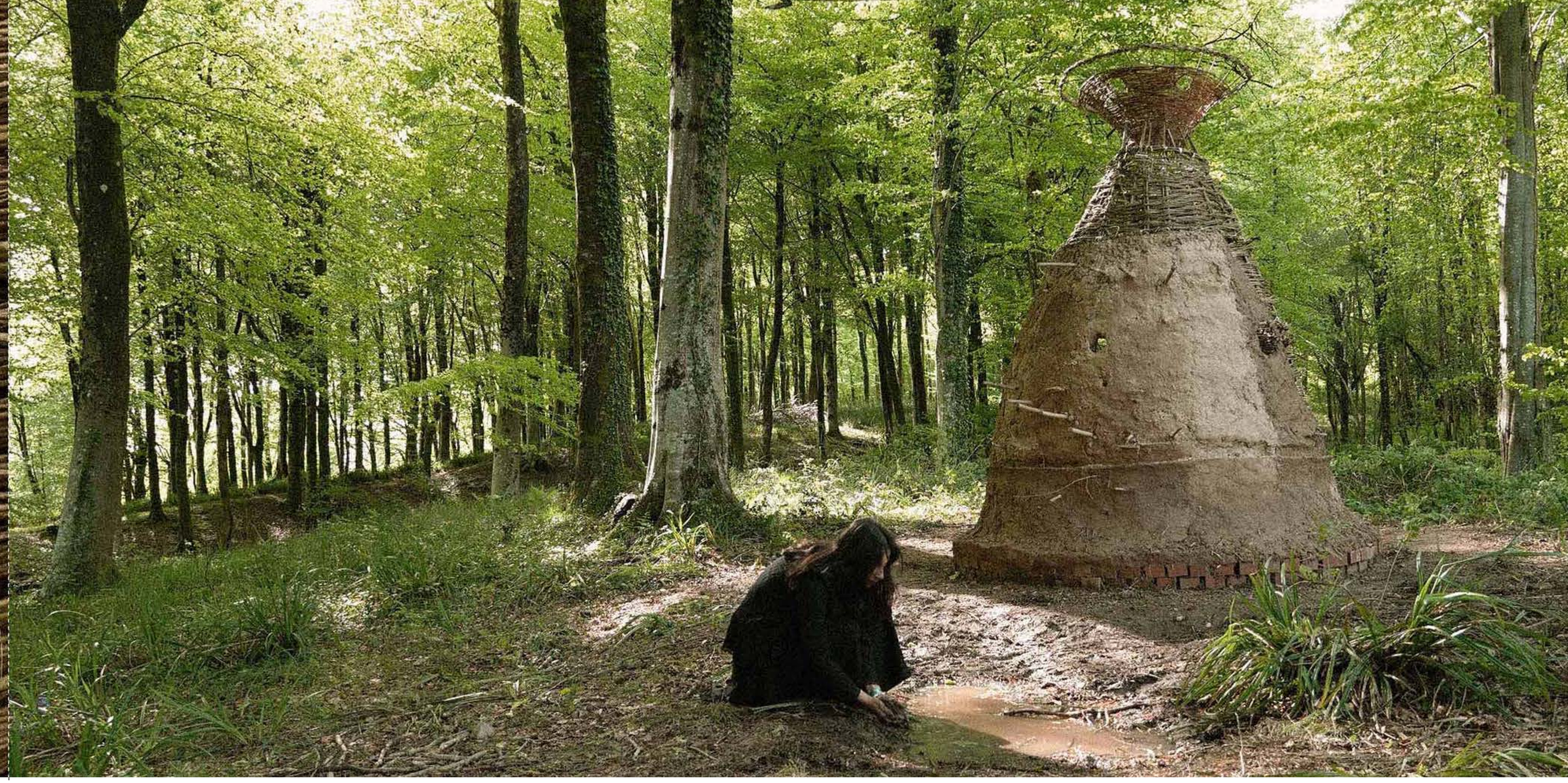


PORTFOLIO

HAFSA SYED

- **AA Diploma | RIBA Part 2 | Architectural Designer**
- M.Arch at The Architectural Association School of Architecture, London, UK
- BA (Hons) Architecture at University of Westminster, London, UK

Portfolio Contents

The following body of work explores the intersections of ecology, material culture, and architecture.

It re-imagines architecture as a catalyst—one that unites multi-species communities in the face of environmental crises.

ACADEMIC PROJECTS | PROFESSIONAL PROJECTS | DESIGN AND BUILD PROJECT

more projects available at **www.hafsasyed.com**

01

N.E.S.T
Network for Endangered Species Typologies

PROJECT	Masters Thesis Project, Diploma 12, Architectural Association, London, UK
YEAR	2023-2024
TUTORS	Inigo Minns, Manijeh Verghese
GRADING	High Pass Grading with **AA Distinction Award in Technical Research**

N.E.S.T (Network for Endangered Species Typologies) is a distinction-awarded Master's thesis exploring the potential role of architecture in supporting bird conservation. It proposes NEST typologies – self-built, adaptable structures designed to connect birding communities across critical migratory flyways – in the context of the endangered house martin.

By merging contemporary and historic birding practices, it provides spaces for listening to birdsong, a dying citizen science and ecosystem monitoring practice. As such, *N.E.S.T* forms architectural nodes at a local and trans-regional scale, supporting collective observation, knowledge exchange, and ecological stewardship to strengthen conservation networks.

The research draws inspiration from *Hima al-Tyur*, bird towers once translated throughout the Islamic world to collect pigeon droppings as fertilizer. As industrial farming reduces their necessity, *N.E.S.T* seeks to revive their cultural function known as *Islah* – translating to peacemaking and 'reform' – focused on repairing relationships between humans and nonhuman species.

Adapted pigeon tower typology for the 'Kotu Creek' birding community in The Gambia – integrating local material culture with birdwatching practices

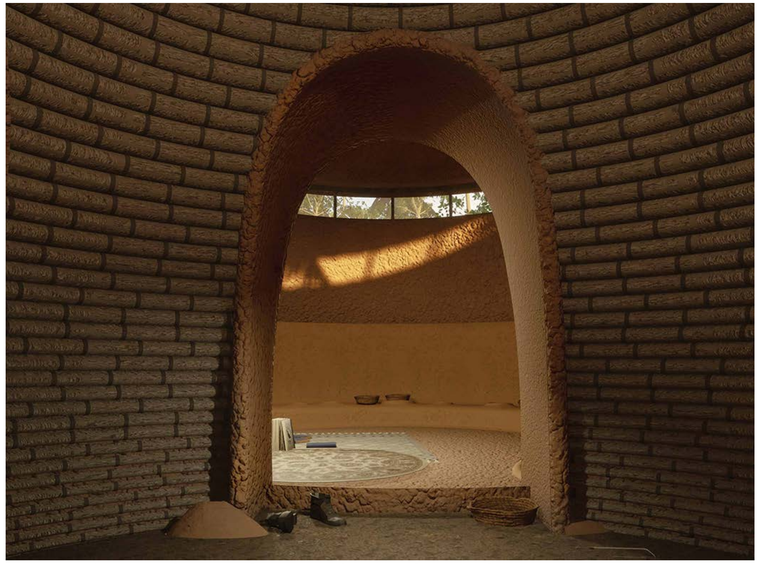
Repair, Reallocate, Restore

In 2023, Gambia's Kotu Creek wetland, a vital wintering ground for house martins, suffered a devastating avian flu outbreak, killing over 7,000 birds. The Gambian Bird Watchers' Association, with limited resources, mobilized hundreds of volunteers to bury the birds. Every year, they seek international funding and support for conservation efforts.

