you traverse closer to Little Mexico.

As the day transforms into twilight in this transient realm, these canopies take a life of their own. They are not merely shelters from the sun or rain; they told tales of migration, adaptation and the harmonious blending of traditions. The vendors and patrons mingle in close quarters engaging in lively conversations.



LITTLE MEXICO, NYC
 40.7957° N, 73.9389° W
 3.00 pm, 15 September, 2023





TEPITO, CDMX
 19.4462° N, 99.1283° W
 3.00 pm, 15 September, 2023



As I strolled down the vibrant streets of Little Mexico, I felt like I had been transported to another world. The air was alive with the melodies of mariachi music, scents of street food and colorful murals that adorned the buildings seemed to tell stories of a distant land.

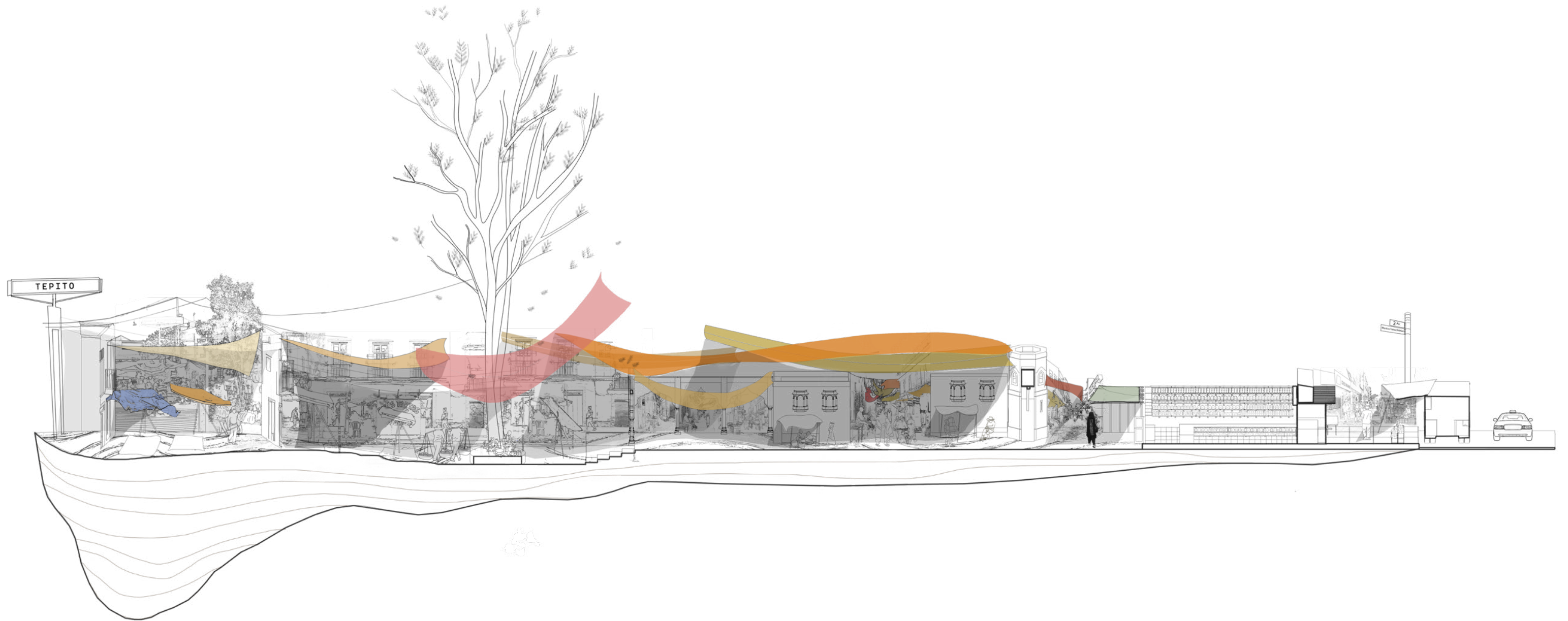
The sun beat down, and I felt a thirst creeping in, That's when I spotted it, a bodega that was selling fresh juice. After enjoying the refreshing juice, I had the sudden urge to venture into this bodega that looked like a whole street market had been squeezed into this tiny space.

It led to a narrow path behind the counter, not having the faintest idea where it leads to and nowhere I stand in front of a giant rugged wall with a doorway and emerged on the other side, as if I had walked through a portal, into another dimension. My eyes and my brain took a moment to adjust. The sights and sounds awakened my senses, it all felt familiar. The streets in front of me appear to have evolved over time like nature, it felt as if I was

in a labyrinth. I walked towards the only thing I could make sense of, the sounds and the scents. Somehow all the streets looked the same but unique in their own way, every street had a character of its own as if the different people who walked them left their imprint in their wake.

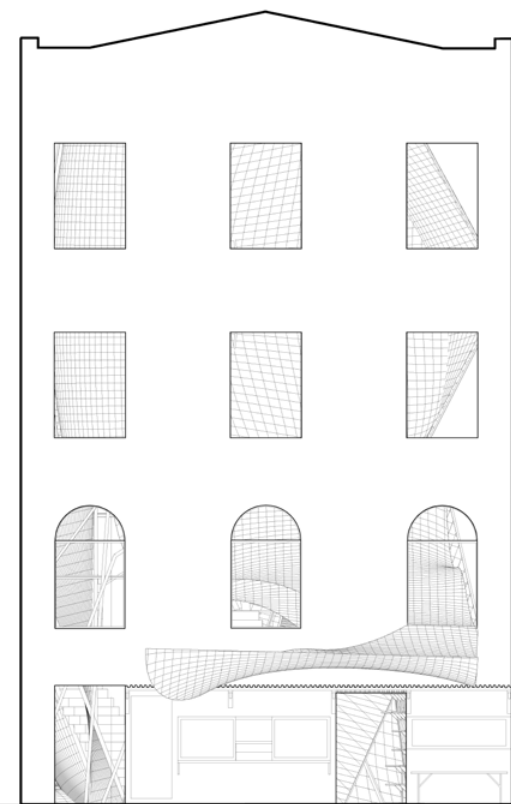
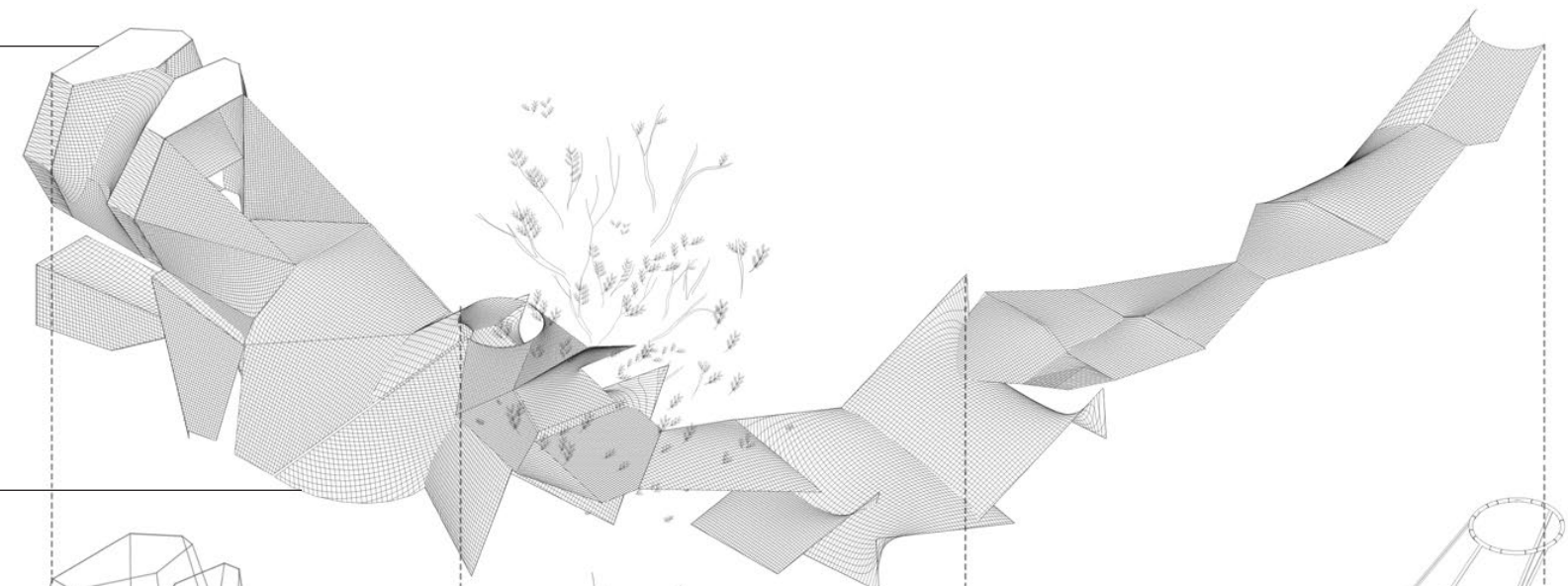
As I followed the sounds I ended up in the middle of a bazaar in the Walled City of Lahore: The space was filled with aromas of every kind of food you could imagine, you could feel the burning sensation of the spices in the air and sweetness of the sweet shops. Overhead, strings of lanterns hung between the canopies, their warm, golden glow illuminating the streets below. These lanterns transformed the space into a theatrical stage, where musicians, dancers, and street performers took center stage. As one ventured further into the heart of the in-between space, the canopies opened up into a larger, more public realm. Here, under tall and lush honeylocust tree, the interplay of light and shadows took on a different dimension. The canopies created pockets of illumination in the gathering dusk, where people congregated to savor their meals, engage in lively conversations, and admire the wares of the vendors.

As the day transformed into twilight in this transient realm, the canopies took on a life of their own, shaping the very essence of its surroundings. These fabric canopies, suspended above the alleyways, were not merely shelters from the sun or rain; they told tales of migration, adaptation, and the harmonious blending of traditions.

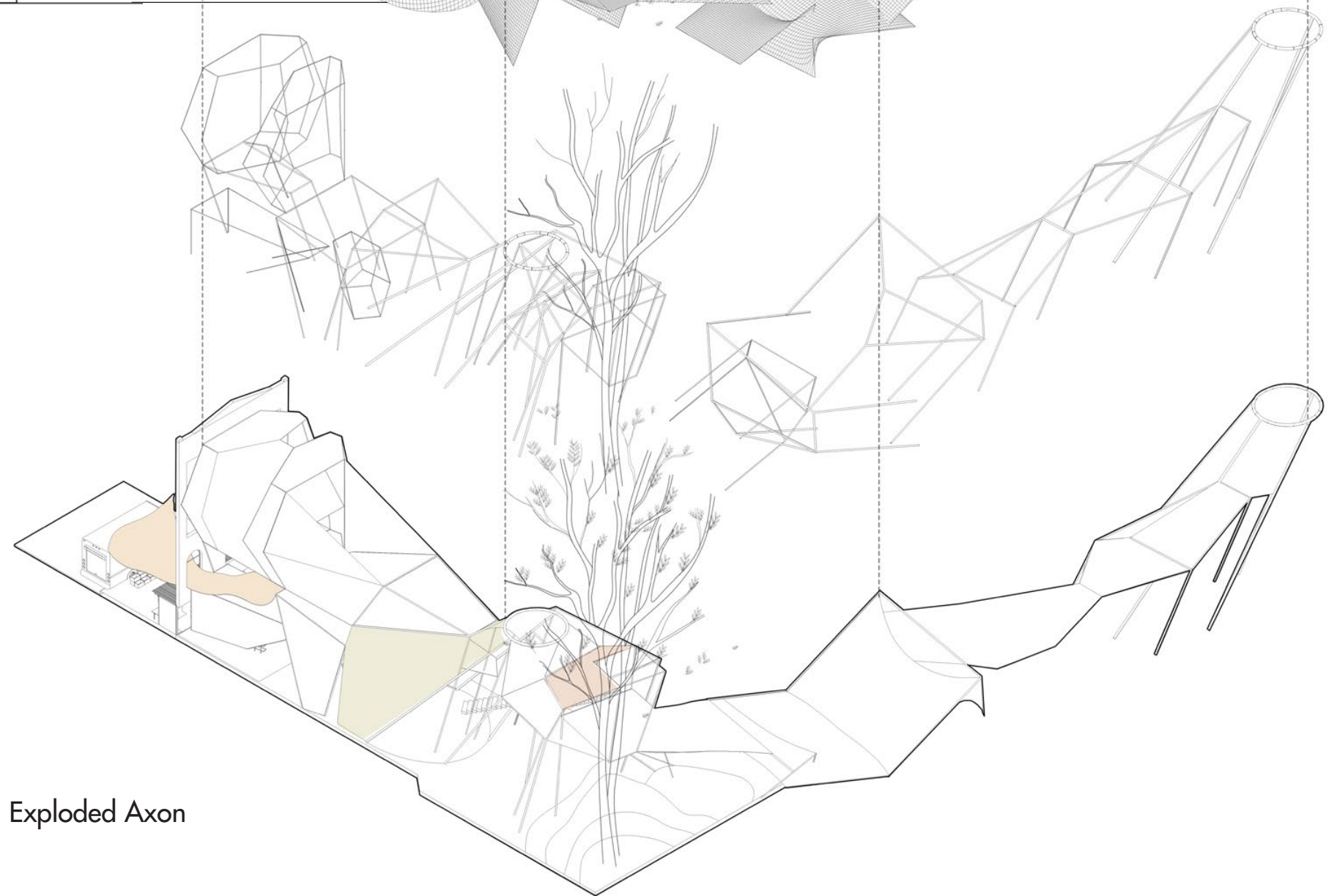




Perspective Section



Store Front



Exploded Axon



Frontal Axon





Food For Thought: Empowering Rio's Plate and People

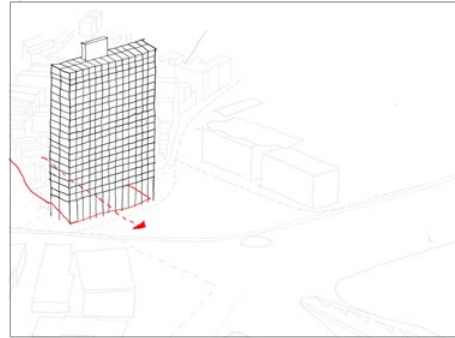
Critic: Galia Solomonoff
Spring '24

Collaborators: Stuti Murarka and Harshini Ashok

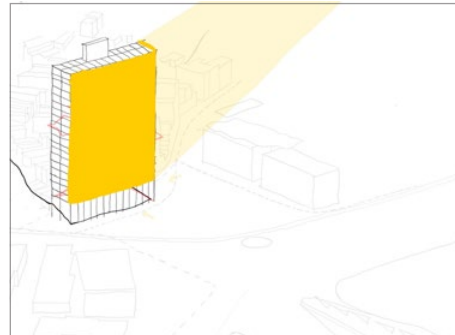
The design addresses the critical issue of food insecurity in Rio de Janeiro. By integrating a food bank with urban agriculture, the project fosters self-reliance within the community. Recognizing the limitations of government policies and import reliance, food banks within urban agriculture foster a self-sufficient community. The concept draws inspiration from the local diet and utilizes circular water management systems, potentially incorporating seawater desalination. Educational programs within the building focus on vertical and peri-urban farming techniques, empowering residents to grow their own food.

The design itself acts as a bridge, connecting the Morro with the waterfront and public plaza. The cylindrical form maximizes farmable surface area, resembling traditional grain silos, while public walkways weave through planted zones. This welcoming and open structure offers subsidized food and food bank services, transforming the building into a learning environment for residents to experiment with new crops, share knowledge, and access subsidized food markets.

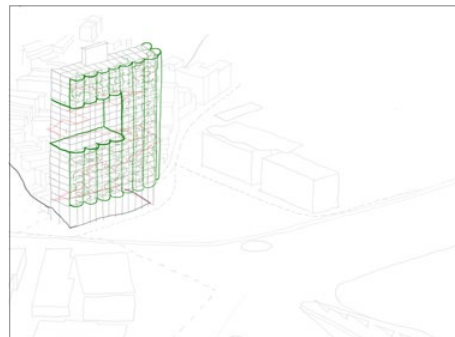
This public forum extends into the programs, housing a community kitchen, research labs, co-working spaces, and a marketplace. By educating users on urban farming techniques and fostering collaboration, this design proposal aims to cultivate a more resilient and food-secure future not just for residents but for the entire community.



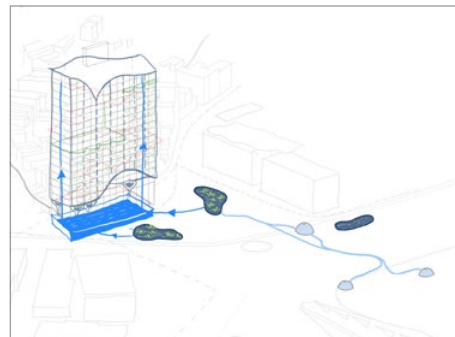
Extend the morro into anoite, to connect the community with the urban plaza



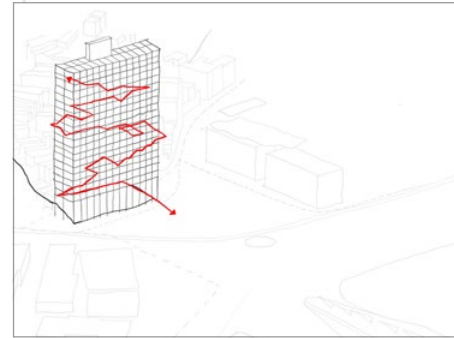
Sun study revealed which part gets the most sunlight to aid farming



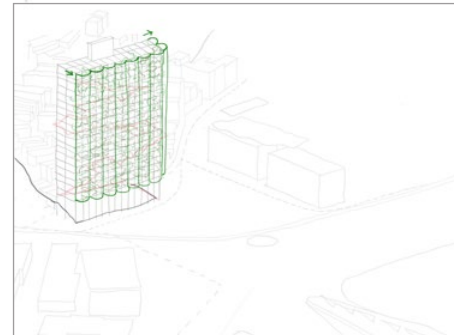
The heart of the building houses community engagement, kitchens and shared activities



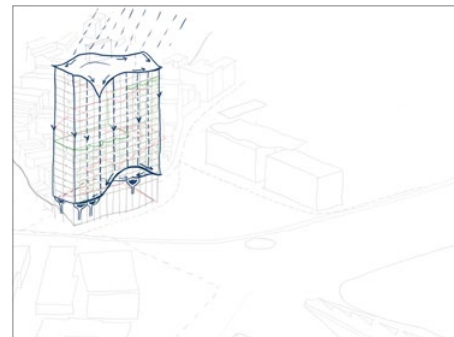
The desalination pods filter the water and feed it back to the building after passing through the wetlands.