The *N.E.S.T* proposal envisions a network of sites promoting cross-geographic communication and financial redistribution along migratory flyways. By translating ecological barometers, the project preserves material cultures and highlights plural ways of caring. Architects act as facilitators, channeling resources to promote ecological and cultural preservation.

Archival images of The Gambia's 2023 Bird Flu Outbreak, sent by 'Yaya Barry' the head of the Bird Watchers Association in the Gambia

Interior Skylight View of the Acoustic Listening Chamber of Gambian NEST

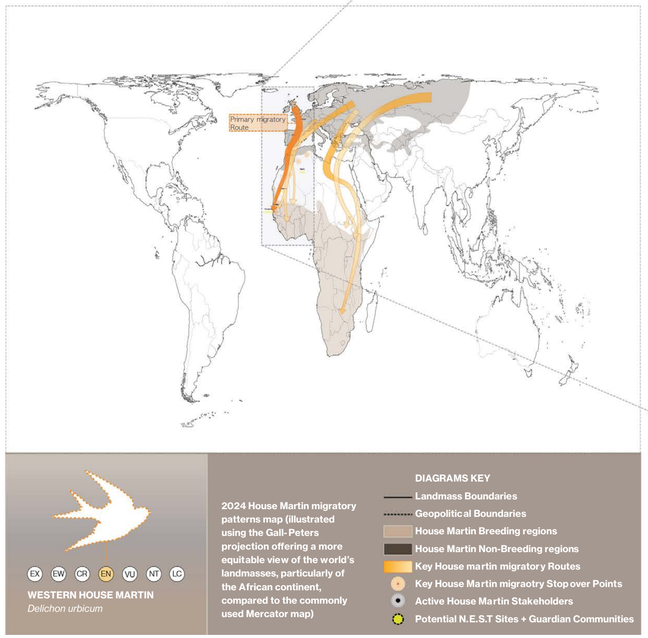


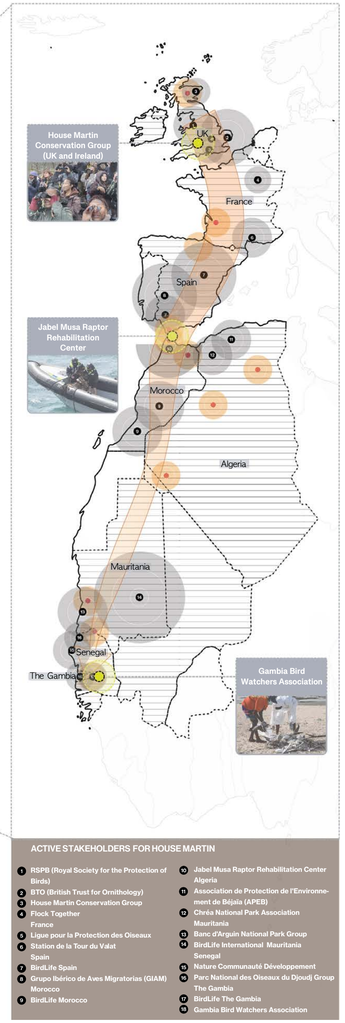
Interior View of entrance to Storage and Contemplation Chamber of Gambian NEST

New Rituals of Care

The dawn chorus – the collective vocalization of birdsong at dawn – serves as an acoustic marker of ecosystem health, an interspecies dialogue fading from human memory. *N.E.S.T* proposes the creation of local structures for deep listening, reconnecting listeners to this embodied citizen science and historic, cross–cultural ritual practice.

These self-built pilgrimage sites provide a distinct yet adaptable typology for birding communities, fostering new rituals such as the *Nest Repair Festival*, where communities rebuild and expand their NESTs. For the endangered house martin, this exploration connects key summer grounds in the UK reaching wintering sites in The Gambia. Translated across geographies, *N.E.S.T* becomes a living archive of ecological knowledge and local material culture.





N.E.S.T communities are encouraged to join the Repair Festival, held a week before International Dawn Chorus Day (celebrated annually on May 4th, where birdwatchers tune in live to listen to the consecutive chorus across the globe)

Developing the ‘British NEST’

In an age dominated by globalized supply chains, my work emphasizes the importance of locally sourced, bio-based materials. Through designing a ‘British NEST,’ I brought these principles to life using local willow weaving techniques and cob (adobe) construction.

By hosting community workshops, I tested the material properties of willow at a 1:1 scale, documenting its tensile strength, flexibility, and suitability for collective weaving. This process led to the curation of weaving patterns that are structurally robust yet accessible for beginners, ensuring both durability and ease of construction for the ‘British NEST’ prototype.

Test 1: Community workshop for 1:1 living willow tunnel

Test 2: Community workshop for 1:1 living willow dome

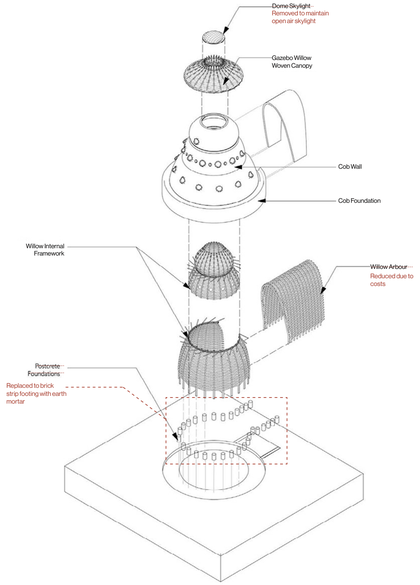
Test 3: Community workshop for 1:1 living willow arbor

Interior of 1:1 NEST prototype built in Hooke Park Woodland, Dorset, South West England

Weaving a NEST

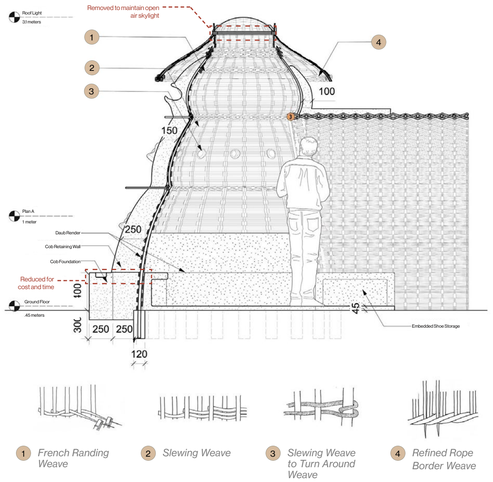
The building process, termed *communal nesting*, emphasizes an approach that goes beyond construction – focusing on cultivating community bonds through collaborative weaving and building.

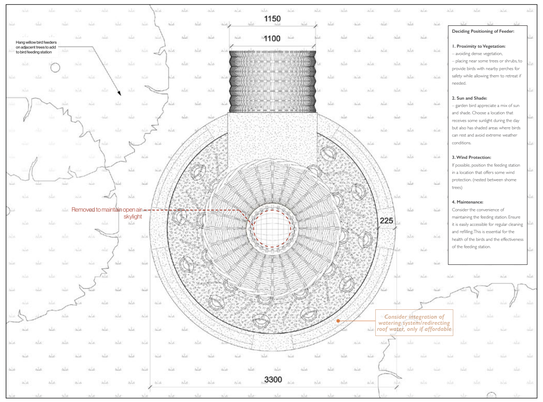
Communal nesting becomes a spatial act of ecological stewardship – encouraging more symbiotic and informed relationships between humans, the immediate environment, the material life of a built structure, and the species that interact with the NEST.



- - - - *Elements adapted on site, during build process*

Architectural drawings that evolved on site in response to site conditions and changing funding parameters, illustrating the adaptability required in leading the design and build construction process





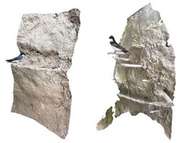
The NEST Typology

A mutispecies ecosystem barometer

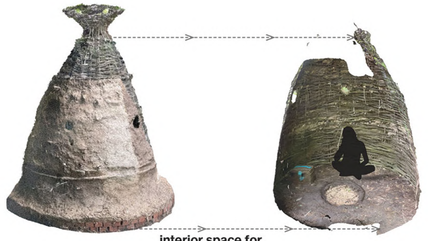
A proposed NEST is a collectively-built, adaptable typology that celebrates regional differences through local weaving and earth construction methods. It serves as a living document of environmental health, based on it's observed multi-species interactions.

The primary framework for a NEST typology entails:

1. **Exterior earth render** – adaptable for nesting and feeding spaces for local songbirds.
2. **A conical form** – designed for deep listening to the local bird eco-scape, overtime developing bird identification skills for citizen science
3. **A structural interior weave** – translatable vernacular across regions
4. **Refined yet beginner-friendly weaves** – foster community through collective weaving, developed and tested through hosting multiple workshops in community gardens



1
Shapeable Earth Render



2
Conical Form

3
Structural Interior Weave

4
Refined yet Beginner-Friendly Weaves

Snails inhabiting cob niche, with cantilevered willow for perching songbirds

Common Blue mint beetle (Chrysolina coerulans) attracted to birdseed niche of NEST

NEST interior with birdseed – encouraging rituals of feeding and listening

“Humans are not separate from the web of life; we are kin to all living things, co-evolving in symbiotic relationships.”

– Donna J. Haraway

A locally endangered Blue Tit (Cyanistes caeruleus) documented visiting and feeding on the completed and constructed NEST structure

02 Illuminating the Indus

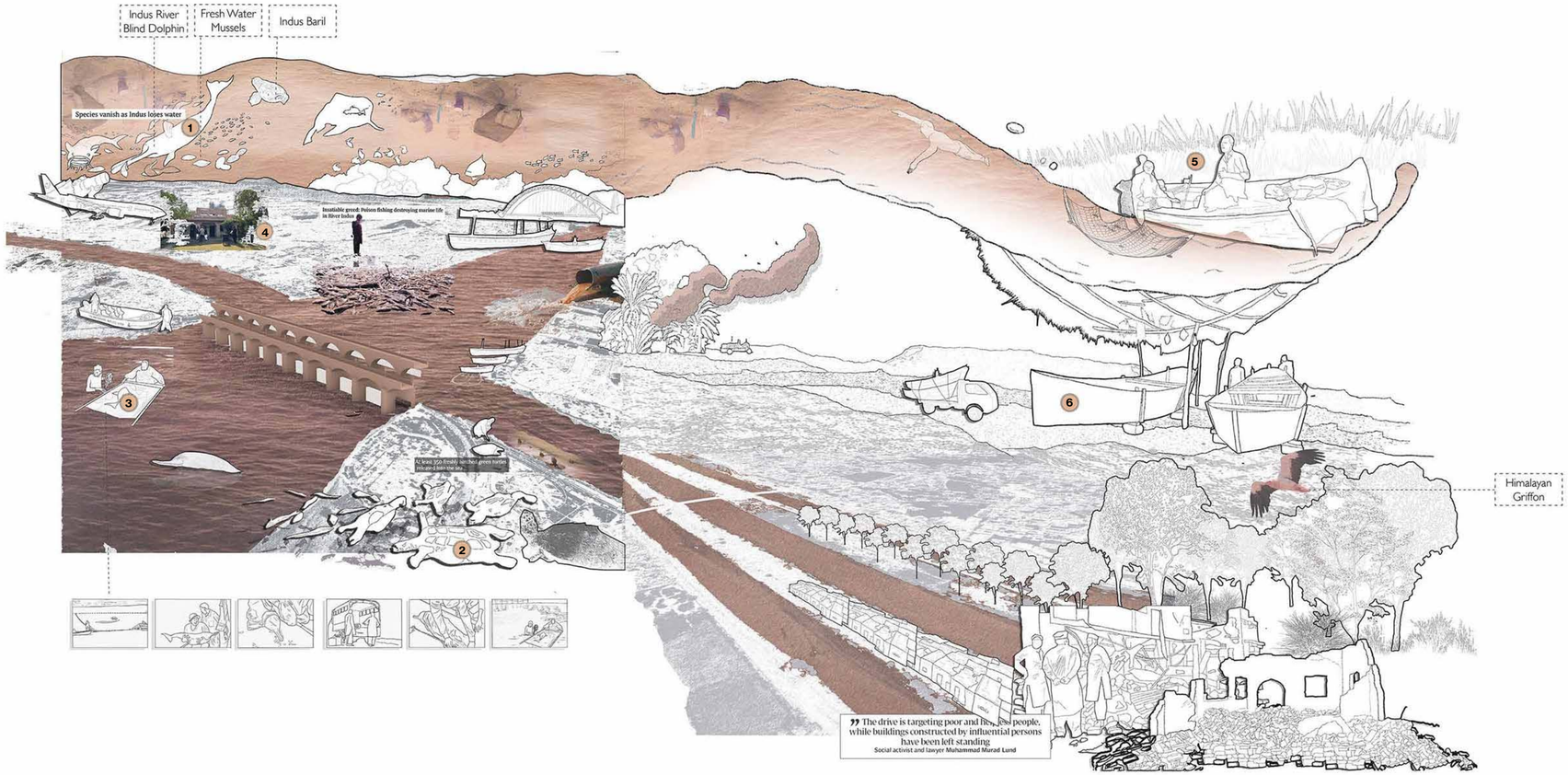
Decentralized Epistemologies of Ecology

PROJECT	Academic Research Project, Diploma 13, Architectural Association, London UK
YEAR	2022-2023
TUTORS	Merve Anil, George Masood
GRADING	High Pass Grading with **Distinction in Technical Research**

Illuminating the Indus is a grant-awarded research and design proposal developed in collaboration with the Sindh Wildlife Department in Sukkur, Pakistan. The project introduces a counter-mapping method for the Indus River, challenging colonial portrayals that have long marginalized indigenous and local ecological knowledge.