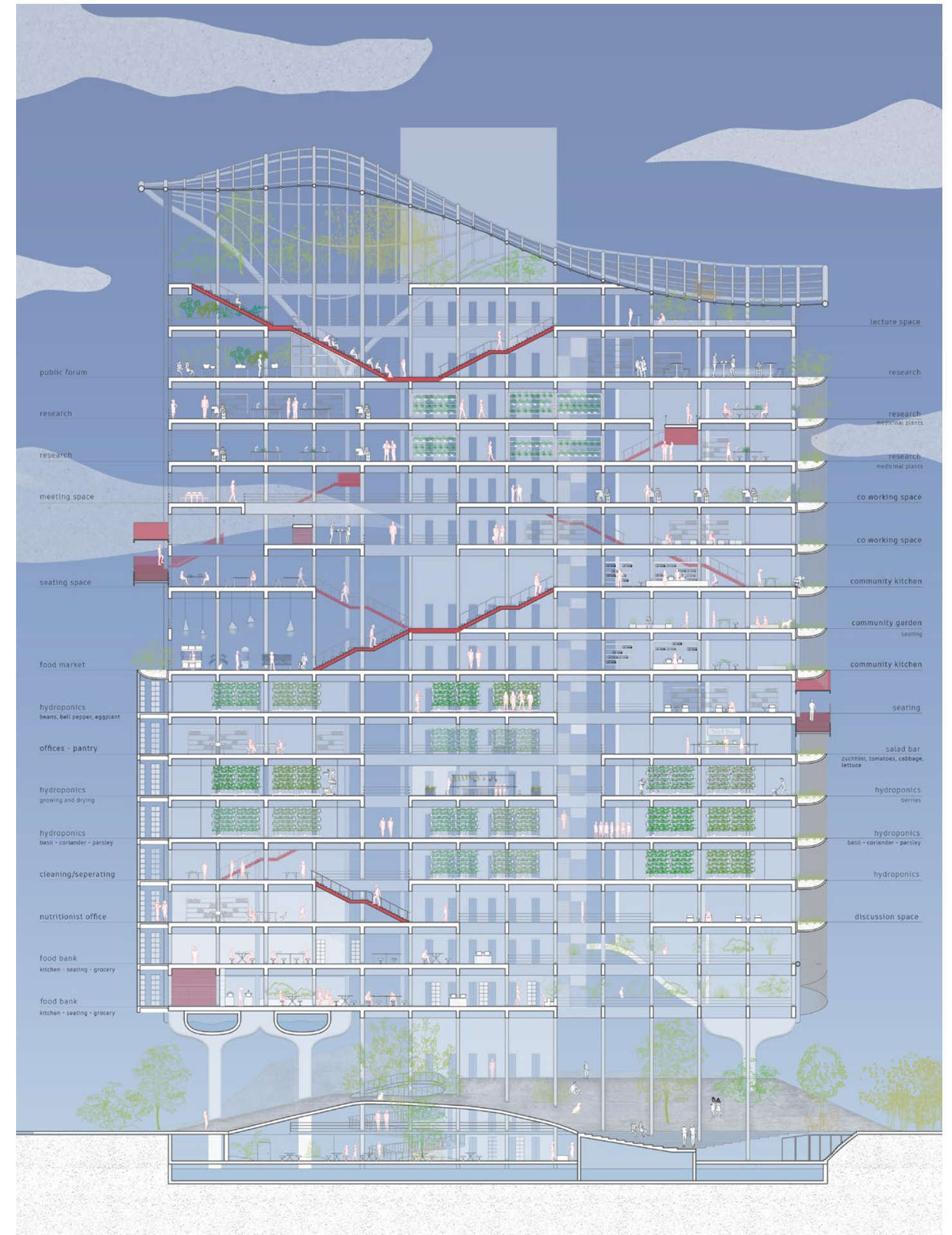
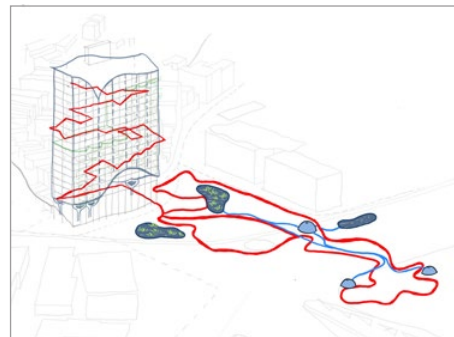
Circulation creates a journey through the programs for the users to experience

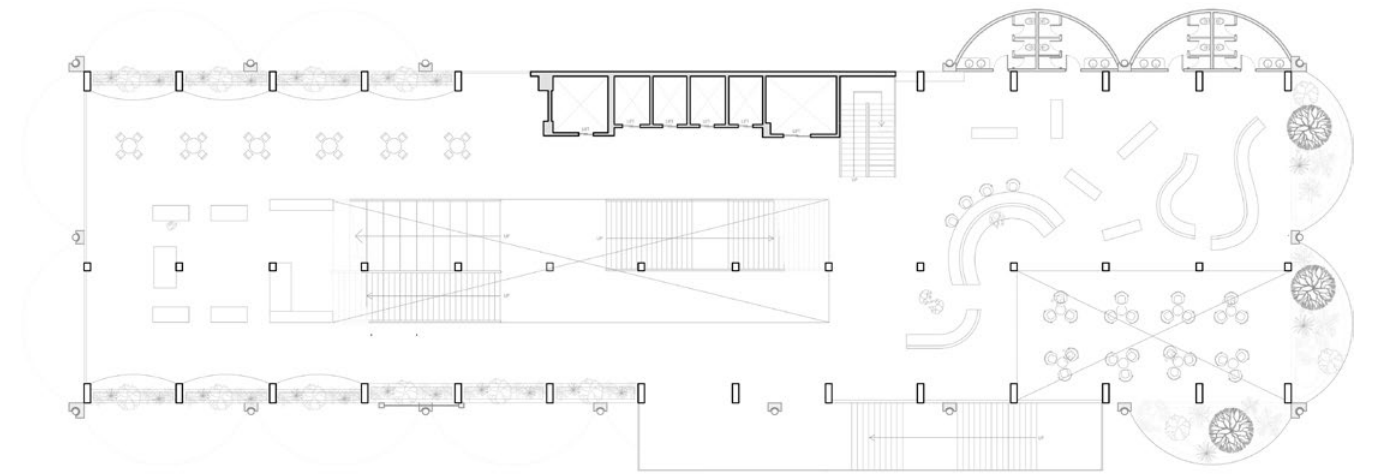


The cylindrical form maximizes farmable surface area, resembling traditional grain silos

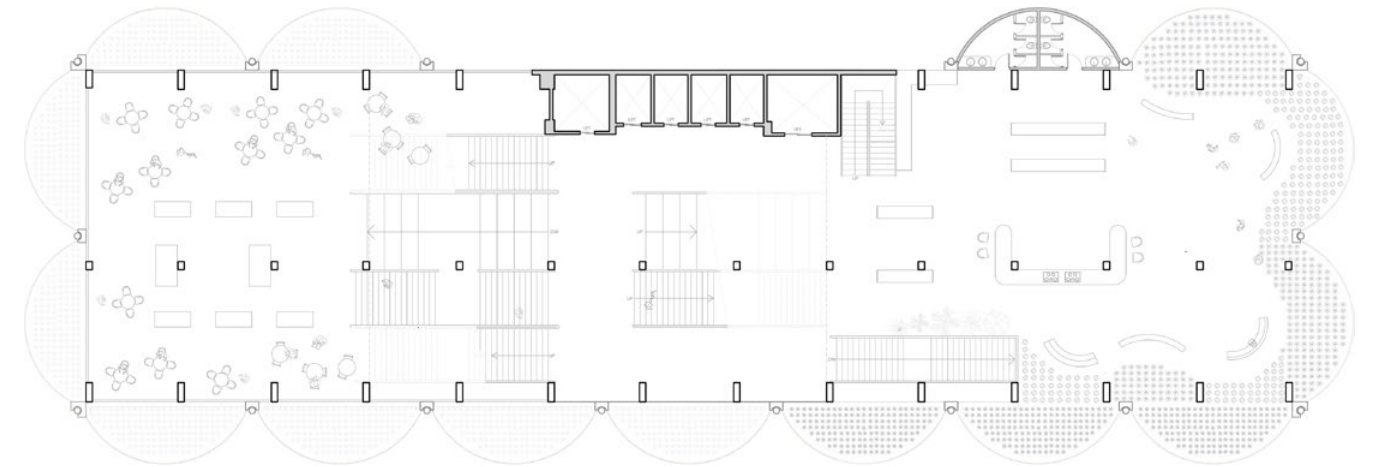


The rainwater enters from the highest point and travels to the lowest points on the site where it collects.

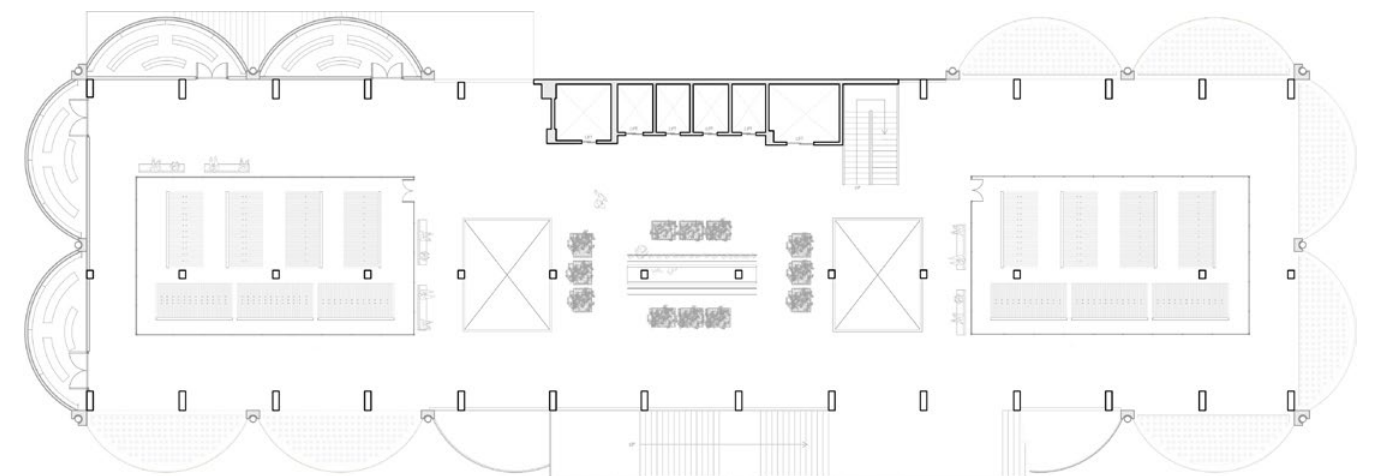




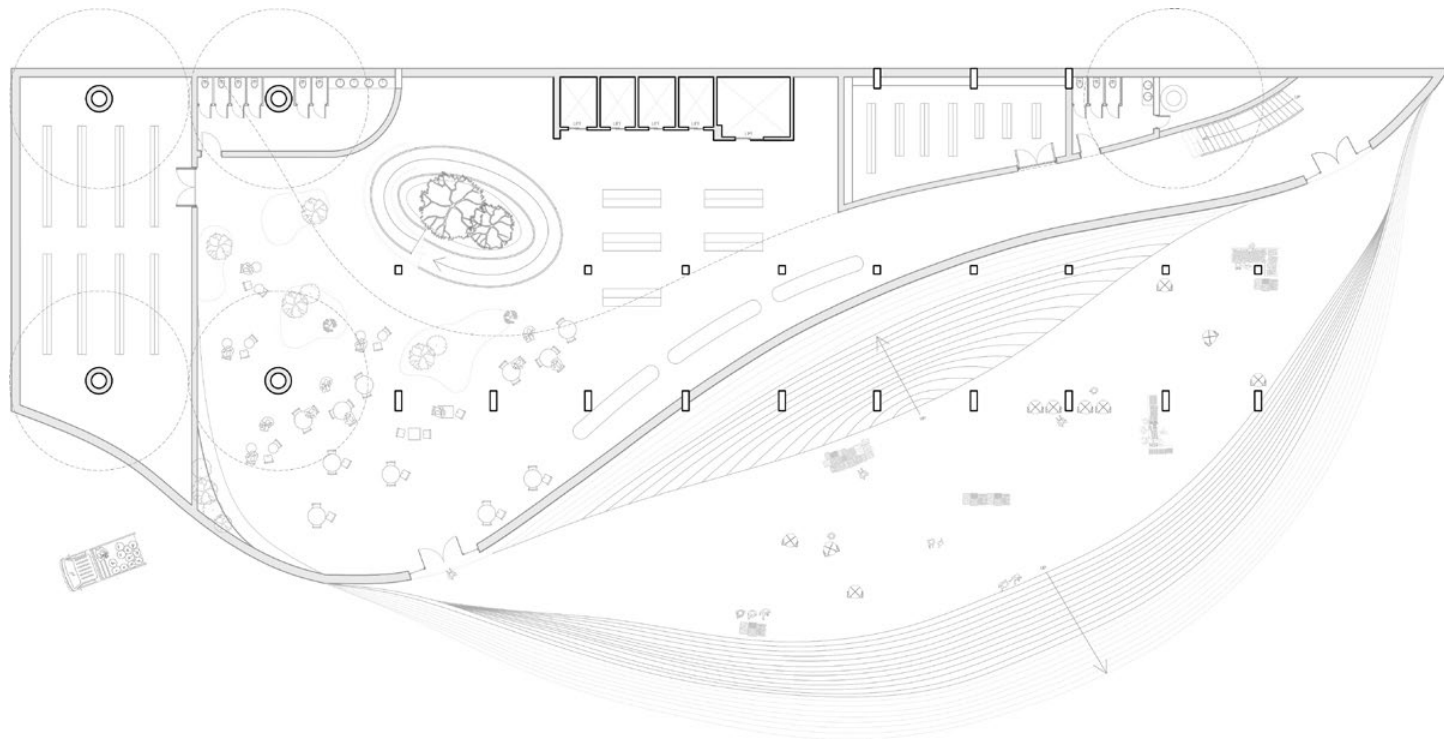
Level 16 - Public Forum and Discussion Space



Level 10 - Community Garden/Kitchen and Food Stalls

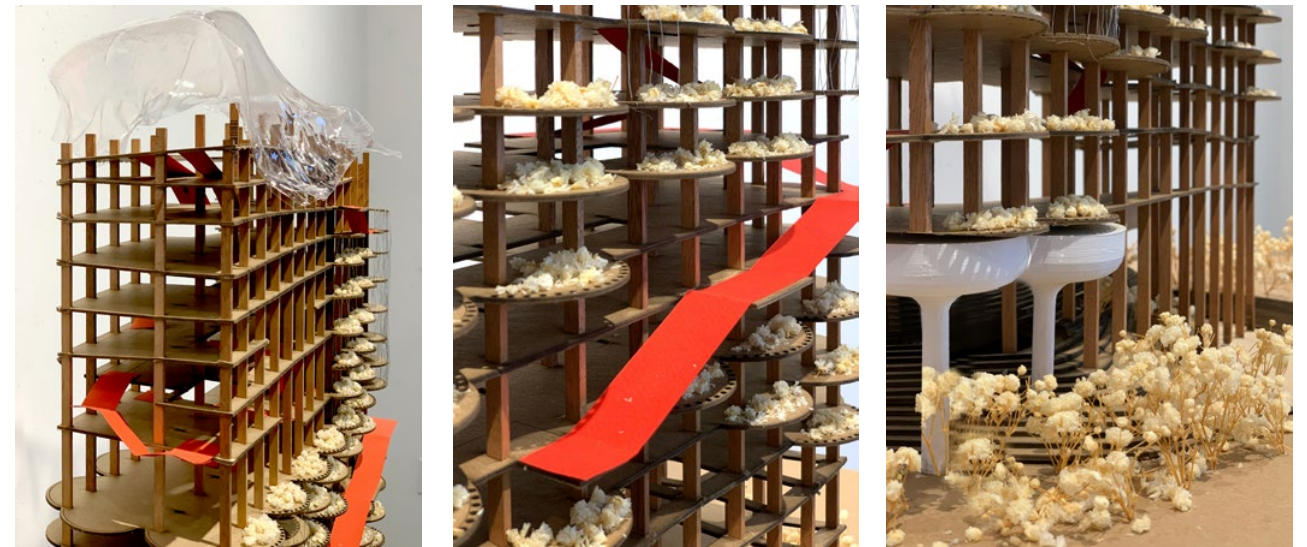
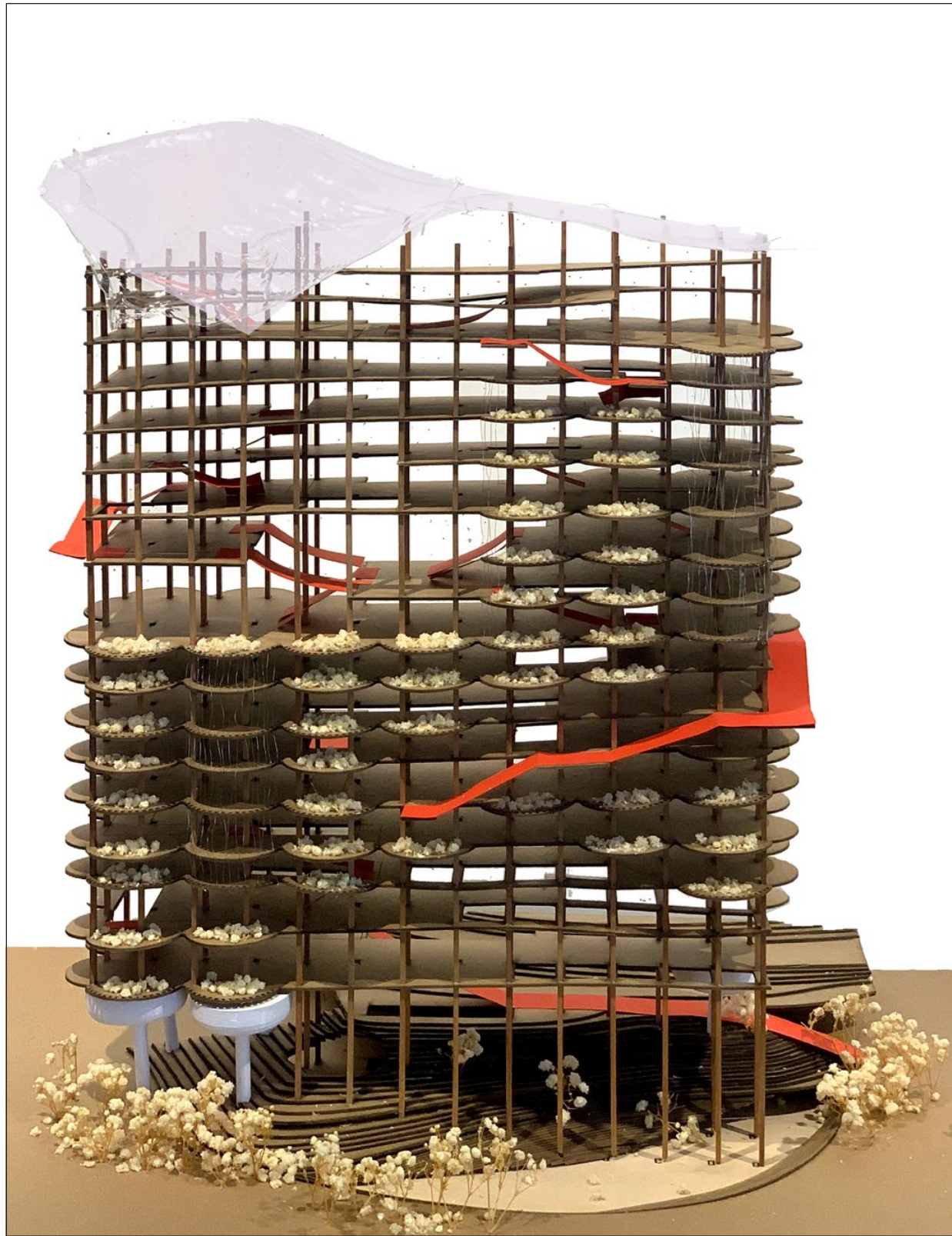


Level 6 - Hydroponics (Berries)



Basement Level - Food Bank/Grocery and Urban plaza with Food Market





Towards a Trans-species Architecture: A Manifesto



For too long, architecture has been an exclusively human endeavor - designed to serve our needs, reinforce our perceived separateness from nature, and impose our supposed mastery over all other beings. But a new paradigm is emerging, one that challenges these entrenched anthropocentric values. We call for a "trans-species architecture" - an expanded ethos of radical hospitality that embraces all lifeforms as equal inhabitants of our shared pluriverse.

1. We reject the arrogance of human exceptionalism and anthropocentrism. Our species is not the sole protagonist, but one of countless actors co-creating the ever-unfolding drama of life on this planet. To design solely for human use is to perpetuate blinkered self-obsession. A trans-species architecture deconstructs these hierarchies, fostering symbiotic relationships of mutual flourishing.

2. Our buildings must become catalysts for multi-species entanglement and co-existence. No longer inert objects, our architectural works will activate dynamic interplays between human, non-human, animate, inanimate, material and semiotic realms. Like Lina Bo's inclusive public spaces, they will nurture diverse modes of being and becoming. Luiza Proença describes Lina Bo's work as expressing a radical "know-how-to-live" that activates existence in its multiplicity, resonating with Coccia's call to decenter human exceptionalism in favor of seeing life through the lens of plants.

3. We embrace the beauty of imperfection, entropy, and ceaseless metamorphosis. Perfection is a myth that denies the organic processes continually transforming and shaping our world. A trans-species architecture revels in the "patinas of age," celebrating the unfolding stories etched into matter by myriad agents.

4. Our mission is to design spaces that amplify marginalized voices and perspectives. For too long, the built environment has reflected and perpetuated dominant Western narratives. Our work will platform other knowledges - indigenous, non-human, subaltern - creating new spheres of expression and resistance. Lina Bo's work challenges the homogenizing forces of globalization by celebrating local identity and distinctiveness. The SESC Pompéia, a former factory transformed into a cultural and recreational center, epitomizes this concept, providing a democratic space for people from all walks of life to gather, learn, and engage with one another. Bo Bardi's architecture challenges the notion of exclusivity, promoting inclusivity and fostering a sense of community.