Building on ongoing local efforts to protect the endangered Indus River Dolphin, the project proposes a decentralized, community-driven approach to ecosystem monitoring and river mapping, focusing on collective stewardship for sentient lifeforms along the threatened Indus Riverbank ecosystem.

Full Project Video



1 *Endangered Indus River Dolphin (locally known as "Bulhan")*

2 *Endangered Indus River Turtle poisoned due to elevated pollution levels in the Indus River*

3 *Indus River Dolphin rescue mission conducted by local Wildlife Department and fishers*

4 *Interior of the Local Government Wildlife Department, Sukkur*

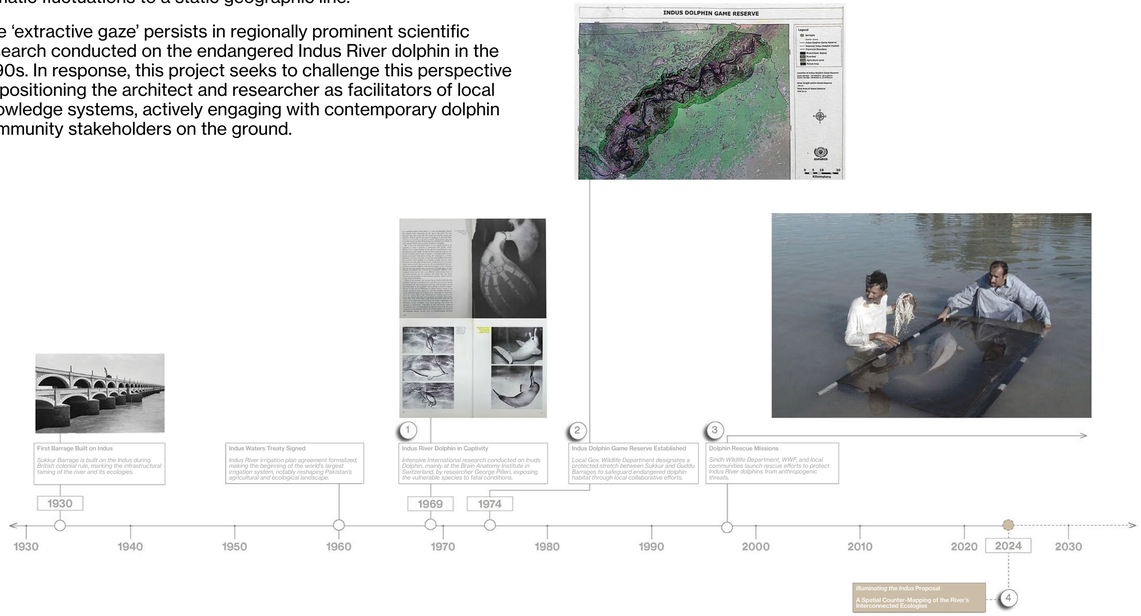
5 *On-site interview with fishers – locally referred to as custodians of riverbank*

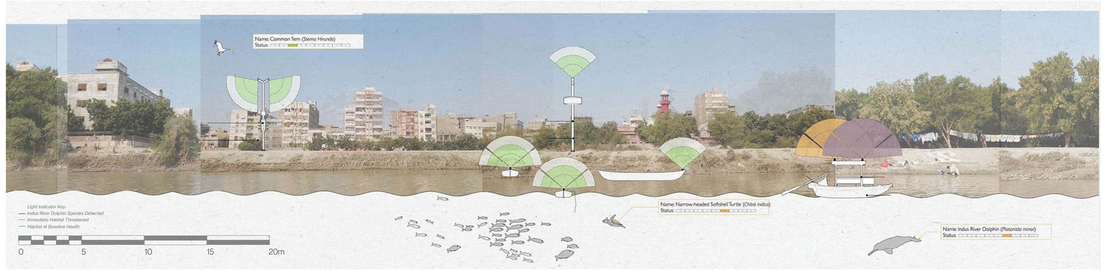
6 *Boatmakers' workshop in Sukkur, utilizing local timber and lumber*

Colonial Cartographies

Sukkur is home to the first barrage constructed on the Indus River during British colonial rule in 1932, marking the infrastructural taming of the river and its surrounding ecologies. This thesis critiques the 'colonial gaze' embedded in cartographic representations of the river – readings that disregarded indigenous understandings of its ephemeral nature, instead reducing its dynamic ecologies and climatic fluctuations to a static geographic line.

The 'extractive gaze' persists in regionally prominent scientific research conducted on the endangered Indus River dolphin in the 1990s. In response, this project seeks to challenge this perspective by positioning the architect and researcher as facilitators of local knowledge systems, actively engaging with contemporary dolphin community stakeholders on the ground.





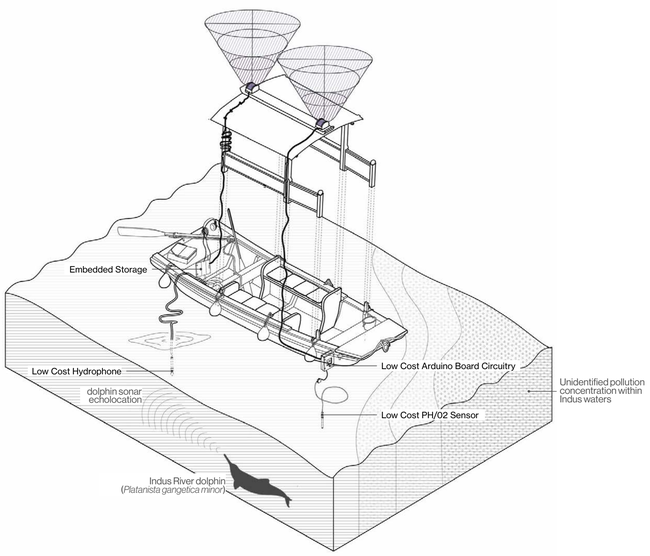
Redesigned office space for Mr. Adnan, the head of the Sindh Wildlife Department in Sukkur, Pakistan.

The Indus River Dolphin

From Extraction to Care

Of a total of six species of river dolphins in the world, all of which are globally endangered, the Indus River dolphin (*Platanista gangetica minor*) is the only species whose population is currently on the rise, primarily due to ongoing conservation efforts by the Sindh Wildlife Department in the Sukkur region.

Illuminating the Indus builds on existing initiatives while introducing researched, passive, and non-invasive monitoring systems. This provides alternatives to current data-tagging methodologies, offering agency to sentient lifeforms and creates a publicly accessible form of mapping river habitats.



Light Indicator Key:
Indus River Dolphin Species Detected
Immediate Habitat Threatened
Habitat at Baseline Health

Indus River Dolphin Detection Vessel

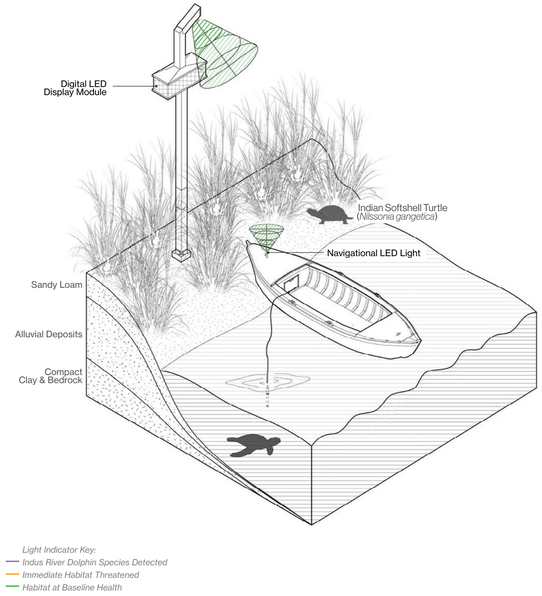
Proposed acoustic monitoring of the Indus River Dolphin population, integrating hydrophone passive monitoring as a non-invasive alternative to current data-tagging methodologies

Community Driven Monitoring

According to the United Nations Environmental Programme, approximately 55 cubic kilometers (km^3) of wastewater are dumped into the Indus every year.

As of 2023, the Indus River was recognized as the second most polluted river globally, in terms of plastic concentration. This project, however, diverges from traditional top-down approaches to address the mutilated infrastructural and political challenges of the contested Indus ecosystem, instead emphasizing monitoring and zoning strategies as means of fostering sustainable change.

Local boat makers are proposed to collaborate with an existing public university lab focused on pollution-detecting sensors, pH, and oxygen monitoring. By connecting them with fishers and existing research initiatives, a collective effort to fabricate environmental monitoring infrastructure begins to take shape.



Live Aquatic Pollution Monitoring and Zoning Infrastructure

PH sensors displaying pollution status for local fishers, helping to identify zones uninhabitable for endangered wildlife

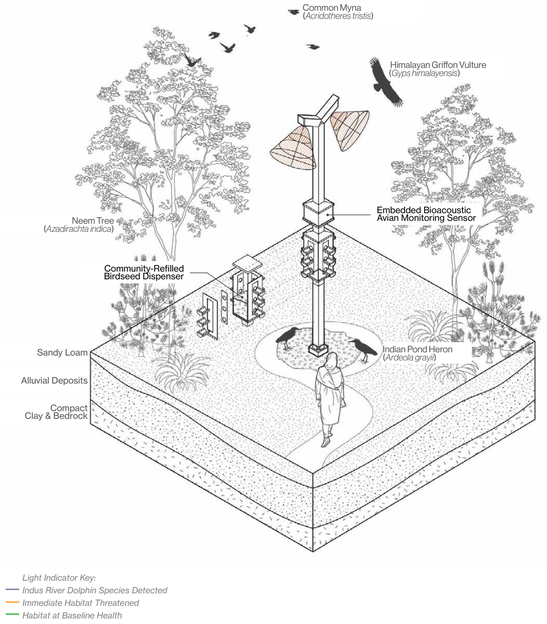
Submerged perspective, with pH sensors to monitor endangered Indus River Turtle habitat

Local boat-makers rigging-up boats with environmental monitoring sensors

Towards Collaborative Conservation

In a speculative future, the proposal envisions the expansion of the existing Wildlife Department in Sukkur. Currently underfunded, the proposal outlines steps for expansion, including collaboration with local fishers, community members, and international funding bodies.

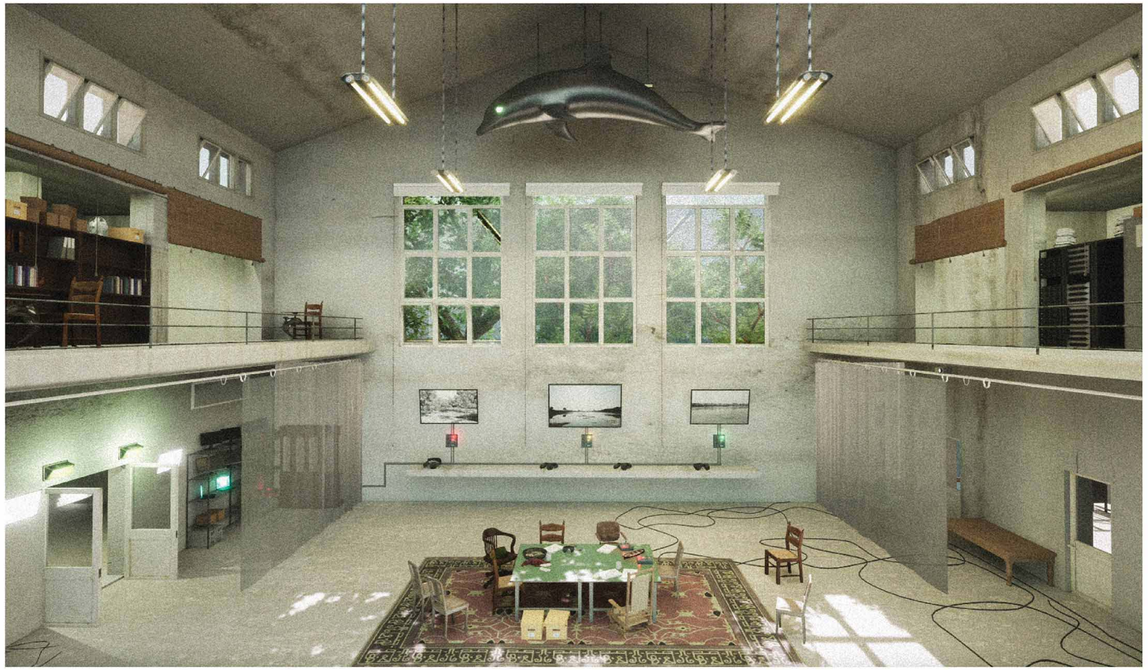
Illuminating the Indus positions the Indus River Dolphin as a catalyst – one that binds fishers, researchers, artists, and local communities in a shared act of stewardship. A decentralized infrastructure for habitat monitoring is created, growing alongside the endangered banks and its interconnected ecologies.