5. We shall choreograph immersive, participatory "performances" that bring together human and non-human actors. Like Lina Bo's transformative Teatro Oficina, our buildings will become vibrant stages for interspecies encounters, blurring performer/audience divides. Her emphasis on inclusive, democratic public spaces facilitated diverse communities coming together in shared experiences akin to performances. These spaces nurtured the "coexistence and multi-species entanglement" that Donna Haraway advocated. Her sketches and drawings for theater venues reveal Lina Bo's deep understanding of architecture as a performative act. The sketches explore how bodies move and interact within the designed spaces in choreographic ways.

6. Boundaries between interior and exterior realms must be dissolved. Rigid separations between "built" and "natural" environments are illusory and unsustainable. Our designs will foster symbiotic continuities, echoing Lina Bo's Casa de Vidro. Her "minimum defenses" against the elements meant living with the ever-present threat of nature's power, instead of futilely trying to construct hermetic boundaries that "flee the storms" of the world.

7. The linear model of demolition and reconstruction is a dead end. We must instead embrace cyclical processes of adaptive reuse and transformation, reinventing structures through dialogue with their histories and contexts such as the Solar Unhão, celebrate the patina of time, embracing the imperfections and traces left by previous inhabitants, creating a sense of continuity and connection with the past. This concept is also celebrated in her adaptive reuse projects like SESC Pompéia can be seen as venerating the imprints left by plant life over time, rather than imposing rigid human control.

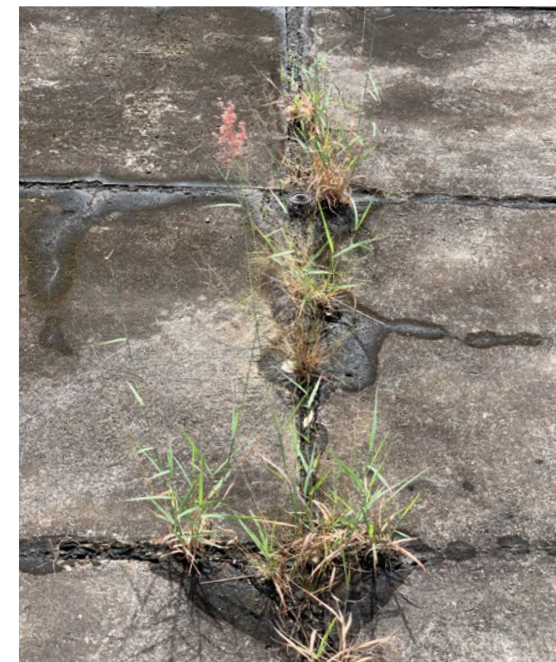
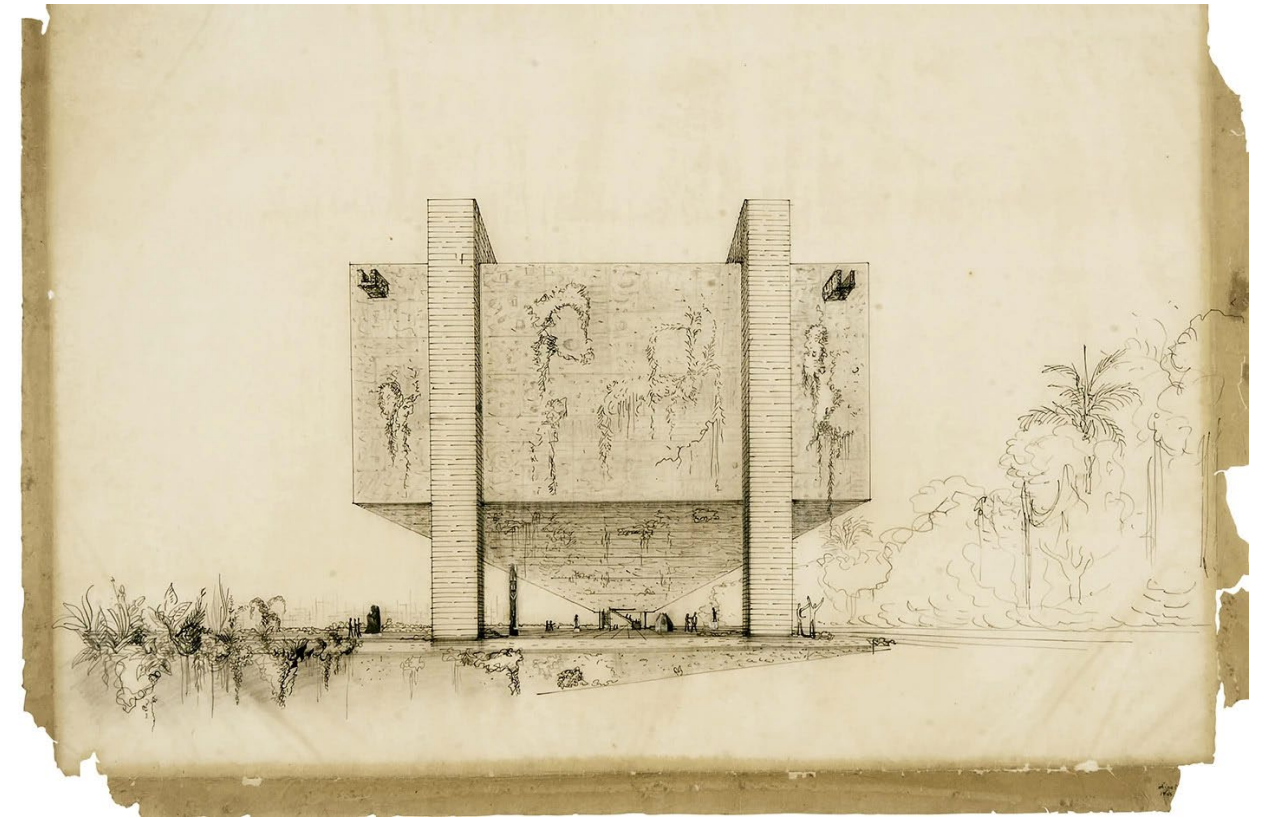
8. Our work will mobilize diverse knowledges and ways of world-making. No single epistemology can capture the radical multiplicity of life. We shall activate a “know-how-to-live” that embraces plural perspectives and ontologies. We need to position ourselves against the processes of domination and in favor of emancipatory freedom, which is to be effected through active and collective participation. Lina Bo rejected elitist notions of the “public” in art and museums - framed as an uninformed mass. Instead, she spoke of “people” and aimed to make cultural institutions accessible to all.

She also reconceptualized “conservation” away from preserving a singular, universal perspective toward an idea of “documentation” that keeps cultural activity fluid and alive. Rather than freezing artworks and artifacts, documentation allows them to remain in constant creative movement as part of a dense, multi-vocal “historical present.”

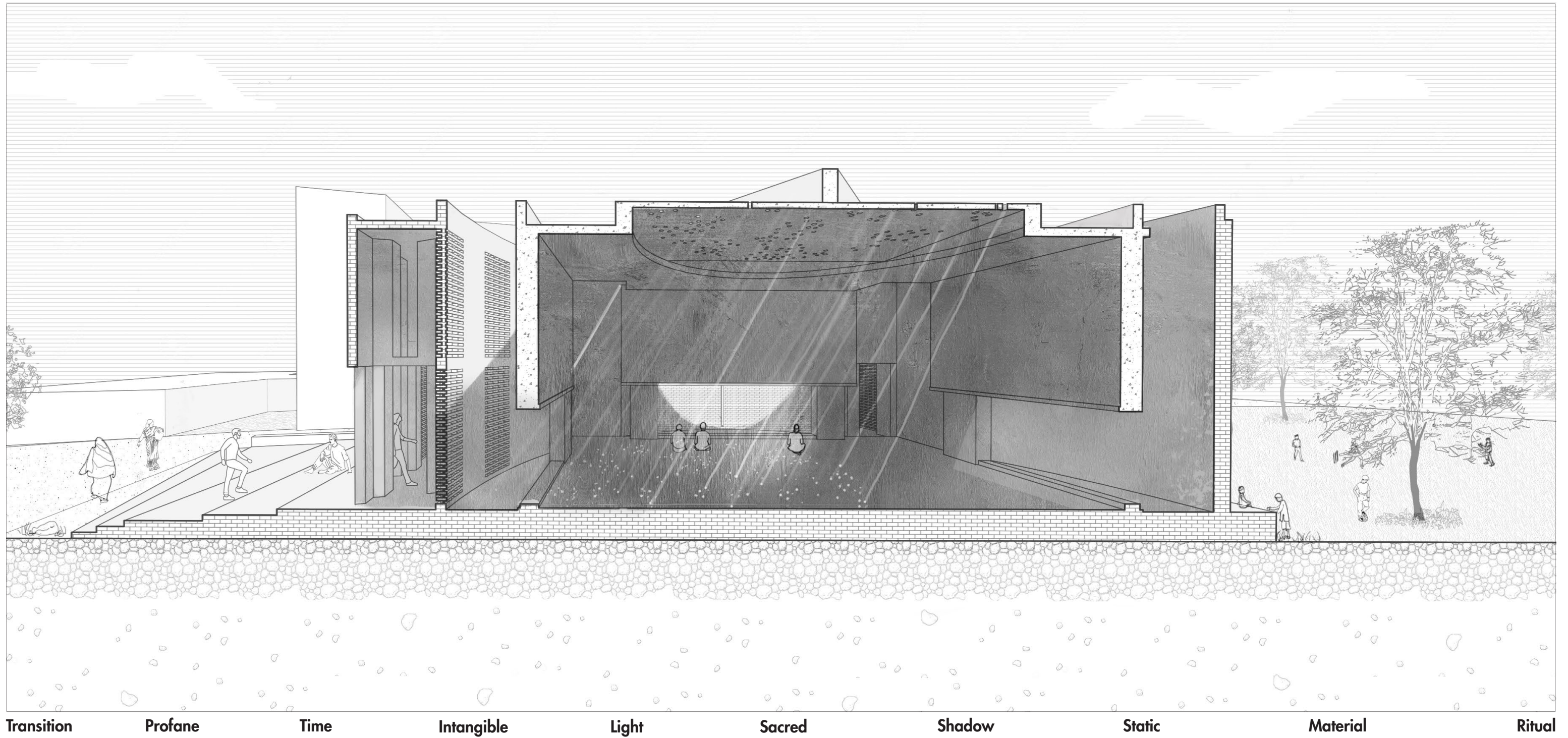
Lina provokes São Paulo’s elite by imagining a building in the center of the city (Solar Unhao) that was to be, although monumental, “ugly” and “poor.” Lina rejected the battle against the decadence that could threaten the progressive ideals of the elites to praise the ruin instead, assuming an upstart nature, not at all hygienic for the parameters of Western civilization.

9. Plants are not inert objects but fundamental co-creators of the world we inhabit. Our designs must attune to the vital materialities and agencies of the vegetal realm, allowing plants to shape our architectural “atmospheres.” Lina made a series of drawings in which the future MASP appears covered with mosses and epiphytic plants that bend and mingle with the construction. This non-parasitic vegetation would cohabit the building with works from the collection, which, therefore, would not be preserved from the effects of time but rather be treated as beings that live and die. Vegetation ceases to be a mere landscape and goes on to be in the very same place as culture. In other words, the division between nature and culture on which the Western worldview was founded dissolves. Hybrid existences abound in the drawings, such as the spiraling “flower-staircase” that Lina sketches as a connecting element between the internal and external spaces of the MASP.

10. To live is to live the life of another; our buildings shall become vessels for this interspecies symbiosis. No being is ever fully self-contained. A trans-species architecture nurtures these interdependencies, fostering a radical ecology of mutual support and worldly collaboration. The ever-transforming “marvelous tangle” of Lina Bo’s designs, with their layered histories and openness to future reinvention, reflects Coccia’s understanding of time as non-linear - a continual unfolding shaped by the lives of plants and their surroundings.



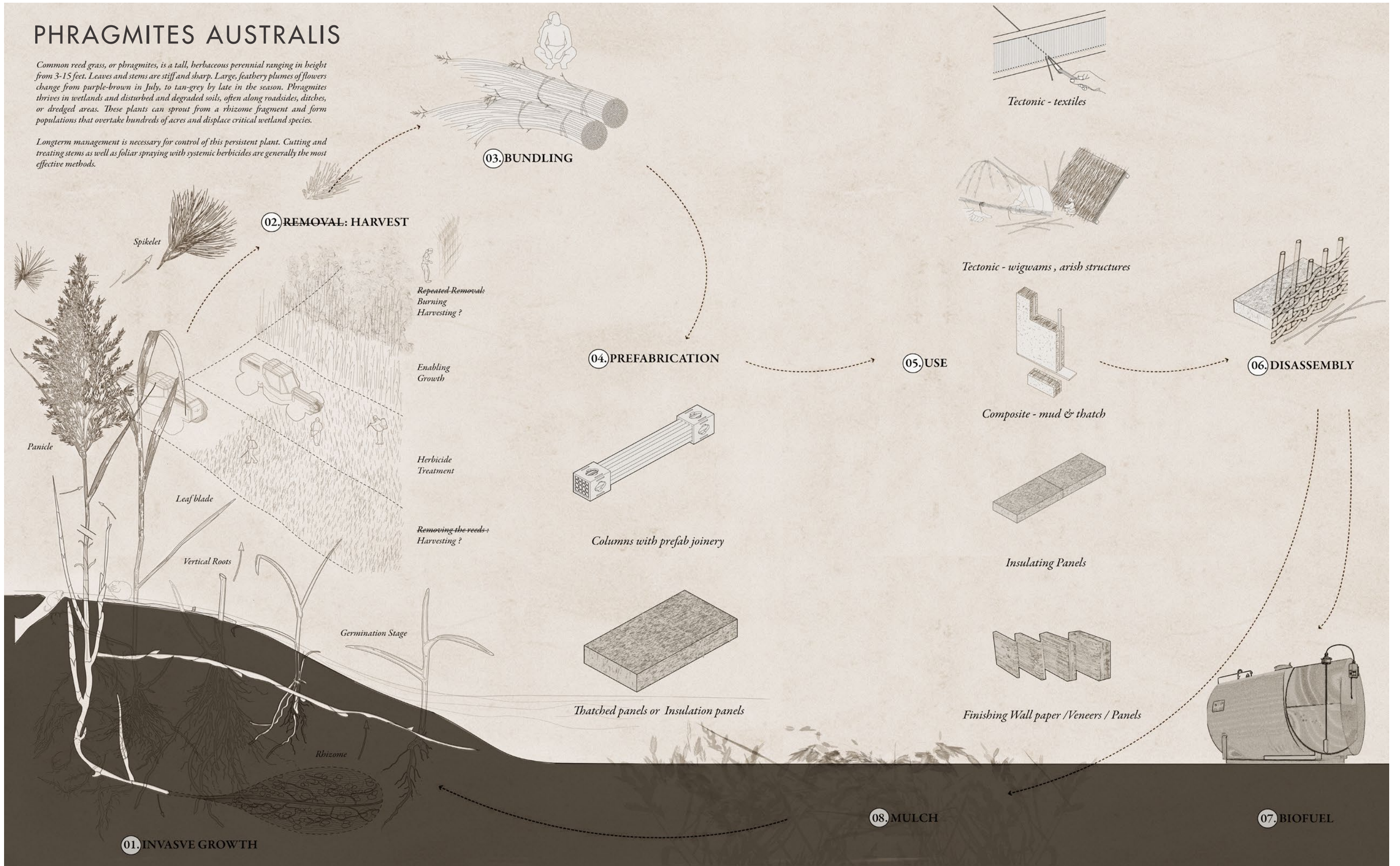
BAIT UR ROUF MOSQUE - MARINA TABASSUM



PHRAGMITES AUSTRALIS

Common reed grass, or phragmites, is a tall, herbaceous perennial ranging in height from 3-15 feet. Leaves and stems are stiff and sharp. Large, feathery plumes of flowers change from purple-brown in July, to tan-grey by late in the season. Phragmites thrives in wetlands and disturbed and degraded soils, often along roadsides, ditches, or dredged areas. These plants can sprout from a rhizome fragment and form populations that overtake hundreds of acres and displace critical wetland species.

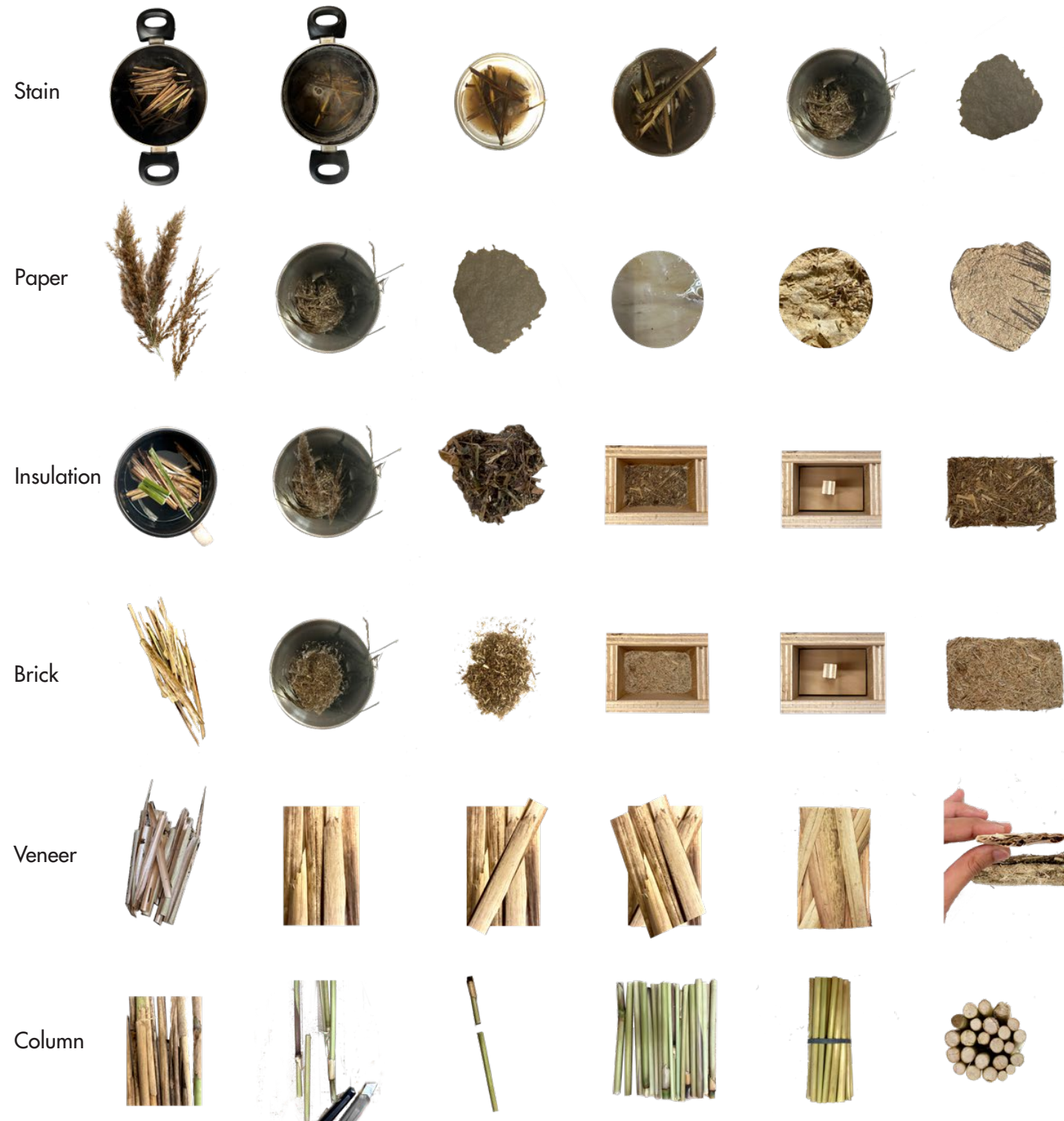
Longterm management is necessary for control of this persistent plant. Cutting and treating stems as well as foliar spraying with systemic herbicides are generally the most effective methods.



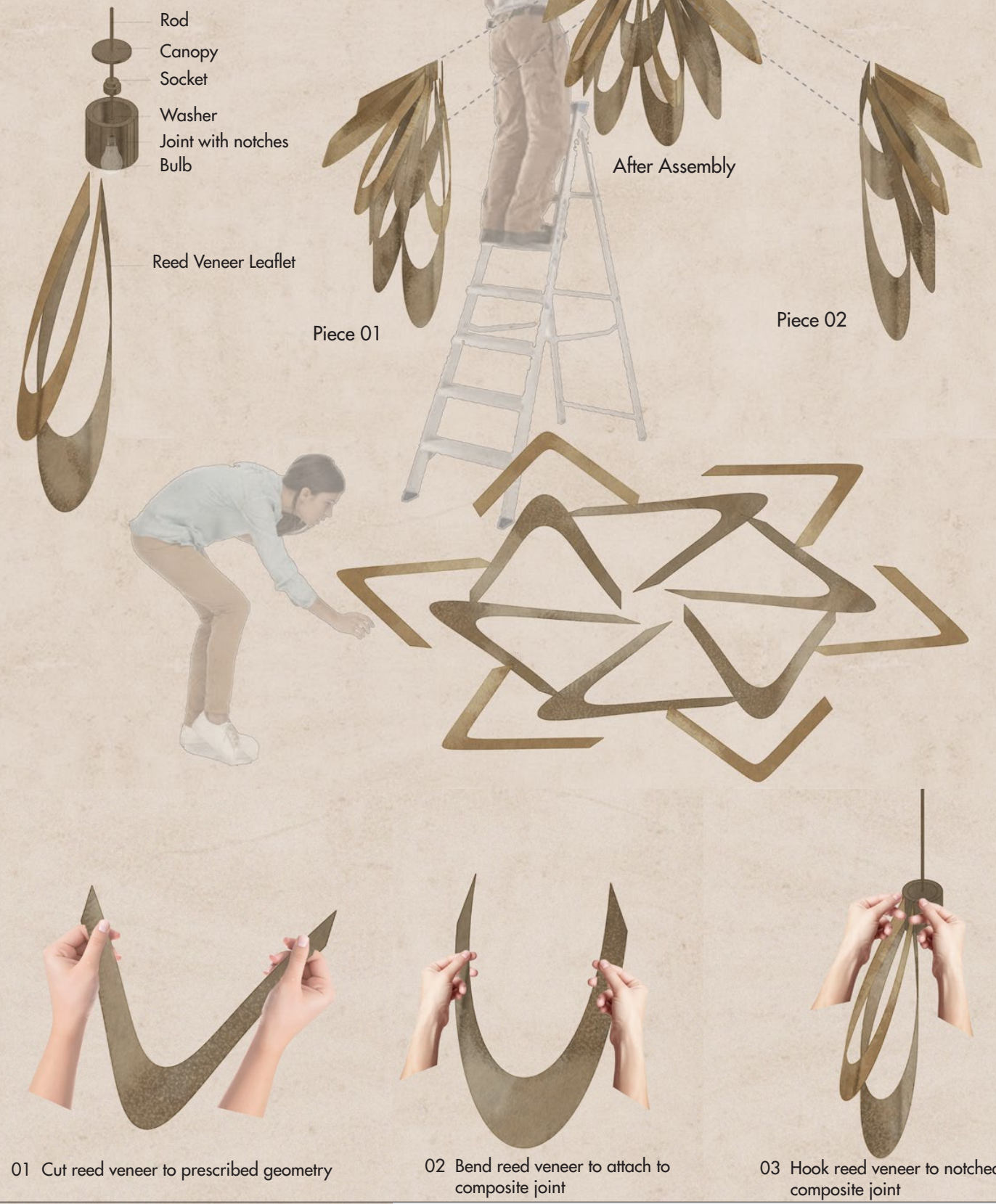
Raw Materials



Prototype Explorations



Assembly Sequence





How did the influence of British Colonialism in South Asia, particularly in Pakistan, shape the evolution of post-colonial architectural styles and cultural identity, and how did architects navigate the tension between colonial legacies, modernist ideology and the assertion of national heritage in their designs?

Cruz Garcia and Nathalie Frankowski lead us to an inquiry about the impact of post-colonial political, social and economic structures in architecture and how they can confine architectural practice within predetermined boundaries. As we see across history, colonial powers employed modernist strategies as tools of colonization in reshaping and controlling indigenous landscapes. Central to this dialogue is the recognition of indigenous architectural styles, components, and visual qualities that can frequently be categorized as regional, have emerged in various nations as cultural symbols of a revived locality.

Additionally, the new architectural landscape intentionally exuded an imposing character, deliberately diverging from indigenous norms. These were then harmonized with 'international' or 'contemporary' aesthetics and introduced into diverse cultural or religious settings. Consequently, these contemporary elements fused with local materials or architectural styles are conveyed in a mode of post-colonial advancement. Through this essay I want to develop a clearer understanding of the case of Pakistan and the central tensions/fusions between nationalism and religion, especially in its Presidential commissioned buildings, forms a pertinent lens to understand how architecture becomes a potent vehicle for the propagation of these narratives in the post-colonial context.

The imprint of British colonial rule on post-colonial architecture in South Asia, notably in Pakistan, remains palpable and multi-faceted. In Lahore, beyond the old city confines, new districts were meticulously planned as 'model towns,' imbued with a distinctly European character in their urban layout. As colonial influence extended, institutional structures were erected by European architects in a strikingly eclectic fashion as enduring symbols of authority and state power. Cherished traditional elements like domes were relegated to mere embellishments on otherwise neoclassical European structures. Gradually, the conventional cityscape became synonymous with backwardness, while the modern implied progress. The era also sparked a dialogue between tradition and modernity, with postcolonial nations reinterpreting colonial architecture to assert cultural identities and evade colonial echoes.

At the time of independence, two threads defined national identity: secular nationalism symbolizing progress and shared future, and religious identity driven by Muslims' desire for their own place of worship. These concepts influenced Pakistan's architecture, seen in early state-sponsored works by Western architects like Edward Durrell Stone and Louis Kahn. These architects blended modernism and Islamic design, reflecting the interplay of religion and nationalism in their formation, postindependence. Islamabad, Pakistan's capital, was created to house major government buildings like the secretariat, presidential, and supreme court complexes, aiming to portray both modernity, progress and religious heritage. Foreign architects like Edward Stone, Gio Ponti, and Kenzo Tange tried to blend modernism with Islamic themes, as termed by Kamil Khan Mumtaz as the "Islamization" of modern architecture and "modernization" of Islamic architecture.

Among Islamabad’s prominent buildings, the Presidency Complex, designed by Edward Durrell Stone, stands out (Fig.1.0). Stone’s designs encompassed the President’s and Parliament houses within the complex. Initially, Arne Jacobsen received the commission, but his design fell short due to its resolutely modern outlook that lacked the “Islamic features” sought by the CDA (Fig1.1). The cylindrical shape’s imposing presence ensured visibility from all angles. The deliberate simplicity and directness embraced by the architect aligned it with the International Style, eliminating any “expressionistic overtone” and enhancing the shell’s unembellished purity. Louis Kahn’s design faced a similar outcome. According to Sten Nilsson in “Islamabad: The Quest for a National Identity,” Professor Kahn’s rejection was attributed to the difficulty of adapting his design to incorporate Pakistan’s aspiration for Islamic architecture in public buildings.

Ultimately, Stone’s fondness for Mughal architecture led to his design being materialized. It’s notable that Kamil Khan Mumtaz highlights the interplay of religious and Islamic nationalist sentiments in the design of secular structures, juxtaposed against the secular considerations that guided the design of the religious Shah Faisal Mosque (Fig 1.2). Vedat Dalokay’s initial design for the mosque seamlessly combined classical mosque architecture with contemporary elements, though later edits aimed to align it more with the “international style” by removing traditional references. This intricate dynamic shaped Islamabad’s architectural narrative.

Alongside Islamabad’s national effort to cultivate an Islamic nationalist image, a parallel initiative unfolded in another Pakistani capital during the same era. Around this time, Ayub Khan, while Bangladesh was still East Pakistan, commissioned the National Assembly Complex in Dhaka in 1962 (Fig.1.2). Architect Louis Kahn was entrusted with this project. Kahn’s central focus during the building’s design process was on achieving monumentality. He believed that drawing from historical precedents The examples of the capital cities of Islamabad and Dhaka and how they were both simultaneously imagined as symbols of an independent, progressive, Muslim nation is indicative of how architecture became a potent vehicle for the symbol of national pride and how this material expression in the context of post-colonial Pakistan – with its religiously charged symbolism – became the starting point of the narrative that continues to weave the secular ideologies of people, nation, democracy and equality with the contrasting and sometimes complementing religious and traditional ideologies of vernacular building traditions, symbolic forms and common heritage and ritual. Both of these contrasting and complementing ideologies are prevalent in post-colonial societies and the importance of the latter has been discussed through the virtue of such ideologies tying together the identity of a people in a single brand of culture and heritage. In the context of Post-colonial Pakistan, Islamabad and Dhaka serve as demonstrative instances showcasing contrary approaches uniting religion and modernism (as symbols of nationalism and progress) in representation. In Islamabad, the fusion involves explicit ornamental expressions of religious and traditional elements coexisting with a contemporary backdrop.



Fig 1.0: Presidential Complex, Islamabad. Designed by Edward Durrell Stone. Picture taken from Architecture In Pakistan. By Kamil Khan Mumtaz. Singapore: Concept Media, 1985

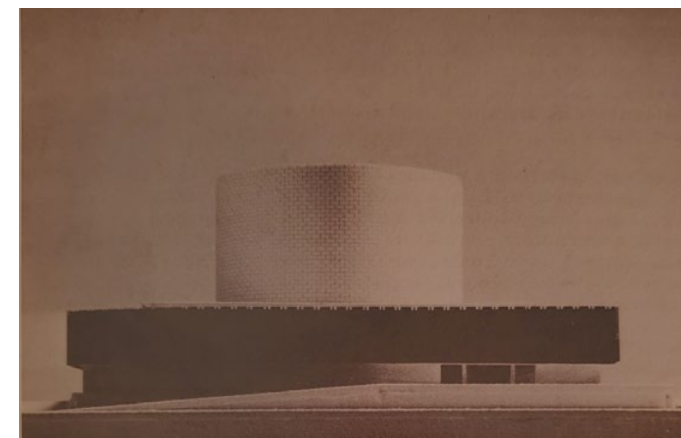


Fig 1.1: Model of the Assembly Building in Islamabad designed by Arne Jacobsen. This proposal was rejected by the CDA. Picture taken from The New Capitals of India, Pakistan and Bangladesh. By Sten Åke Nilsson. Studentlitteratur, 1973.

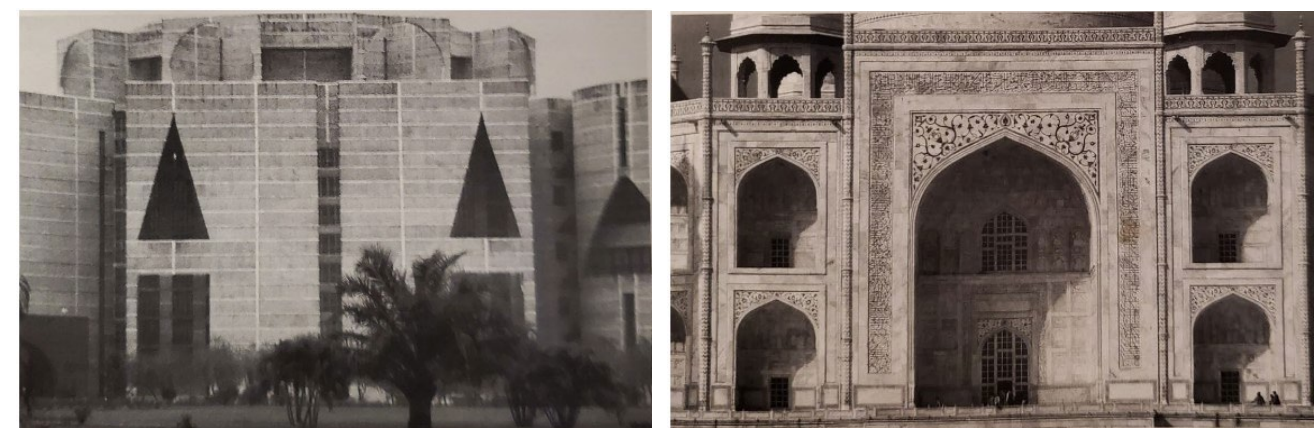


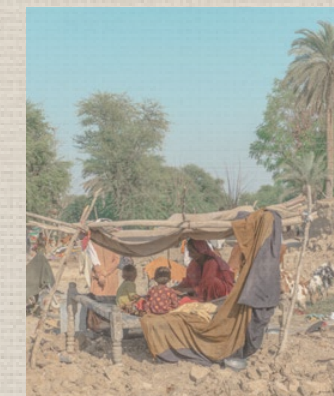
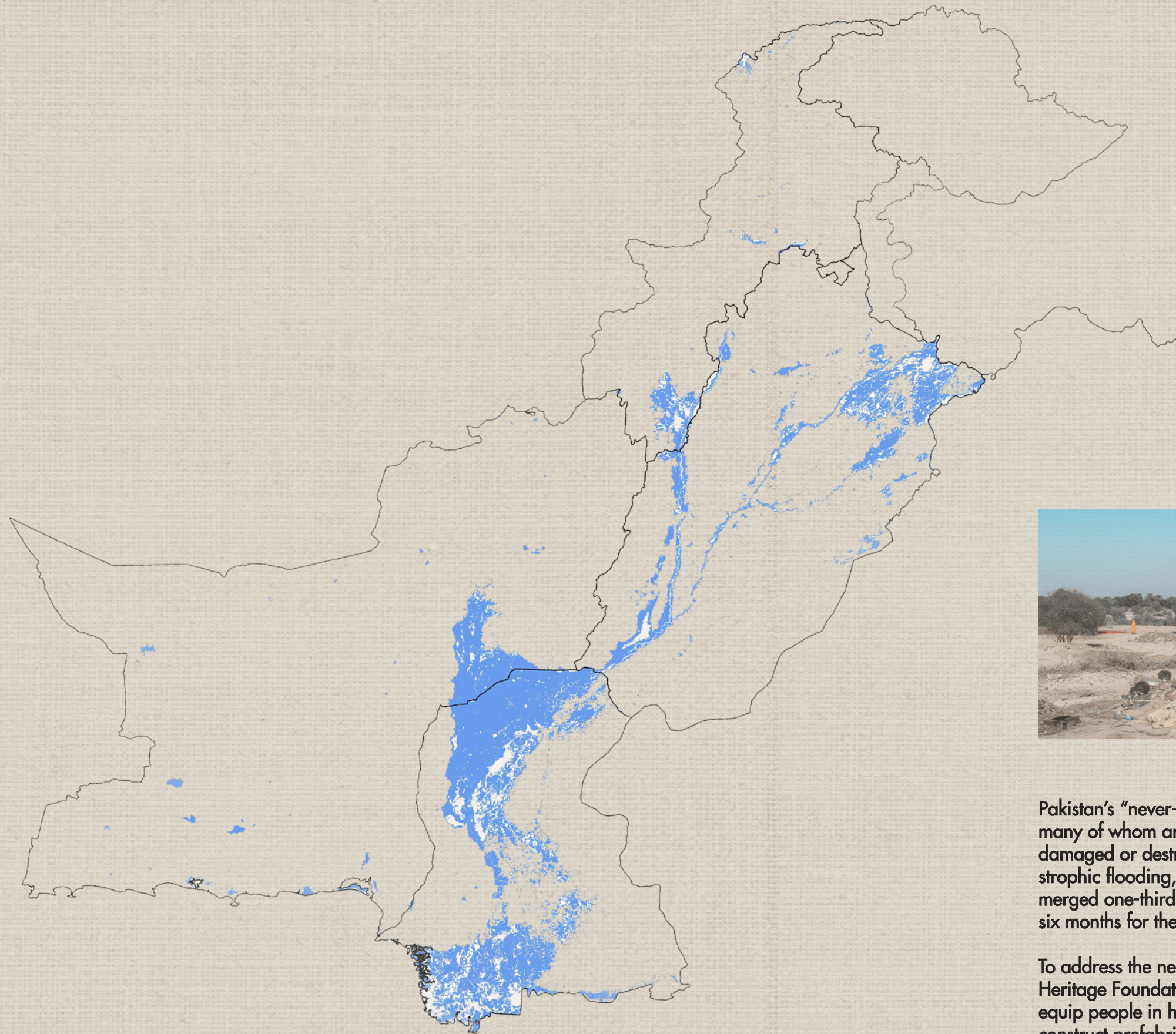
Fig 1.4: The two-tiered system in the National Assembly building (above) as well as the perforated forms as inspired by Mughal architecture (pictured in the Taj Mahal)



Meanwhile, Dhaka adopts an approach where secular progress and democratic ideals take the forefront, revealing heritage, culture, and religious symbolism through an innovative, abstract, and non-ornamental architectural manifestation could offer fresh concepts and models for this monumental undertaking. This outlook spurred his exploration of local heritage as a source for formal allusions. Additionally, he recognized that these references and gestures could forge stronger bonds among people linked by shared historical roots and heritage elements. Kahn, however, emphasized a substantial level of abstraction in incorporating these symbols. In the pursuit of forming its own identity, Kahn drew inspiration from monumental Mughal structures in the region and the architectural traditions of Bengal (Fig 1.4). This approach aimed to infuse the complex with a sense of grandeur and cultural resonance, creating a fusion between historical echoes and a contemporary architectural expression.

The examples of the capital cities of Islamabad and Dhaka and how they were both simultaneously imagined as symbols of an independent, progressive, Muslim nation is indicative of how architecture became a potent vehicle for the symbol of national pride and how this material expression in the context of post-colonial Pakistan – with its religiously charged symbolism – became the starting point of the narrative that continues to weave the secular ideologies of people, nation, democracy and equality with the contrasting and sometimes complementing religious and traditional ideologies of vernacular building traditions, symbolic forms and common heritage and ritual. Both of these contrasting and complementing ideologies are prevalent in post-colonial societies and the importance of the latter has been discussed through the virtue of such ideologies tying together the identity of a people in a single brand of culture and heritage. In the context of Post-colonial Pakistan, Islamabad and Dhaka serve as demonstrative instances showcasing contrary approaches uniting religion and modernism (as symbols of nationalism and progress) in representation. In Islamabad, the fusion involves explicit ornamental expressions of religious and traditional elements coexisting with a contemporary backdrop. Meanwhile, Dhaka adopts an approach where secular progress and democratic ideals take the forefront, revealing heritage, culture, and religious symbolism through an innovative, abstract, and non-ornamental architectural manifestation.

“...in the context of post-colonial Pakistan – with its religiously charged symbolism – became the starting point of the narrative that continues to weave the secular ideologies of people, nation, democracy and equality with the contrasting and sometimes complementing religious and traditional ideologies of vernacular building traditions, symbolic forms and common heritage and ritual.”



Pakistan's "never-before-seen" floods in 2022 affected 33 million people, many of whom are still seeking safe refuge after record monsoon rains damaged or destroyed more than a million homes. The summer's catastrophic flooding, which was exacerbated by melting glaciers, has submerged one-third of the country, with authorities saying it could take up to six months for the water to recede.

To address the need for emergency housing, architect Yasmeen Lari and the Heritage Foundation of Pakistan have been working around the clock to equip people in hard-hit Sindh province with the skills and materials to construct prefabricated bamboo shelters.

BAREFOOT ARCHITECTURE APPROACH

Under the principles of her practice, Barefoot Social Architecture (BASA), displaced communities are treated as partners. The displaced are considered perfectly able people who, with guidance and training, can be enabled to adopt the path of **self-reliance**.

In the global south, what we are looking for is a **transfer of knowledge** in order to prepare our communities for the next disaster.

A **women-centered, carbon-neutral approach** to housing that emphasizes co-creation and the use of **sustainable materials** like bamboo, lime, and mud

Bamboo was chosen for its strength and resilience. And, because it's commonly grown throughout the country, it's **easier to source**.

Where possible, "everything should be **locally-sourced**" Lari said. "This is a way to link up the production of housing with how **people can earn immediately**."