Avian Acoustic Monitor and Communal Bird Feeder

Acoustic eco-monitor and communal birdfeeder

Fishers, dolphin researchers, boat makers, and wildlife department collaboratively deliberating conservations strategies



The Indus River Dolphin as a tool for community mobilisation and the expansion of the Wildlife Department in Sukkur, Pakistan

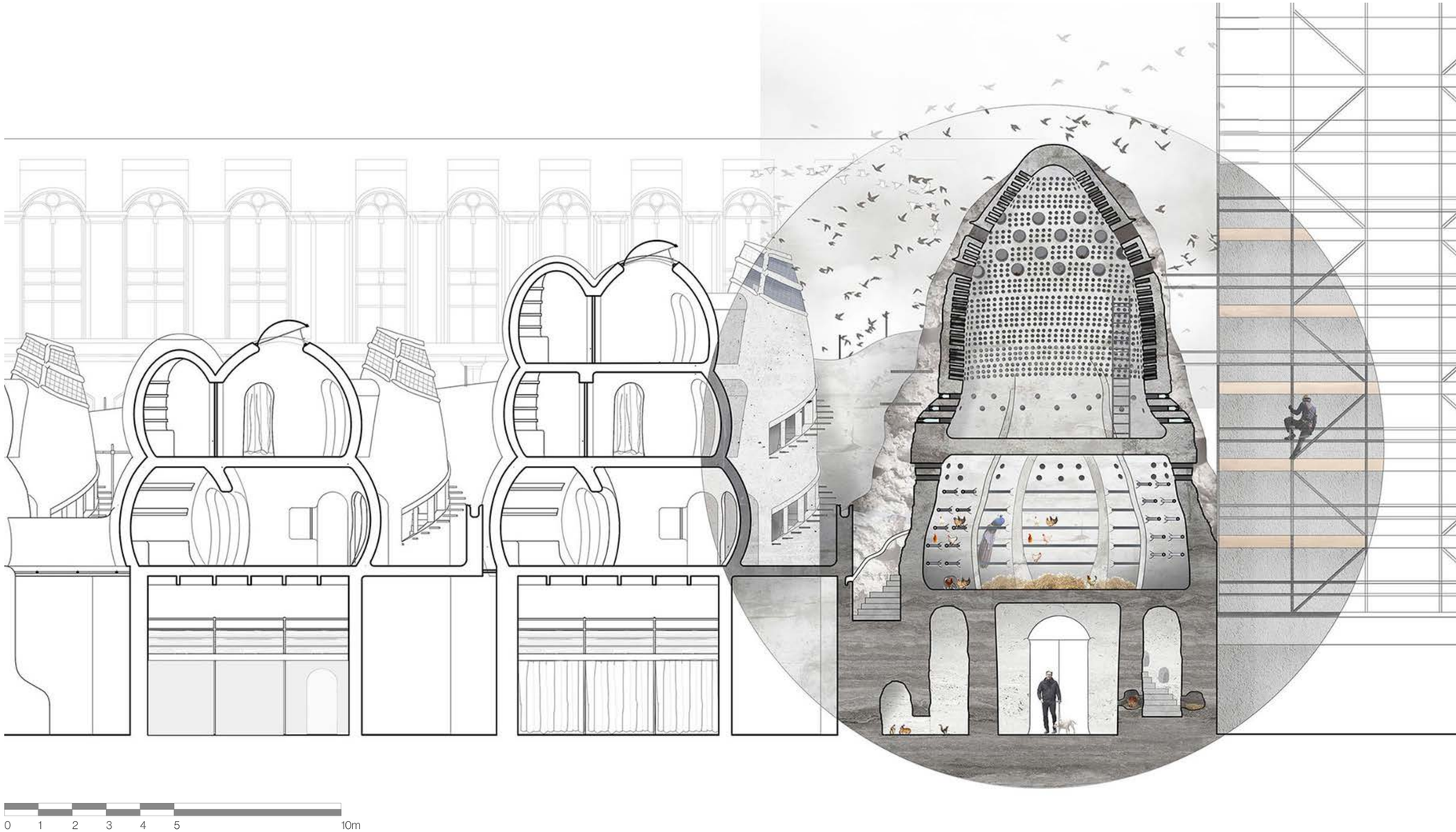
03 Living a *Wild*Life

Ecological Enclave in the City

PROJECT	Academic Project, Bachelors Thesis Project, University of Westminster, London, UK
YEAR	2020
TUTORS	Jane Tankard, Thomas Grove
GRADING	Honors Grading with **RIBA Bronze President's Medal Student Nomination**

Living a WildLife is a RIBA Student Award-nominated project that re-imagines urban living in Southwark, London, UK.

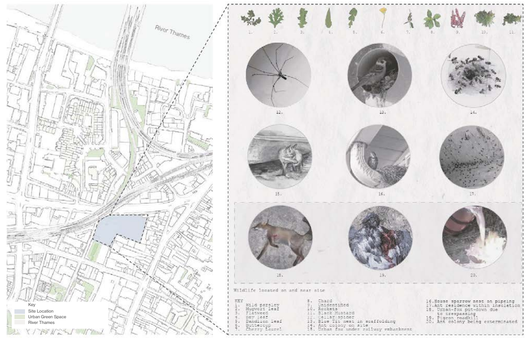
Designed for a post-COVID19 landscape, it caters to city dwellers who have become complacent in their antisocial dwellings, seeking to combat feelings of isolation by reconnecting humans with nature and our memories of the forest – creating a bio-diverse haven that exists to challenge sterile urban visions of the modern metropolis.



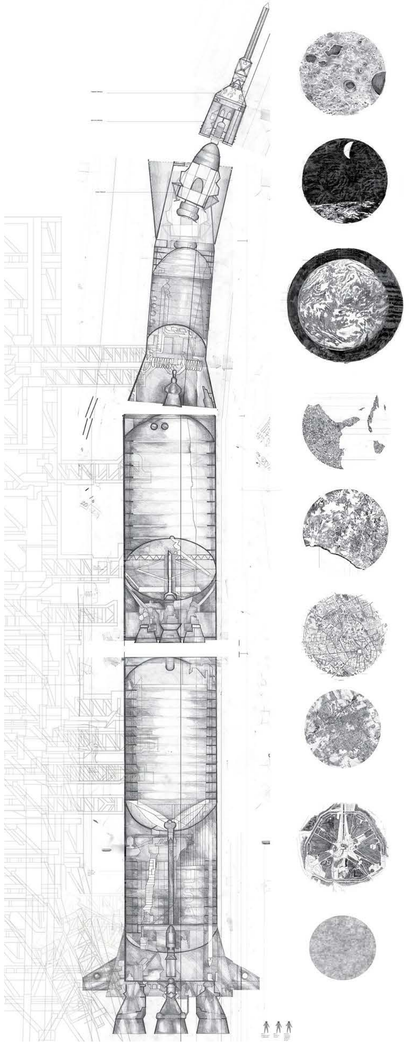
The Cognitive Shift Effect

In 1969, the Apollo 11 Moon mission refocused our gaze on Earth, revealing it as a jewel in the darkness, abundant with greenery, water, and life.