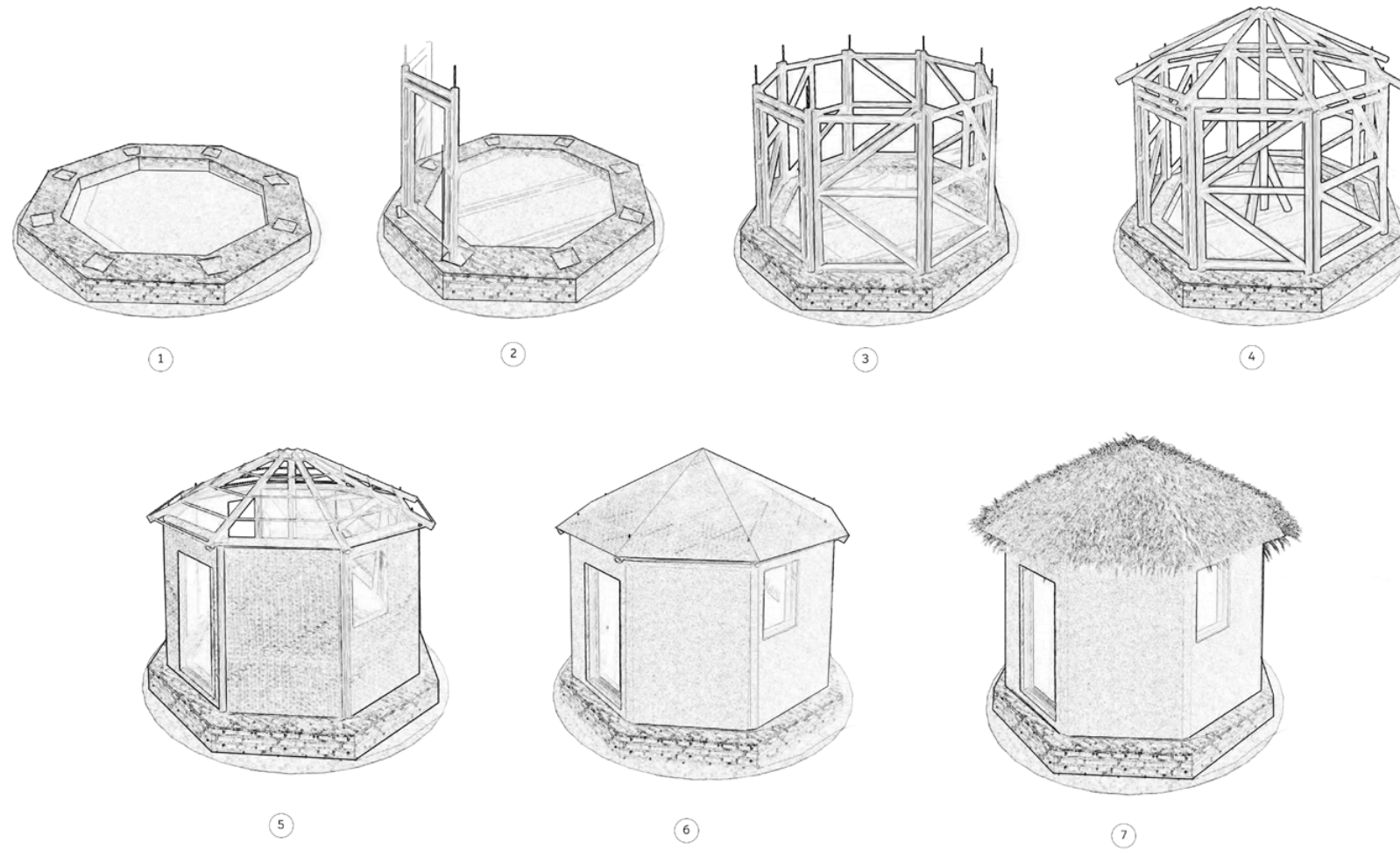


Before Floods

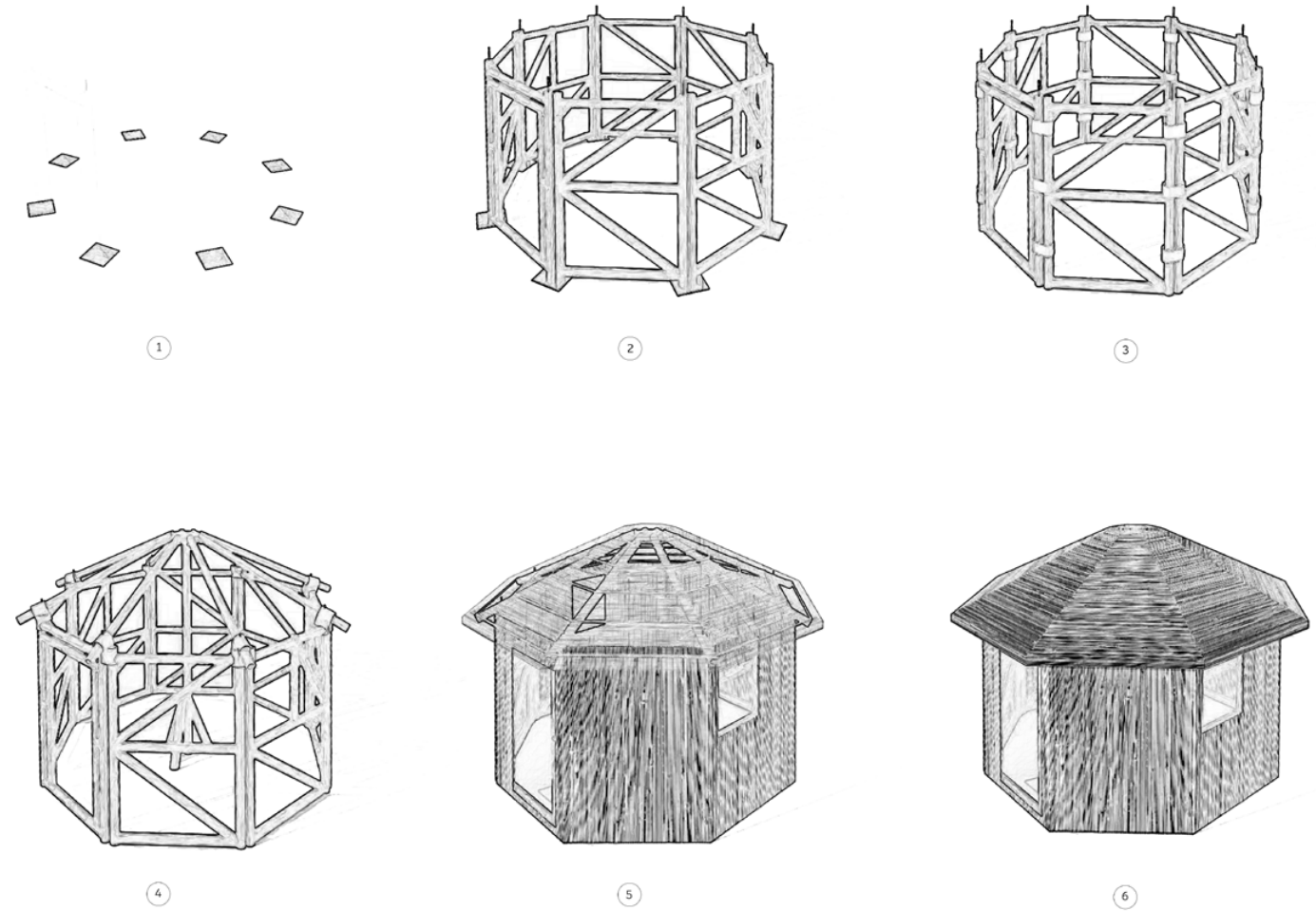


After Floods of 2022




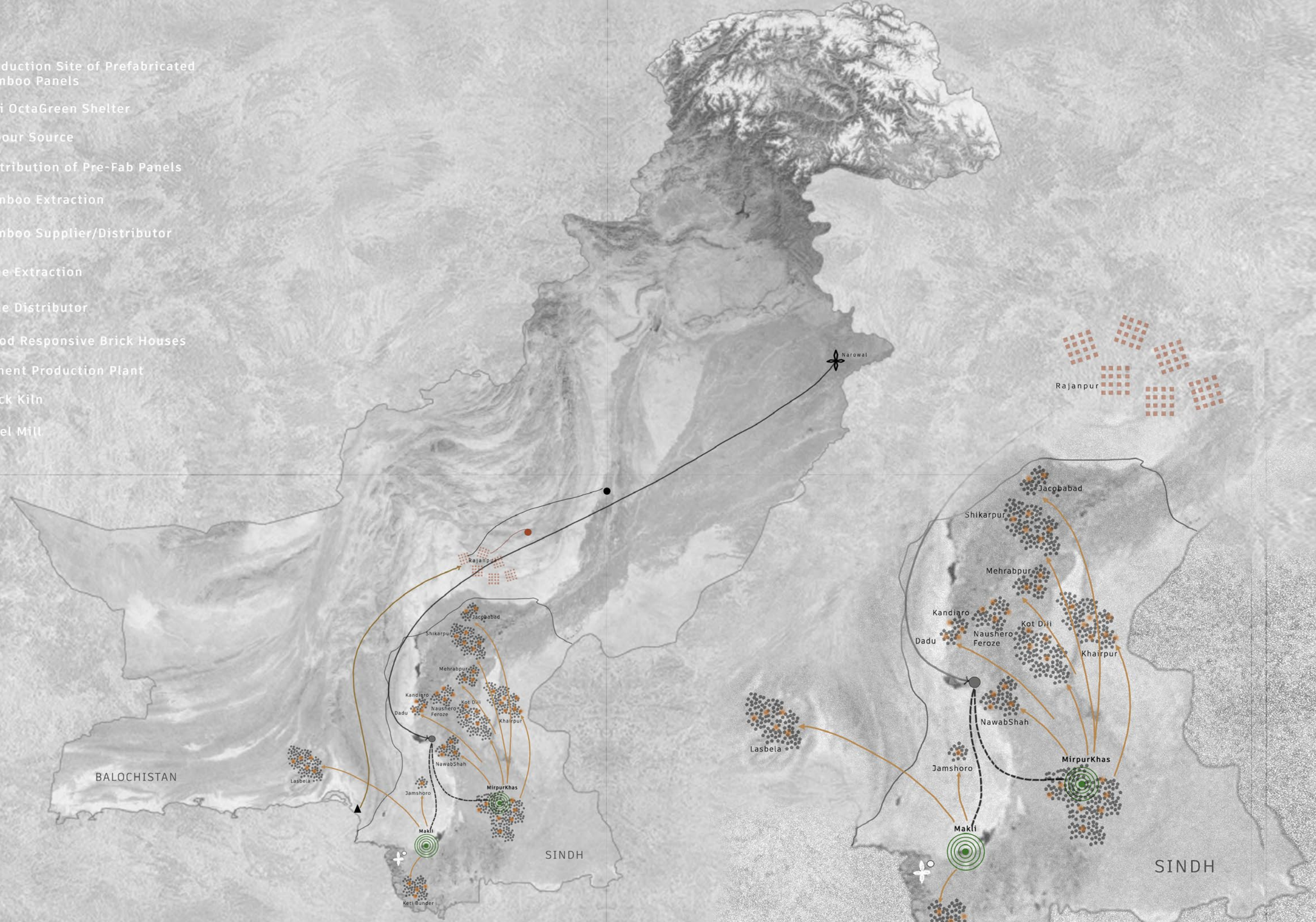


Lari Octagreen Permanent Shelter
8'x8'

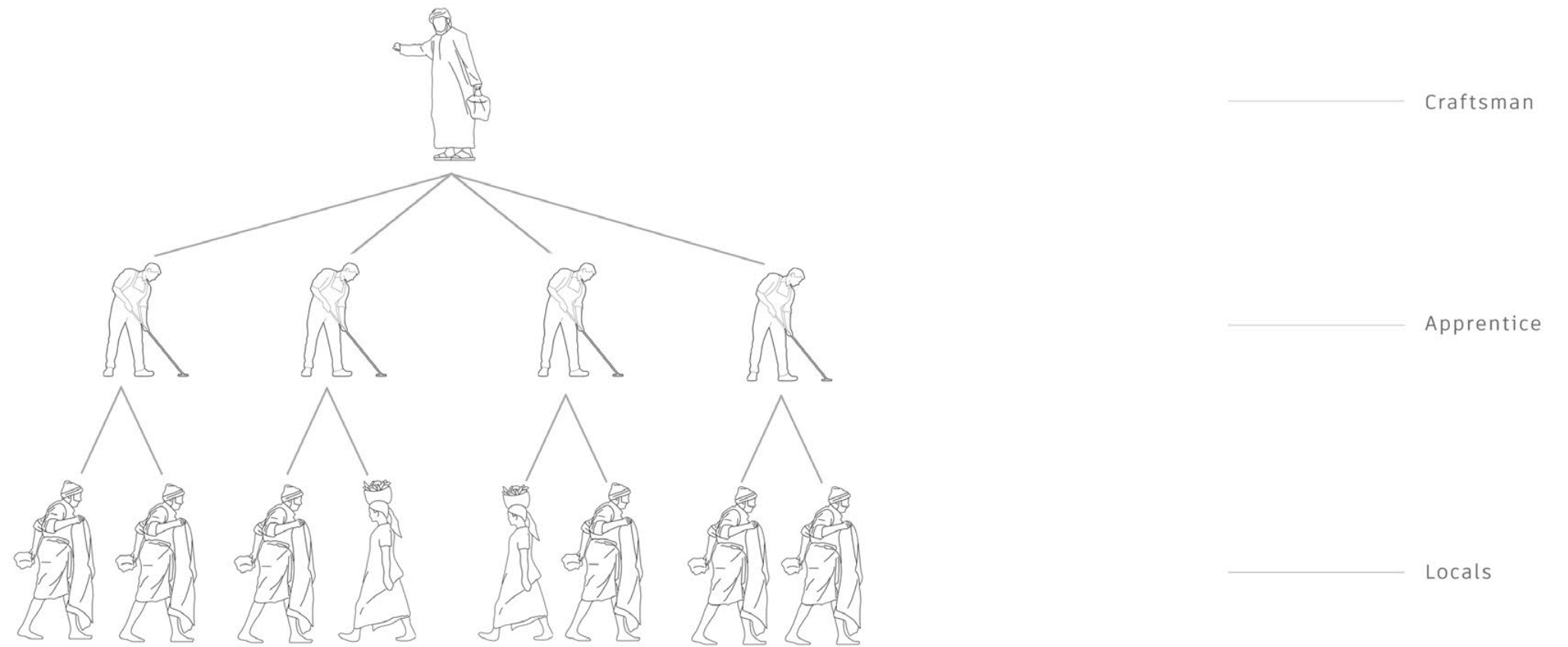


Lari Octagreen Emergency Shelter
8'x8'

-  Production Site of Prefabricated Bamboo Panels
-  Lari OctaGreen Shelter
-  Labour Source
-  Distribution of Pre-Fab Panels
-  Bamboo Extraction
-  Bamboo Supplier/Distributor
-  Lime Extraction
-  Lime Distributor
-  Flood Responsive Brick Houses
-  Cement Production Plant
-  Brick Kiln
-  Steel Mill



Hierarchy of Labour



Rate of Assembling Shelter

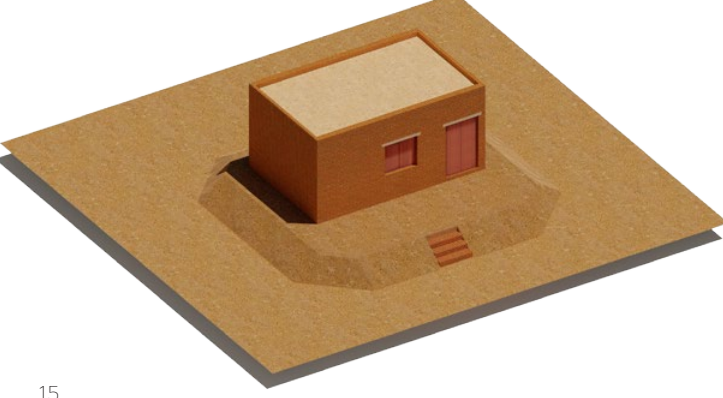
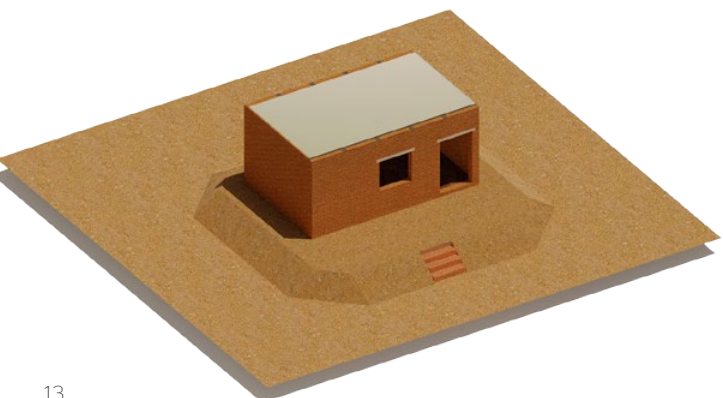
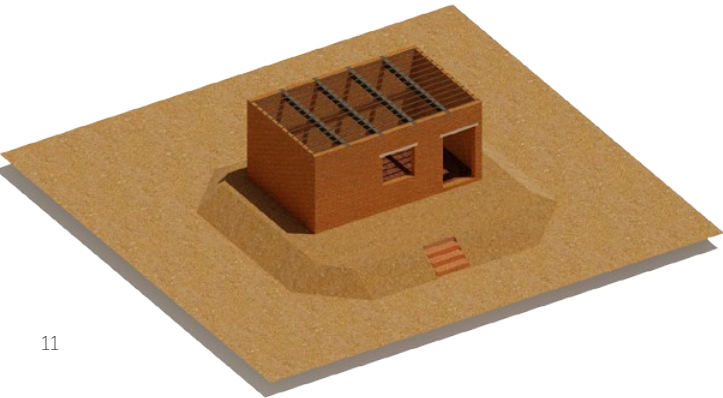
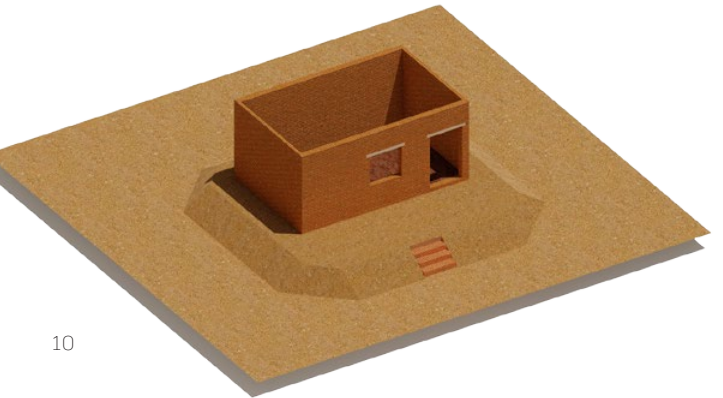
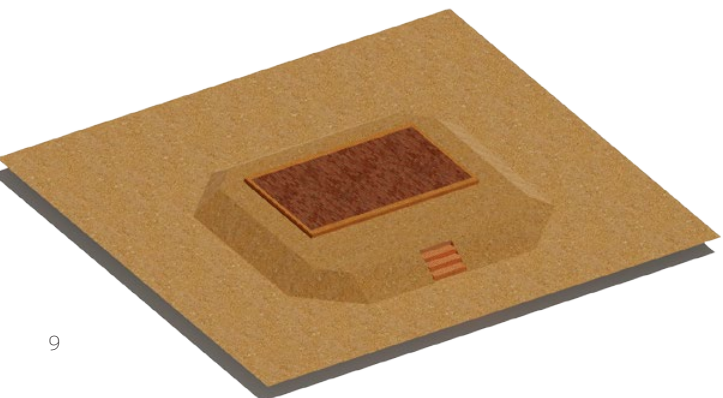
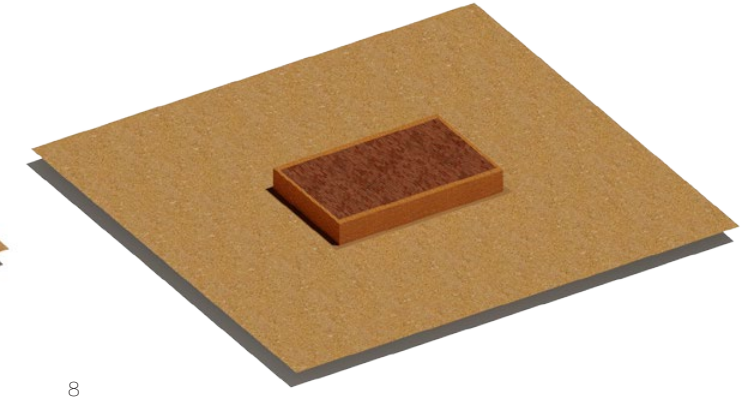
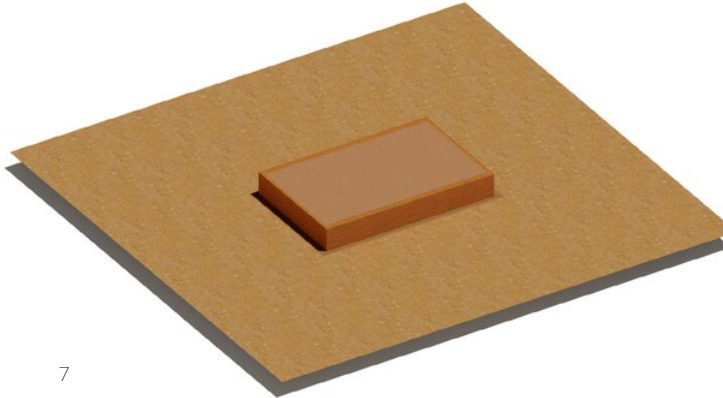
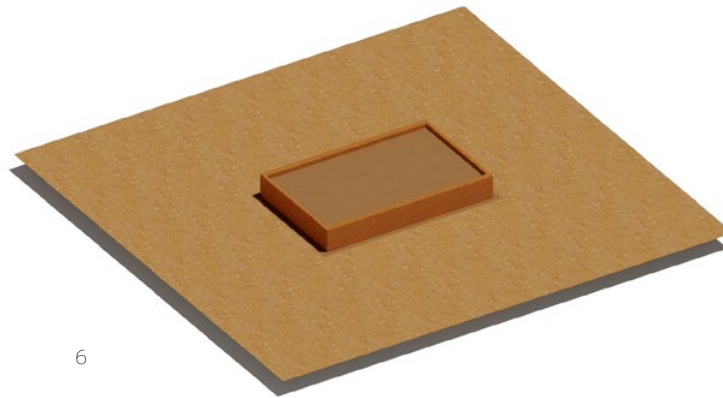
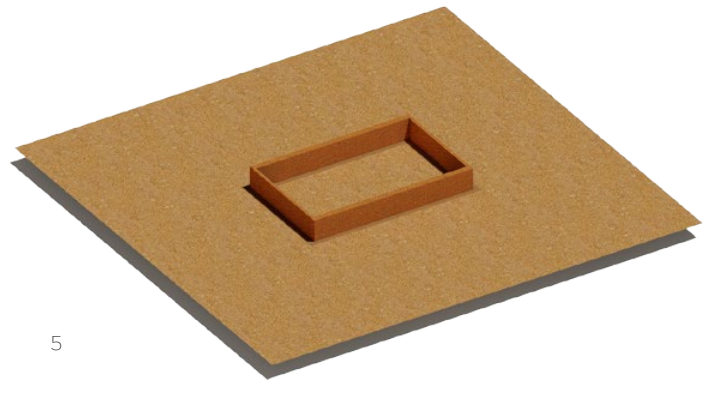
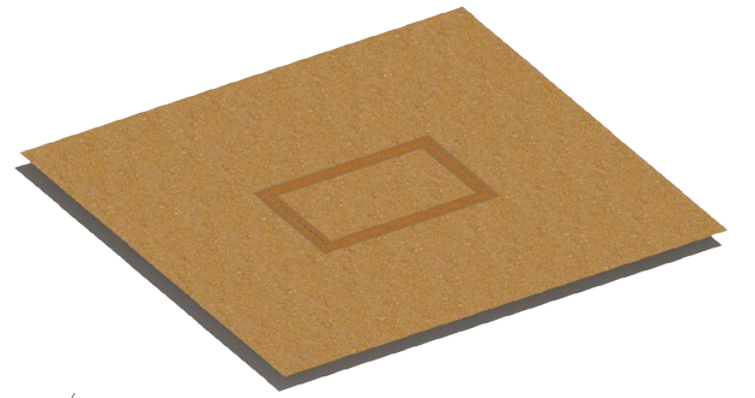
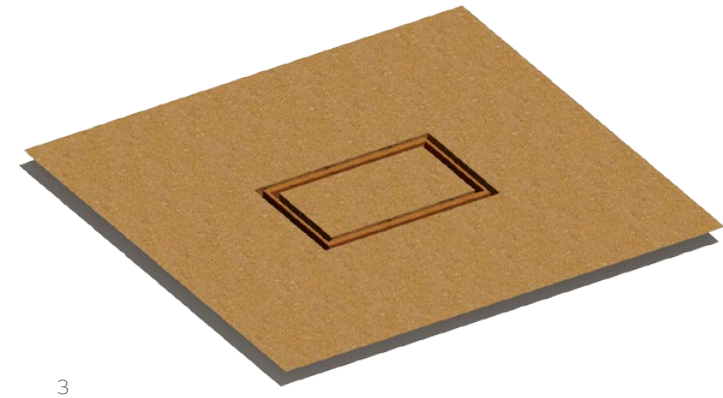
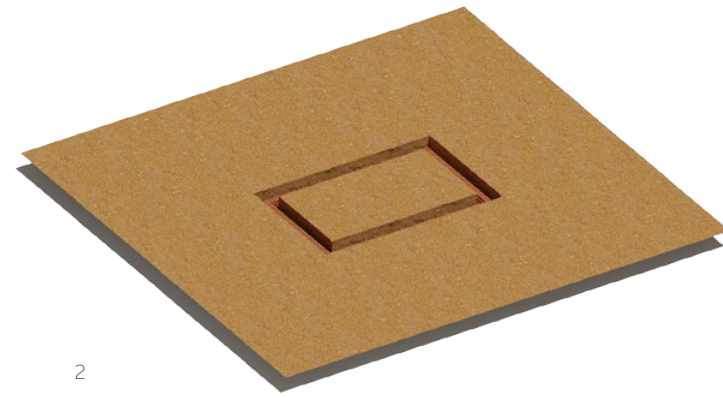
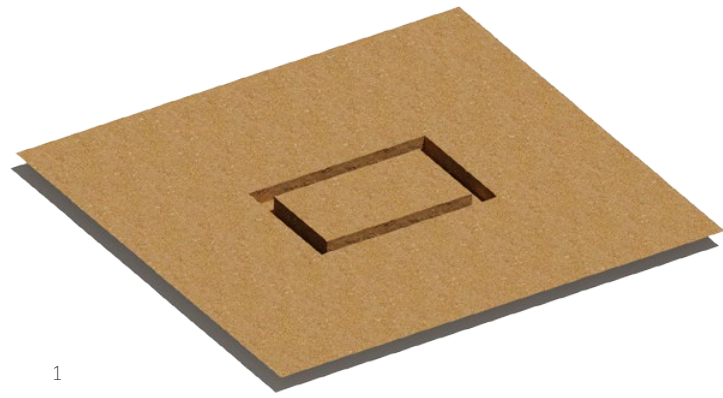


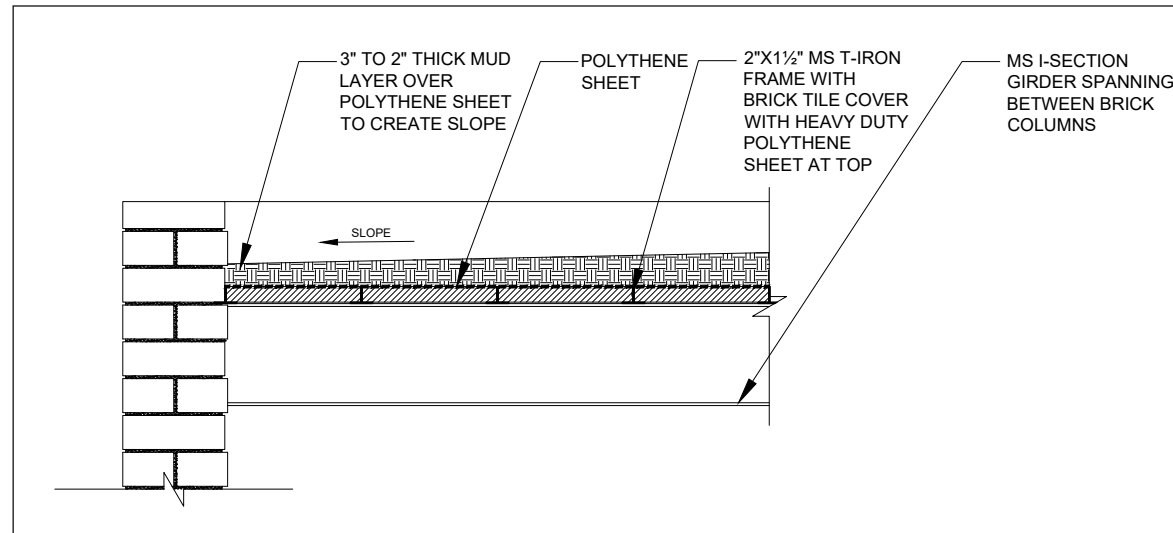
Financial Value



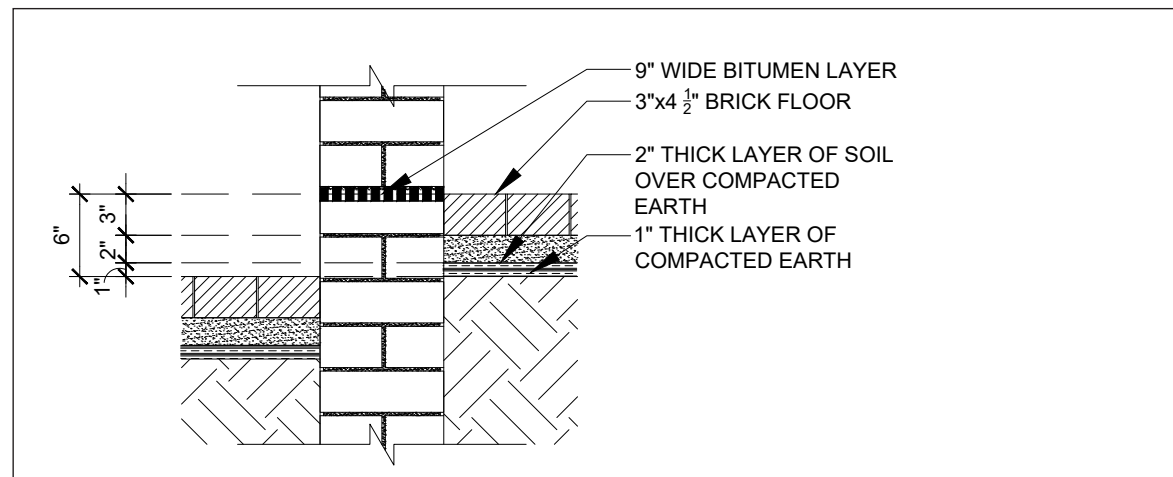
Pukka Housing for Flood-Prone
Rural Areas of Rajanpur







Roof Detail



Floor Detail



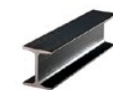
Primary Production: Energy and CO2

Embodied Energy

1.37e3 - 1.51e3 BTU/lb

CO2 footprint

0.239 - 0.264 lb/lb



Primary Production: Energy and CO2

Embodied Energy

6.45e3 - 7.43e3 BTU/lb

CO2 footprint

1.05 - 1.2 lb/lb



Primary Production: Energy and CO2

Embodied Energy

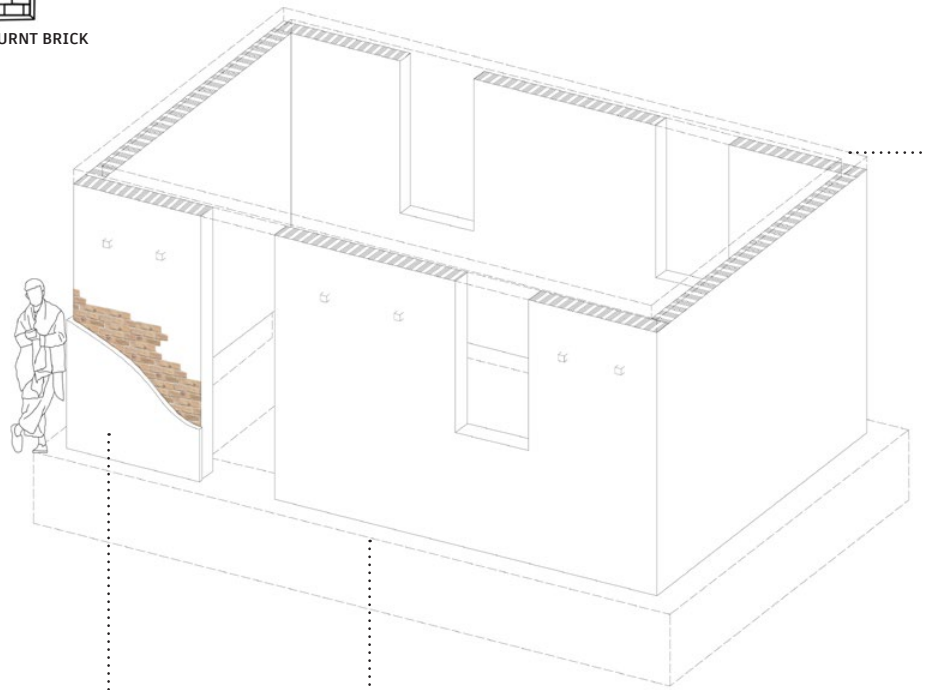
2.04e3 - 2.25e3 BTU/lb

CO2 footprint

0.84 - 0.93 lb/lb



BURNT BRICK



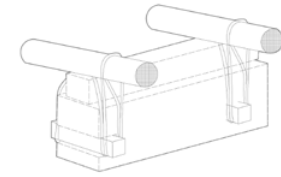
Cement Render

Burnt brick or concrete-foundations are compatible

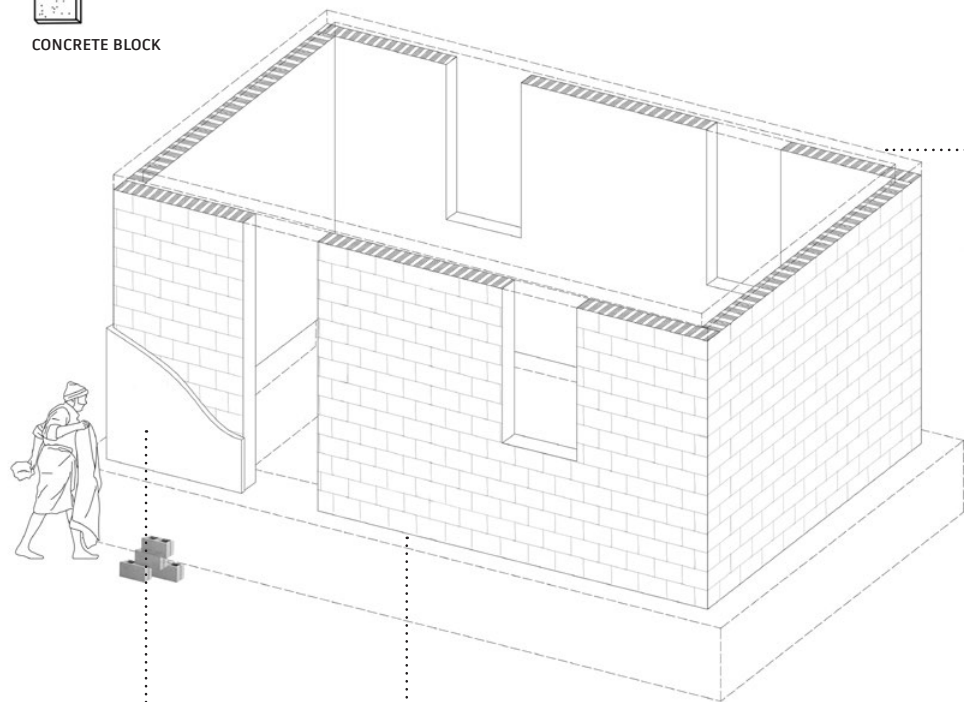
Ring beam and foundation shown dashed

Window and door opening extend to the top of the wall. The ring beam acts as a lintel

Timber, bamboo or RC rings beams are compatible with layered mud walls.



CONCRETE BLOCK



Cement Render

Burnt brick or concrete-foundations are compatible

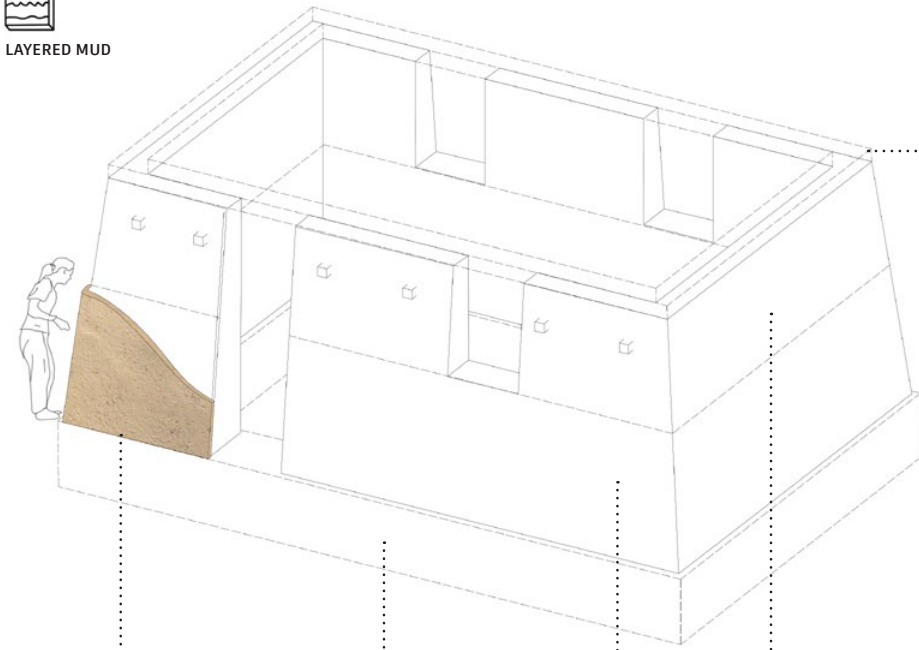
Ring beam and foundation shown dashed

Window and door opening extend to the top of the wall. The ring beam acts as a lintel

Timber, bamboo or RC rings beams are compatible with layered mud walls.



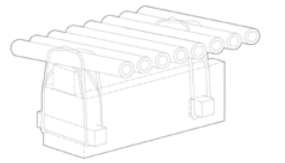
LAYERED MUD



Stabilised Render

Adobe or burnt brick foundations are compatible with layered mud walls.

Stabilized Earth
Level of stabilisation should be informed by potential future flooding level.



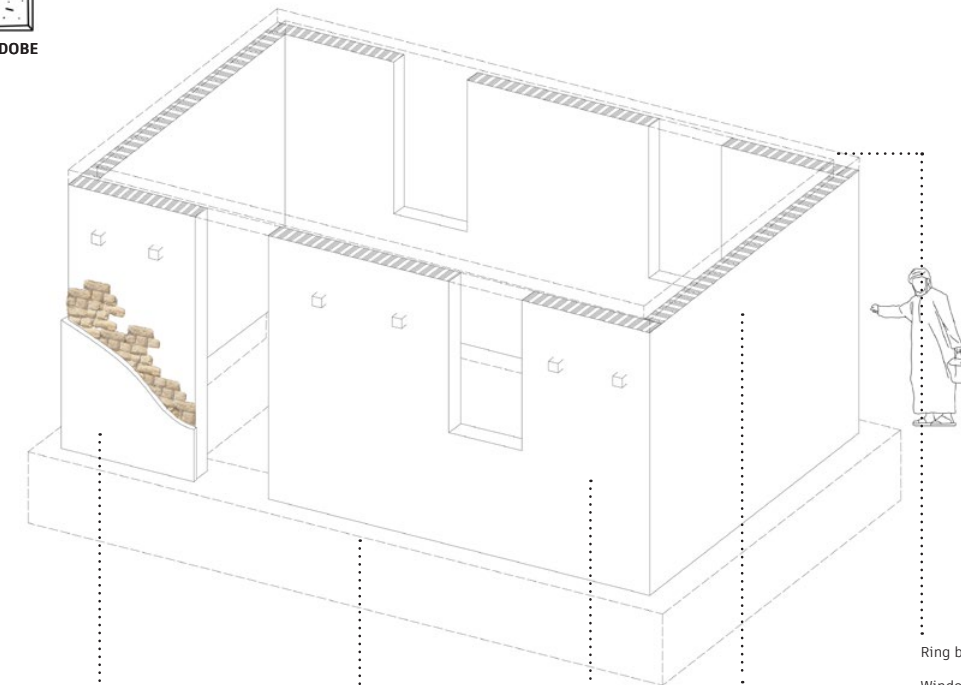
Ring beam and foundation shown dashed

Window and door opening extend to the top of the wall. The ring beam acts as a lintel

Timber, bamboo or RC rings beams are compatible with layered mud walls.