Living a WildLife learns from this perspective, shifting focus to the adaptive wildlife thriving in an underused car park in Southwark in central London. The design transforms the site into an off-grid living environment while observing and protecting urban wildlife.



Nonhuman inhabitants of an underused car park in Southwark, London, UK



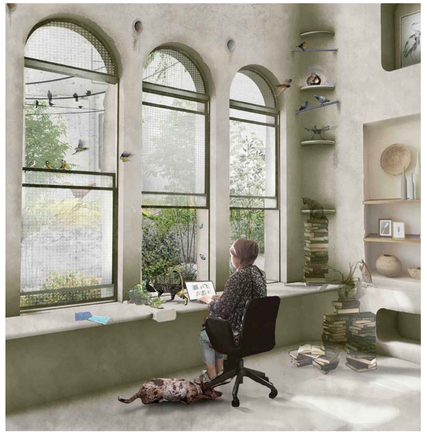
Sectional sketch of the Apollo 11 space module, used as a design development methodology, superimposed on-site

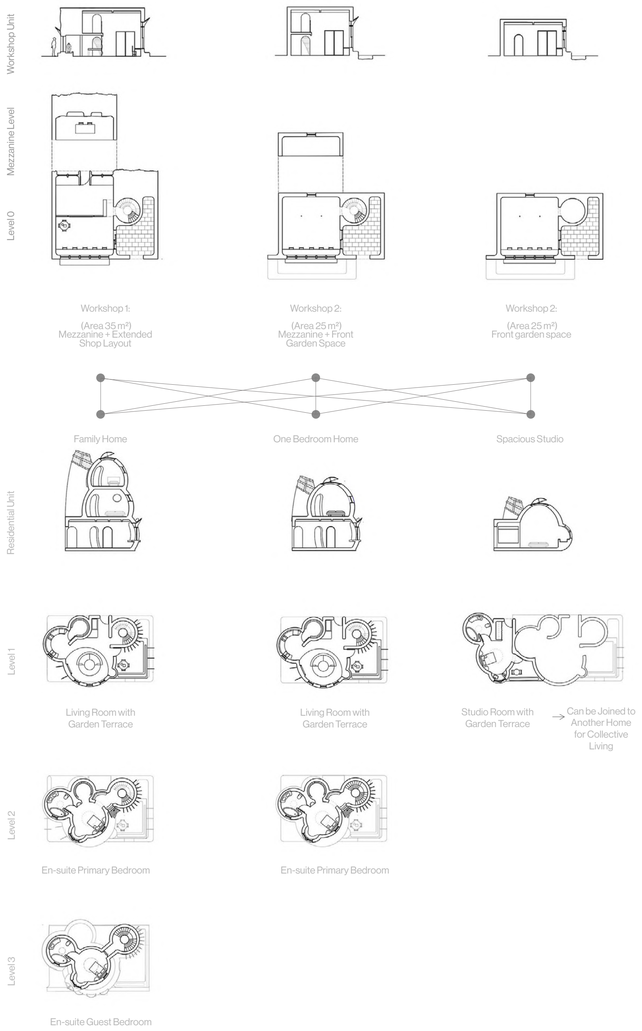
Settlement view and plan, with a dense perimeter to facilitate optimal micro-climate within the site, fostering urban biodiversity

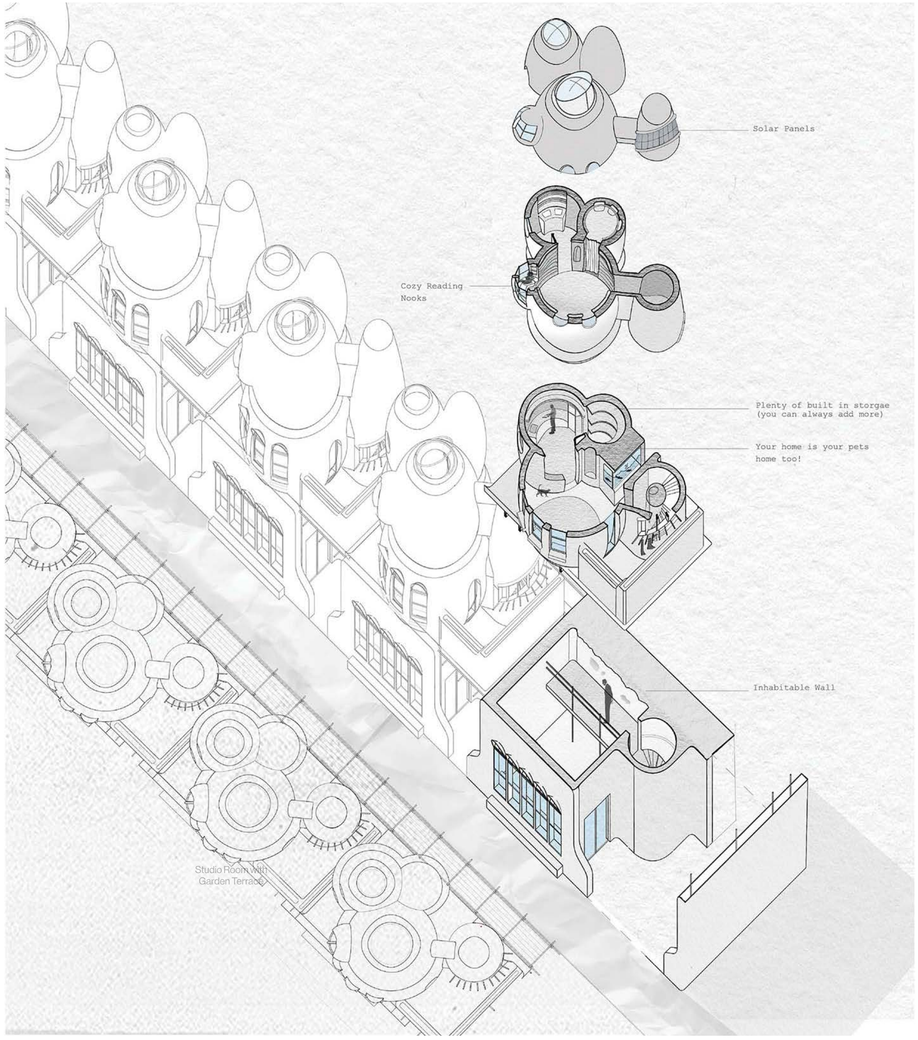
The Inhabitable Home

Living a WildLife provides residents with a variety workspaces and home typologies to choose from. The buildings become living micro landscapes – environments that can be burrowed into and added onto.