ADOBE



Stabilised Render

Adobe or burnt brick foundations are compatible with layered mud walls.

Stabilized Earth
Level of stabilisation should be informed by potential future flooding level.

Stabilised and unstabilized blocks

Ring beam and foundation shown dashed

Window and door opening extend to the top of the wall. The ring beam acts as a lintel

Timber, bamboo or RC rings beams are compatible with layered mud walls.

BIOS-3: Dreaming of Mars

Over a century ago, Konstantin Tsiolkovsky, a Russian scientist and Space Age pioneer, envisioned colonizing other planets in his books. He saw Mars, not the Moon, as a crucial first step in space exploration. His inspiring vision motivated generations of scientists like Sergei Korolyov, who studied his works to obtain the knowledge required for a journey to the red planet. Later on, under his command, scientists began working on BIOS-3.

BIOS-3 was a controlled ecological life support system (CELSS) that opened in 1972 at the Institute of Biophysics, Russian Academy of Sciences. BIOS-3 was designed as part of the Soviet space program, with the ultimate goal being to develop a bio-regenerative life-support system for cosmonauts on Mars or the Moon. During the 1960s and 1970s and as part of the Cold War efforts, NASA was also heavily involved in developing bio-regenerative life-support systems. Moreover, there was a significant fear of nuclear conflict between the United States and the Soviet Union. As a result, both countries explored the concept of self-sustaining habitats to ensure the survival of their populations and to prepare for potential post-nuclear war scenarios.

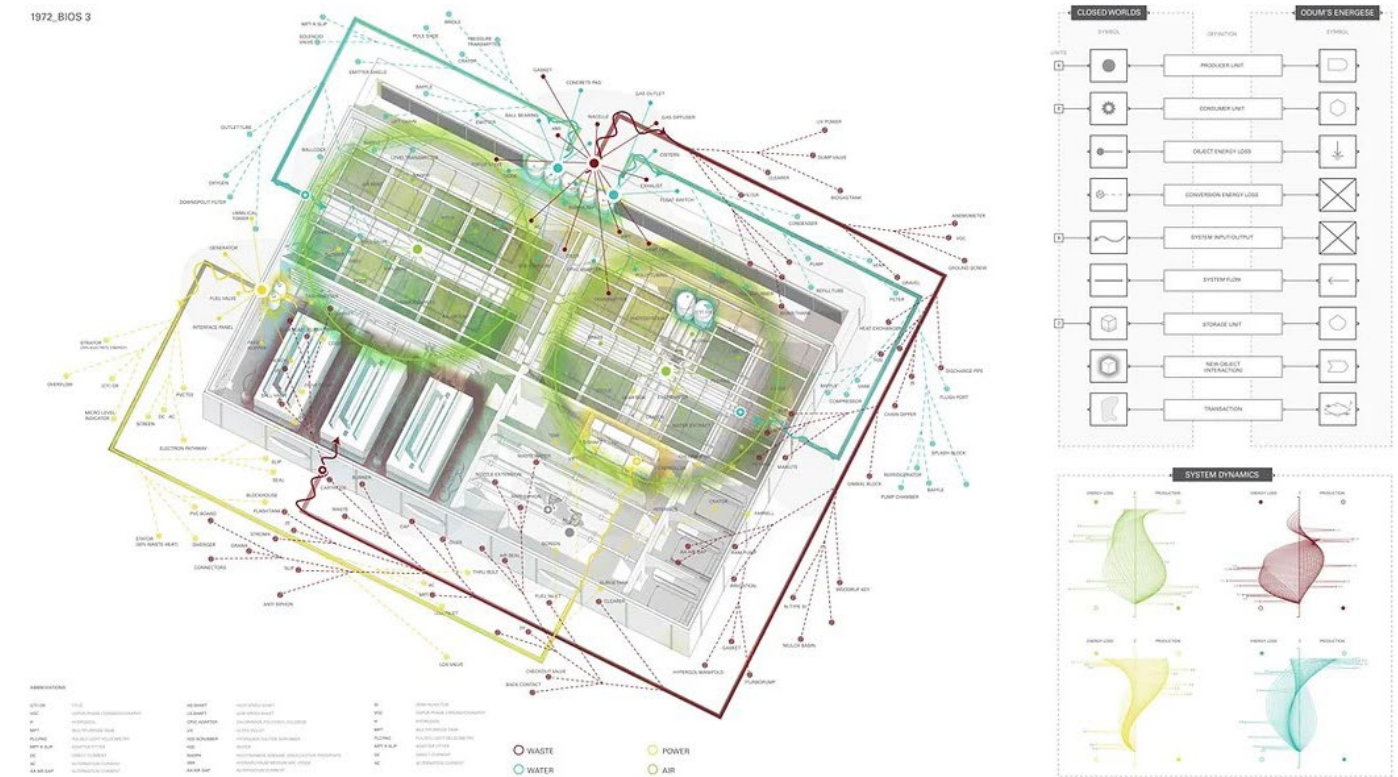
As an interdisciplinary research endeavor, BIOS-3 brought together biologists, engineers, chemists, and agronomists to develop a plant-based life-support system. The discovery of the value of chlorella, a single-celled green algae, became the main motivator for this experiment. In 1965, early prototypes at the same site demonstrated that algae could regulate oxygen and carbon dioxide levels in an environment with human respiration and nutrient cycling.

The Bios-3 experiments involved constructing three airtight, closed-loop ecosystems where different combinations of plants and microorganisms were maintained to simulate a miniature biosphere.

The goal was to understand the intricate relationships between living organisms and their environment within a controlled, closed environment. While not fully self-contained, the system relied on electricity from a nearby hydroelectric plant and air tanks to maintain stable atmospheric pressure. Additionally, the facility effectively managed solid and liquid waste produced by the crew.

The Project shed light on the challenges faced when testing closed environmental systems on a small scale. Despite the high level of control within the phytotrons and the facility, trace elements like nickel, aluminum, and titanium were detected. Fortunately, these elements did not have any adverse effects on the occupants or the plant life. However, in a small-scale setting, such problems can multiply over an extended period. Another challenge was the unexpected patterns in the constitution of microbial communities which are uncalculated and thus not predicted by the closed system design. This area could be the most demanding challenge for future space missions in our aspirations to visit Mars.

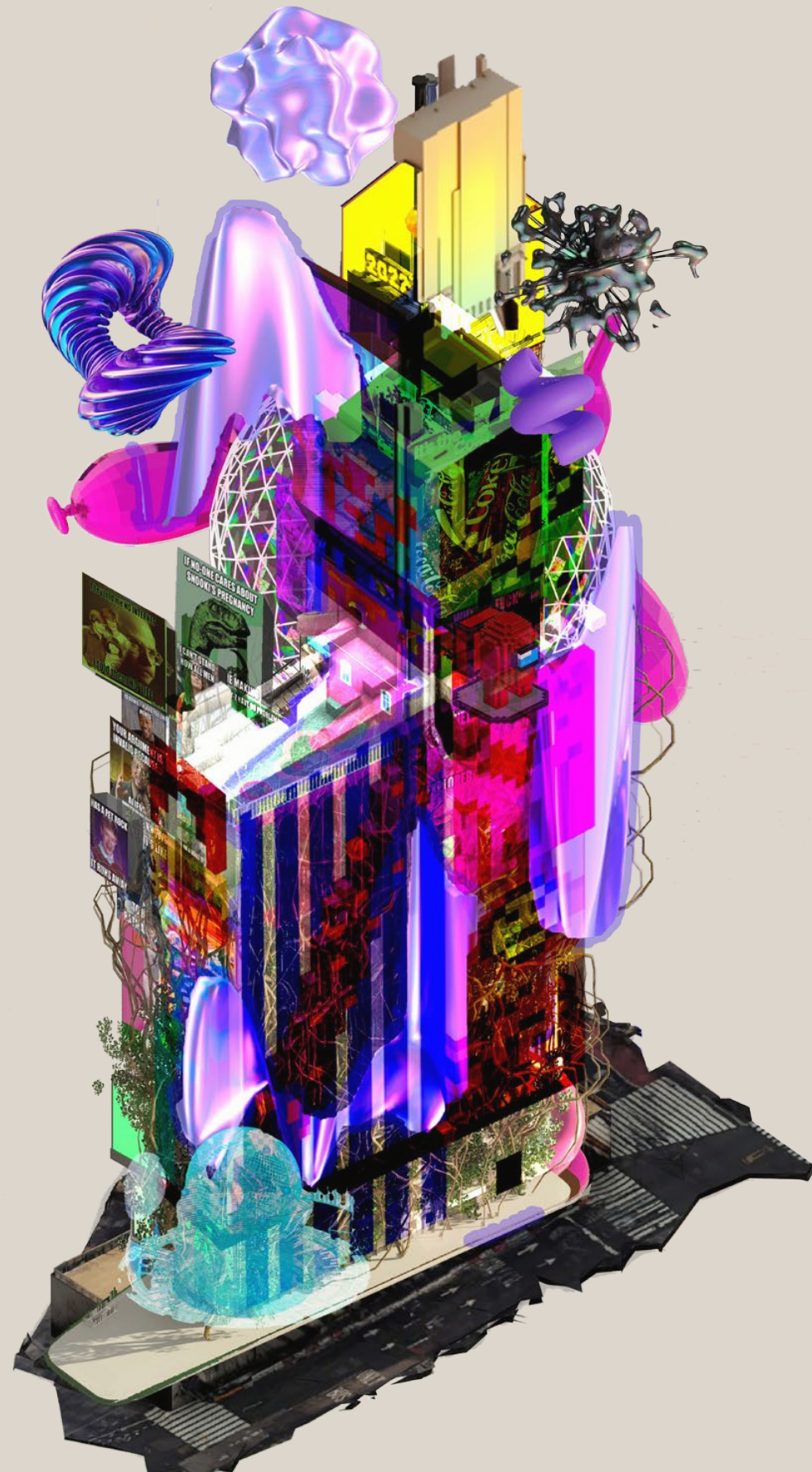
Nevertheless, the most substantial accomplishment of BIOS-3 was its autonomy of control. It was a system designed to be governed by those residing in it. The success of BIOS-3 stemmed from its limited scale and its precise management of occupancy (three crew members) and



vegetation/algae growth protocols. Large-scale operations require more significant financial resources, as demonstrated by Biosphere-2. Still, they also demand more sophisticated systems to address unforeseen issues that can be magnified in confined spaces such as Closed Ecological Life Support Systems (CELSS).

The Project remains at the forefront of ecosystem research and has practical applications for Earth's sustainability and our preparations for Deep Space exploration. Over the years, researchers in closed ecological systems have increased, indicating a growing trend. A conference on closed ecosystems was held in Aomori, Japan, in 1992 in connection with the opening of the Institute for Environmental Sciences, which will have a sizeable experimental life-support facility similar to Bios-3.

This showcases the scientific community's increasing conviction in their significance. These ecosystems are crucial for future life support in space and serve as tools to study the fundamental principles of Earth's biosphere, aiming to comprehend better the stable existence of our planet's life-sustaining system.

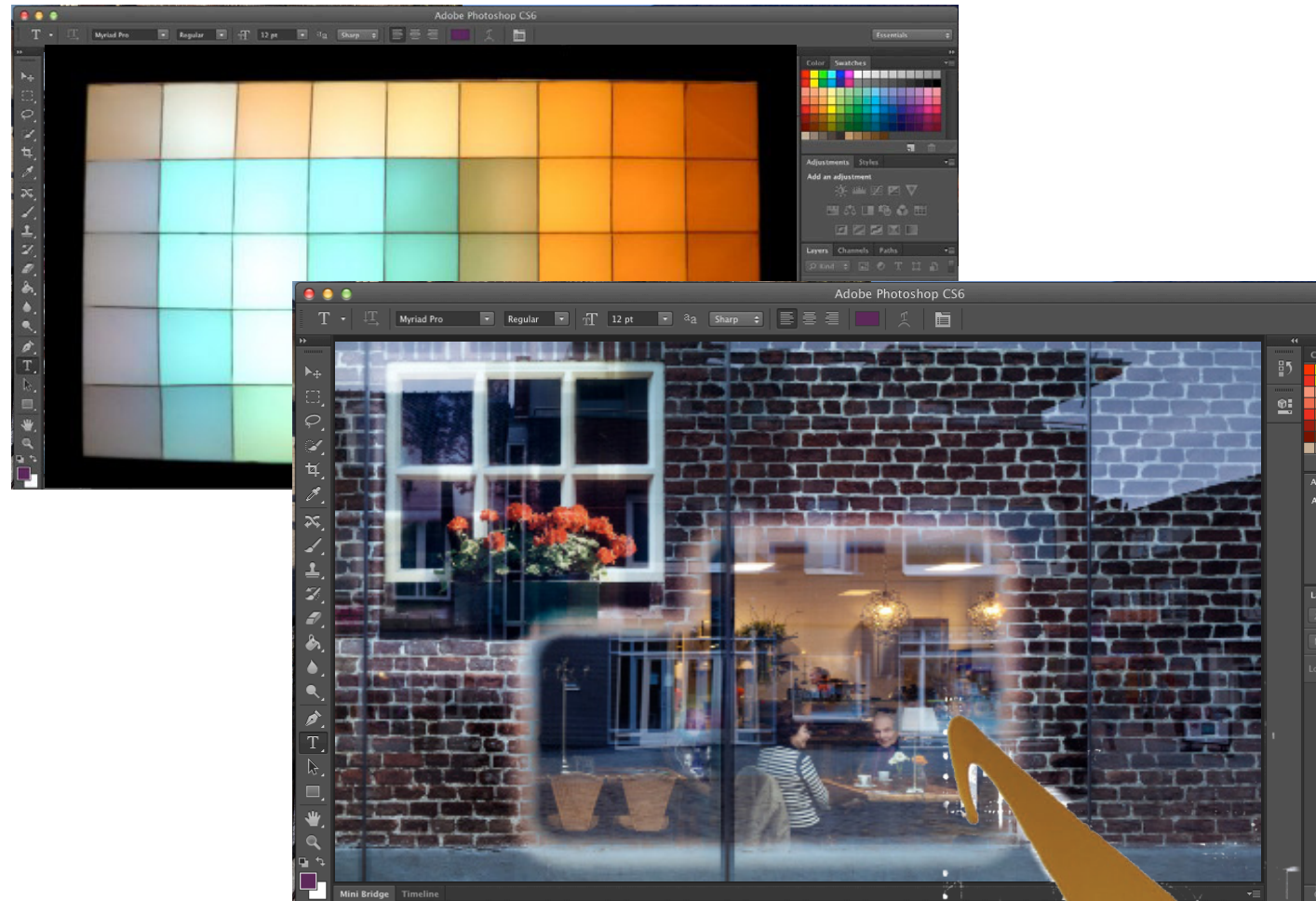


Translation: Post Digital Materiality

Critic: Michel Helbig and Corneel Cannaearts

Summer '23

With the development of virtual reality and technology, we are experiencing a drastic change in both online and offline worlds. The physical reality is being recorded and represented as a digital reality with increasing frequency and unprecedented accuracy. At the same time, symbols and phenomena that originally existed only on the internet are also eroding the real life world that we have been extremely familiar with for thousands of years. They form an interesting loop between them, which supports each other and ultimately leads to a hybrid reality we call hyper reality. In this semester's Architecture of Compression project, what we did was explore possible directions for hyper reality. In research field guide, we analysed the cycle from physical to virtual and then to physical through numerous case studies. The material and dematerialization in this process. And the Uncanny Valley effect brought to us by rendering techniques that become increasingly realistic and indistinguishable to our human eyes. Afterwards, we conducted research on the most detailed online version of current reality, which is Google Earth. We have found that in reality, there can only be multiple versions of buildings online in a single form. This may be an unintentional move now, but it can bring great significance in the future.



FUCK 3D

In its traditional sense, translation refers to the conversion of text from one language to another while preserving its original meaning. However, when the concept of 'translation' transcends the realm of words and extends to physical objects, the question arises: Can this translation still accurately convey the inherent characteristics and meanings of the translated object?

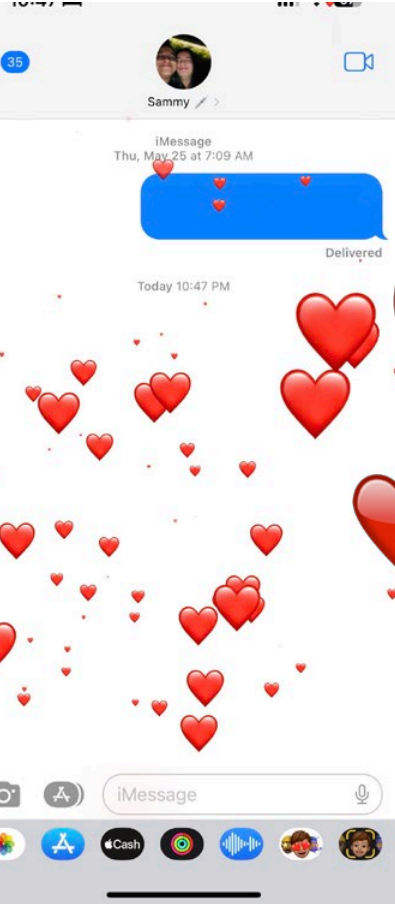
With the rapid advancement of computing technology and the emergence of A/X/V/MR displays, virtual worlds have become the counterpart to our physical reality. The conversion of data between these two realms – the physical and the virtual – is undoubtedly a form of translation. We have witnessed a peculiar phenomenon where real-world buildings are imbued with characteristics typically associated with the digital realm, rendering them illusory and exaggerated. Conversely, there is a concerted effort to import real buildings into virtual environments as realistically as possible.

This transformation has endowed physical architecture with attributes of the internet, transcending its traditional role as a purely functional space. Simultaneously, the virtual world is mapping and becoming a second reality. In this process, everything is being deconstructed and then recombined in novel ways.

We have analyzed the psychology of users and designers, representing the two poles of this 'translation,' through the lens of Field guide. From architecture as a mere image to the projection of internet culture onto physical reality, we have conducted typological research on this type of translation.

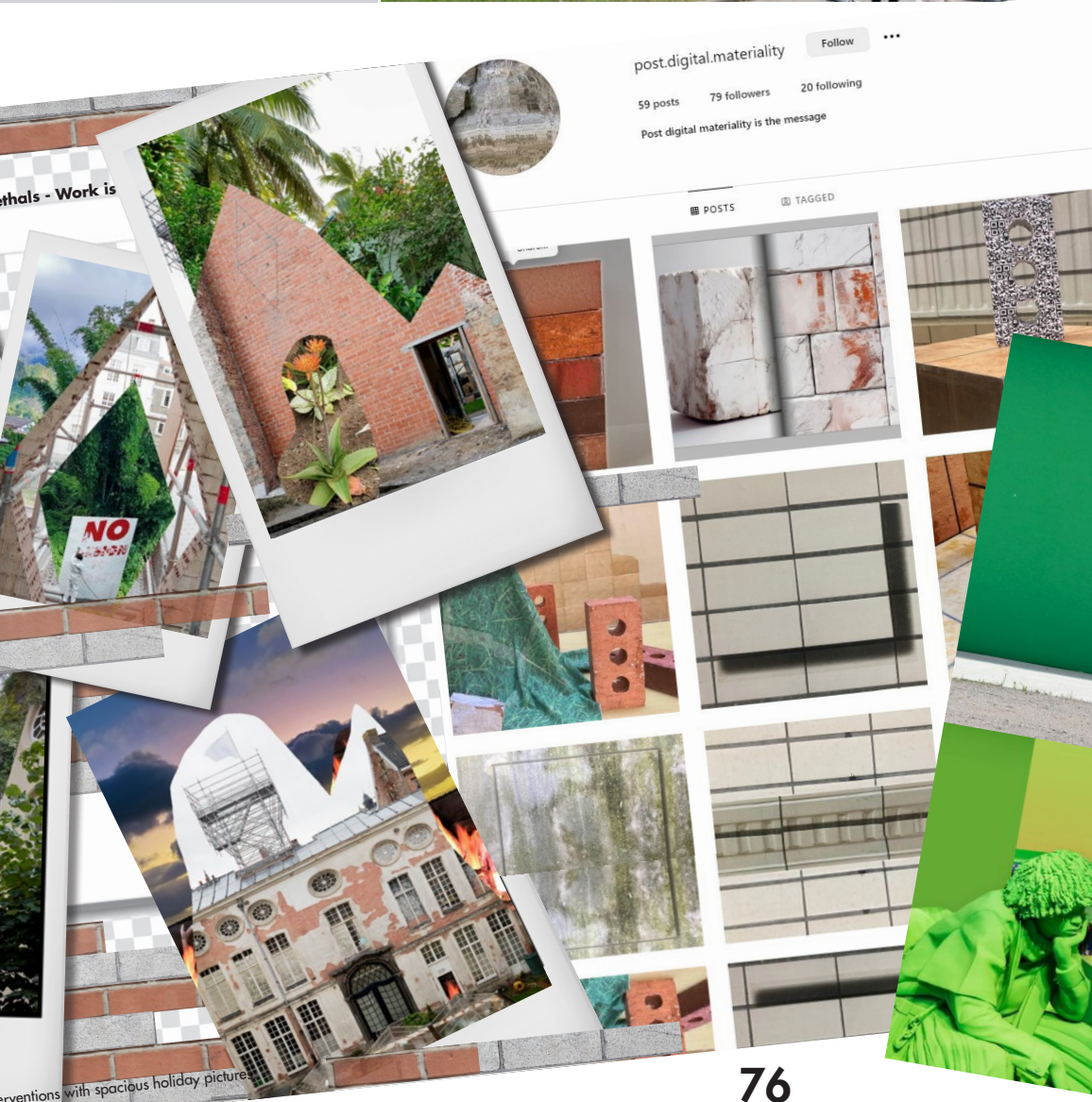
Our methods include the blurring and pixelization of concrete objects, as well as the physical manifestation of online environments and digital artifacts, combined with the unique characteristics of design software. Through this approach, we attempt to uncover the veil of social behavior from a methodological and logical perspective, fostering discussions on the implications of this convergence.

The boundaries between the physical and virtual realms are becoming increasingly blurred, giving rise to a new paradigm where the two worlds coexist and influence each other. This 'translation' challenges our traditional understanding of architecture and prompts us to reevaluate the role of design in shaping our experiences across both realities.



The Last Like sculpture direct print forex, wood construction, steel v 400 x 400 cm

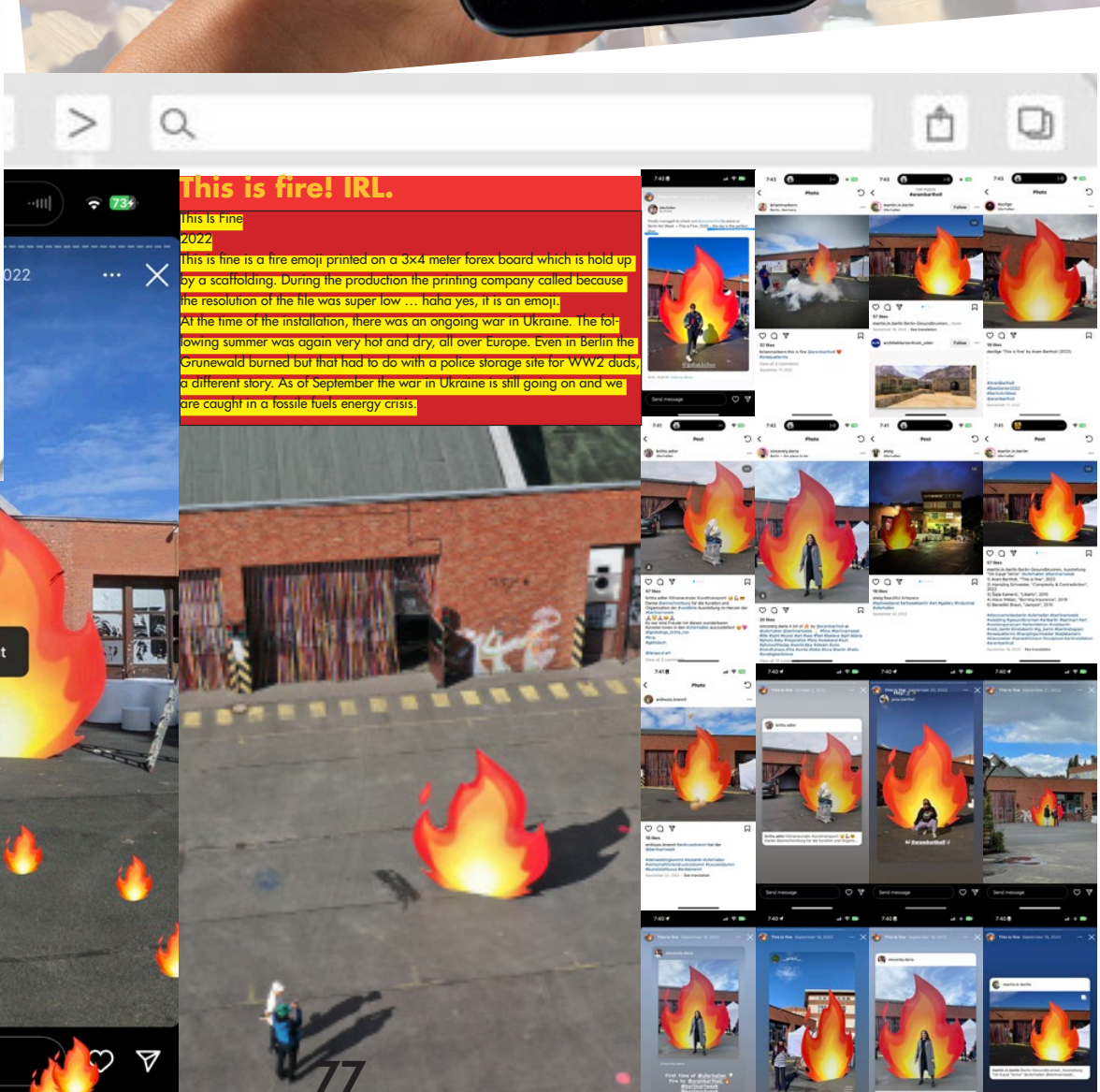
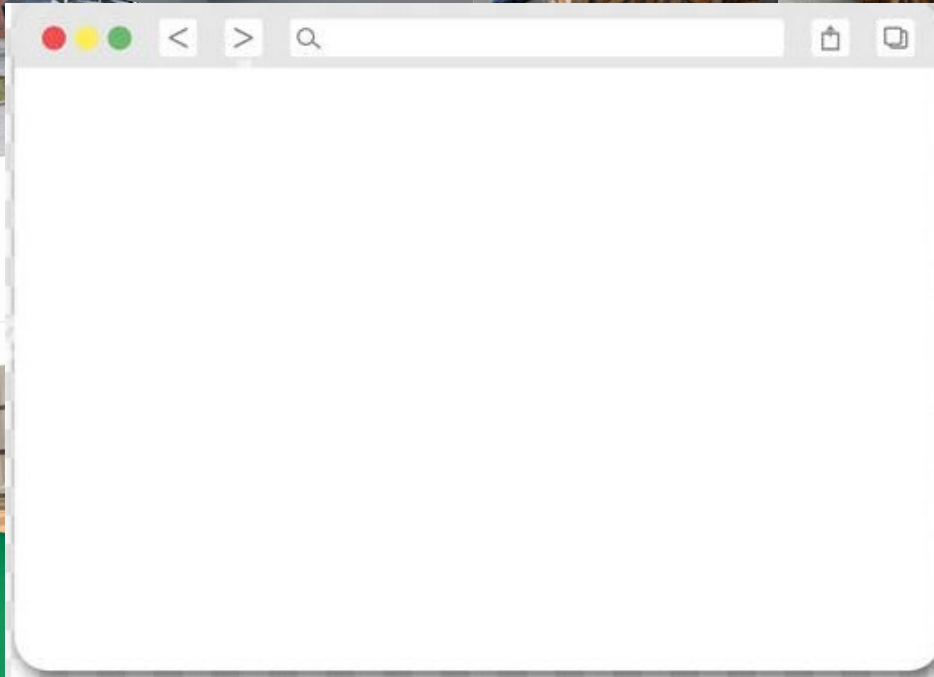
After the piece was and setup in public clear a heart emoji attracts quite so lot of by-passer pictures and po the weekends works almost Photos which again asking hearts. The e the work into overused s obsolete. T symbol fo Instagram it started lonely. S makes u

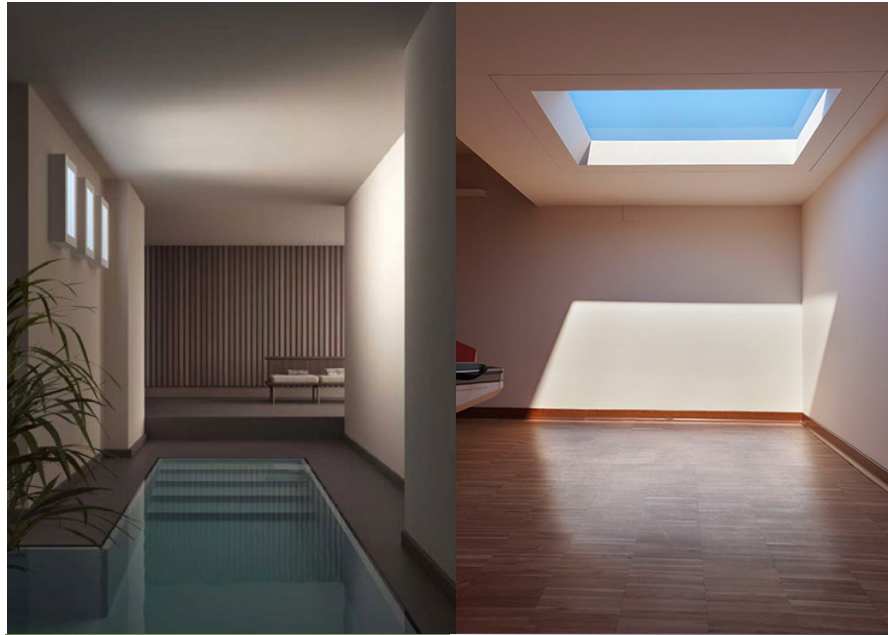


post.digital.materiality Follow

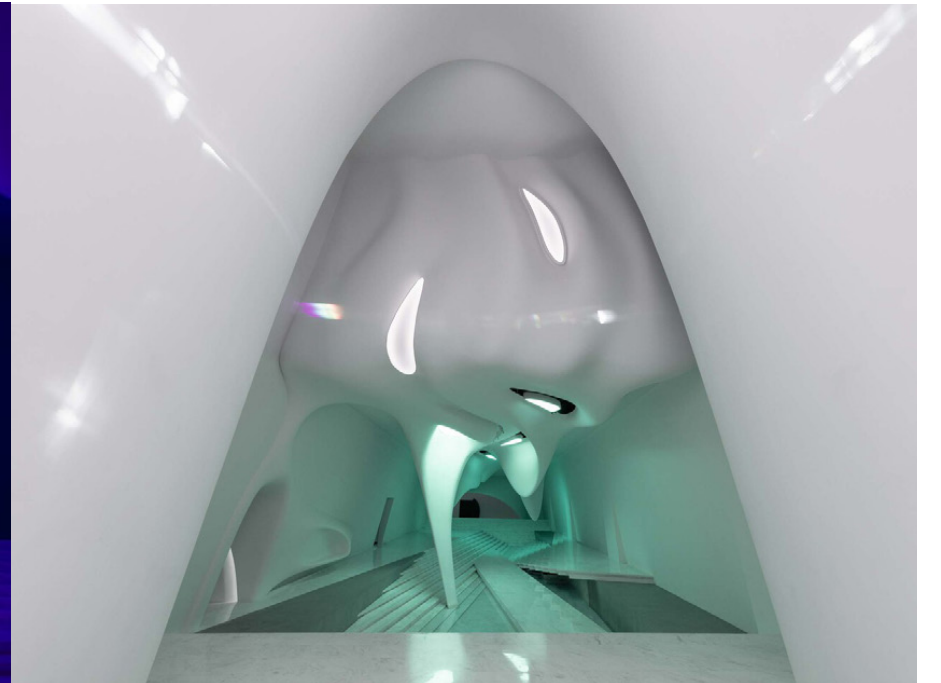
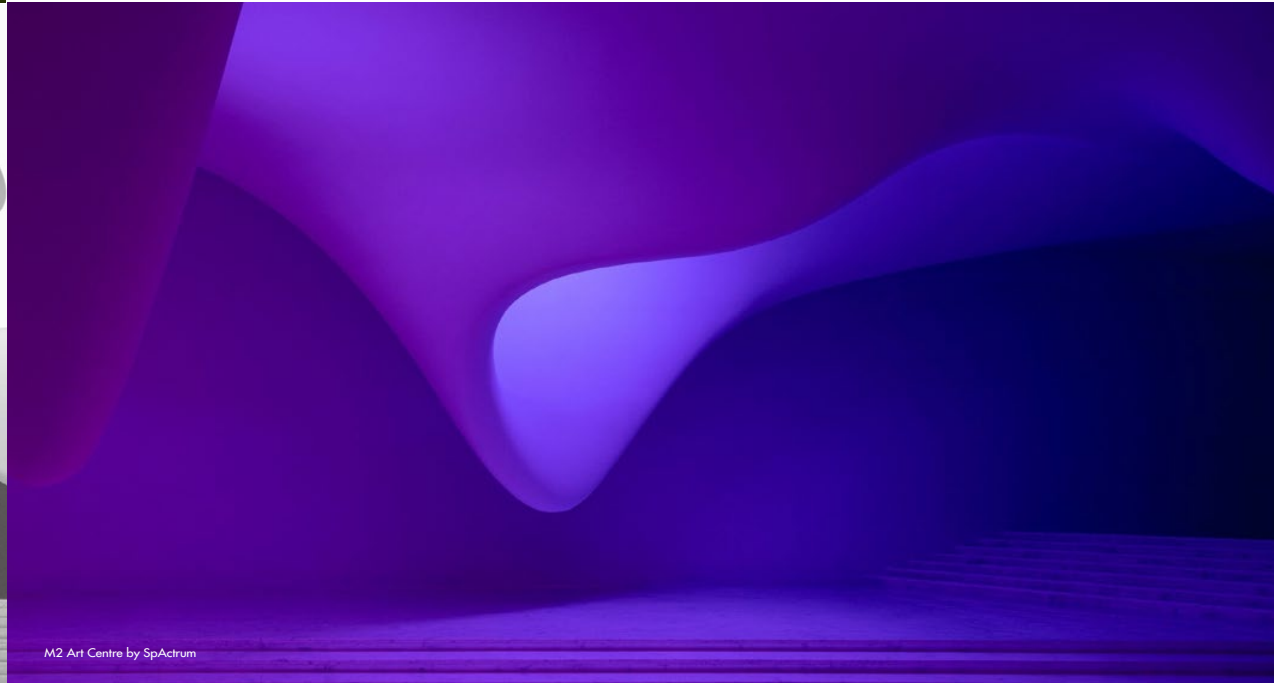
59 posts 79 followers 20 following

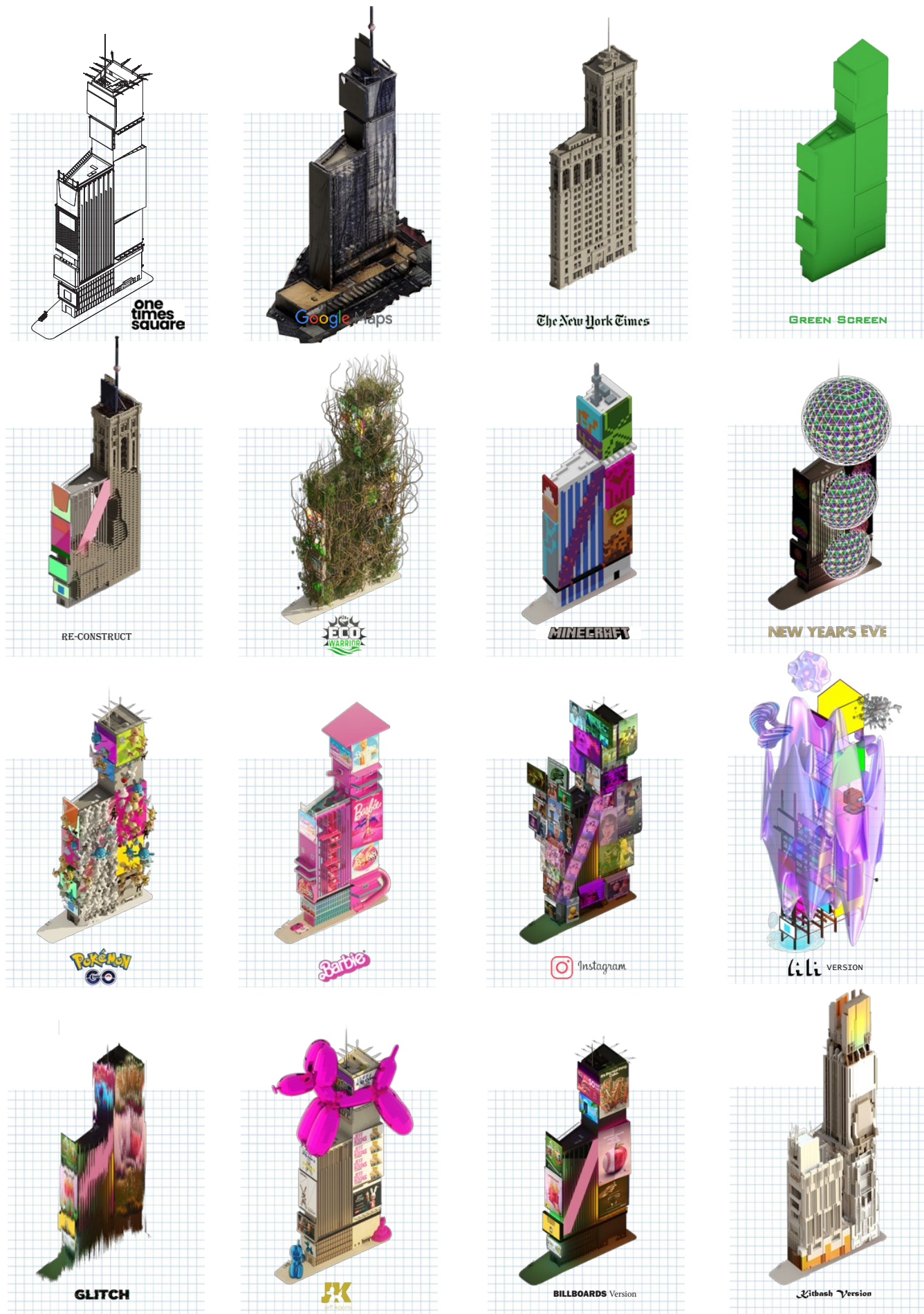
Post digital materiality is the message





Render Vs Real





Lost in the Multi-verse

One Times Square has experienced flourishes of creative vibrancy and periods of great depravity and transformations, yet it remains at the crossroads of the world. It is also the home of the New Years Eve ball drop, with most of its revenue coming from billboards, the tower's interior only has a couple of tenant's and remnants from past businesses. But now there is a proposal to revamp the building and finally make use of the empty space and create a platform for the public to experience the history of times square in virtual reality.

The building has already been transformed a multiple times and their have been speculations on its future transformations. I look at it from a material perspective and want to speculate on its different mediated versions that could be its possible physical reality in the future. For example, starting with its Google Earth Version and later speculating versions that would target a certain audience and control its content and its

physical appearance on an online platform. As it is a public space I chose content from games, art, movies, protest movements, took inspiration from online cultures like the glitch effect or social media/memes, that would use One Times Square as a medium to promote or visualise their content/agendas.

In the future, I want to speculate the manifestation of these different online realities into a physical reality that could just be an empty shell of a building with screens and interfaces. With screens and interfaces integrated into the buildings physical structure, it could become a dynamic canvas for showcasing content, from real-time protests and movements to artistic expressions and viral social media trends. These mediated realities might manifest through augmented reality, holograms, and projection mapping, providing a blend of virtual and physical worlds to create a hyper-reality.