The scheme is massed to accommodate three distinct housing typologies alongside three adaptable workshop spaces.



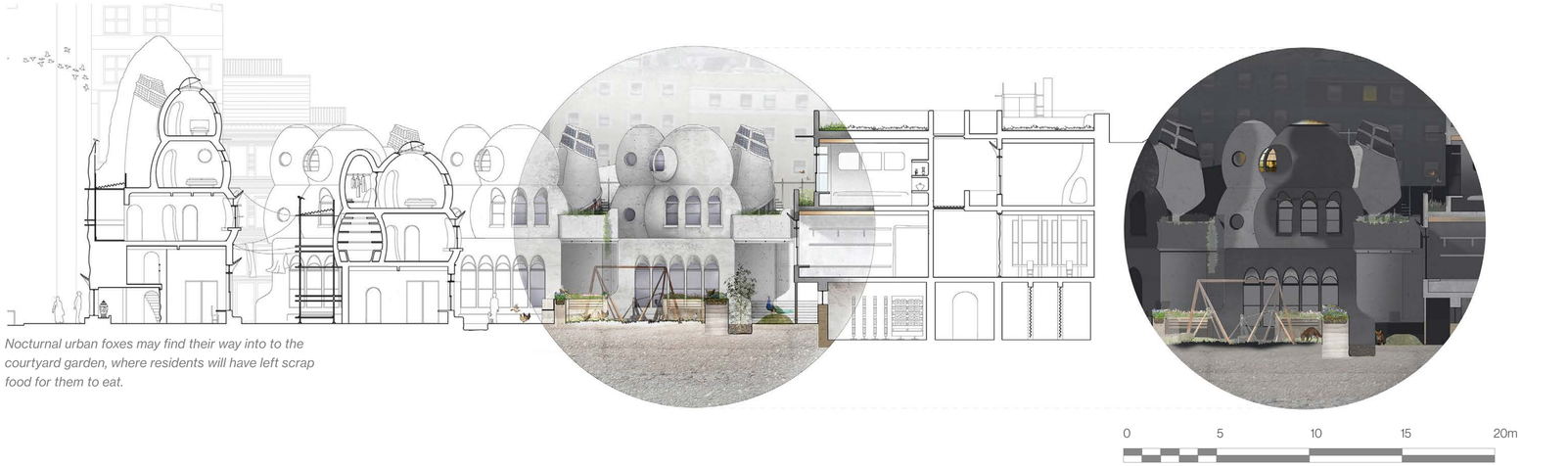




The Inhabitable home–office typology, with walls that can be borrowed into by residents

Re-imaging the ‘Woods’

The thesis understands the modern metropolis as a constructed landscape, blending the natural and man-made in architectural symbiosis. Inspired by the patterns of a temperate forest environment, the massing forms a dense perimeter with varying levels of permeability, creating a micro-climate within the site that allows specific urban species to thrive.



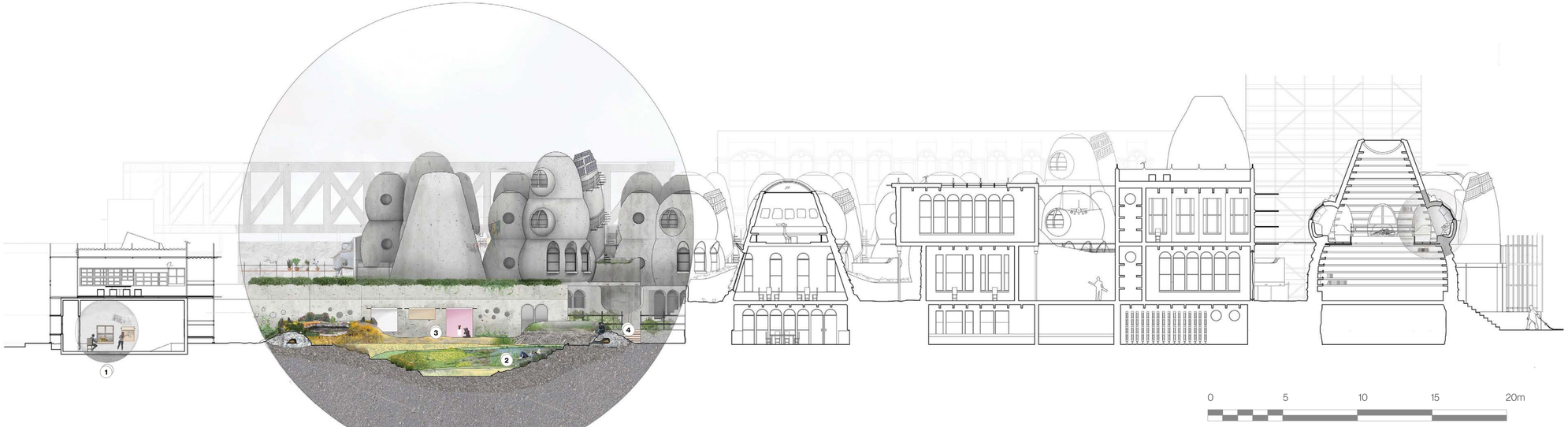
Nocturnal urban foxes may find their way into to the courtyard garden, where residents will have left scrap food for them to eat.

1 *Co-working space + Animal Activity Archival*

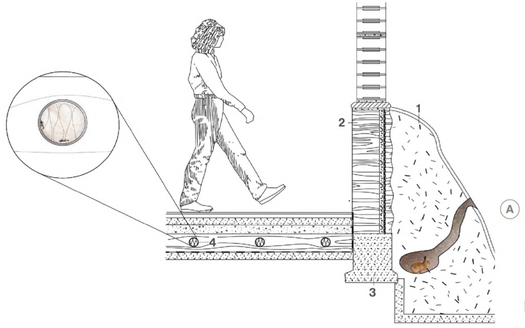
2 *Wildflower Meadow*

3 *Photography Garden*

4 *Multi-species Cohabitation*



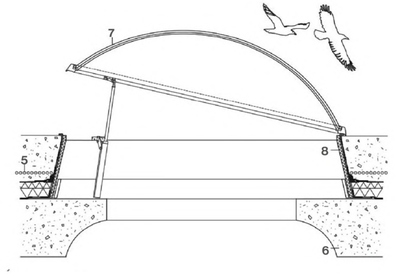
On January 2018, China banned the import of most plastic and paper waste, disrupting global recycling patterns. As a result, 2,500 metric tonnes of unrecyclable refuse were redirected, much of which is now buried in UK landfills, camouflaged under landscaped mountains for urban leisure. This speculative proposal of re-purposing waste material at an architectural scale served as a speculative starting point for my current interests – exploring circular construction methods by integrating vernacular techniques with sustainable material technologies.



(A) Rammed Earth Tower – Foundation Detail

1. Timber-cob external massing and wall render
2. Rammed earth load bearing wall
3. Concrete foundation
4. Metal scaffolding filled with old insulation for ant inhabitation

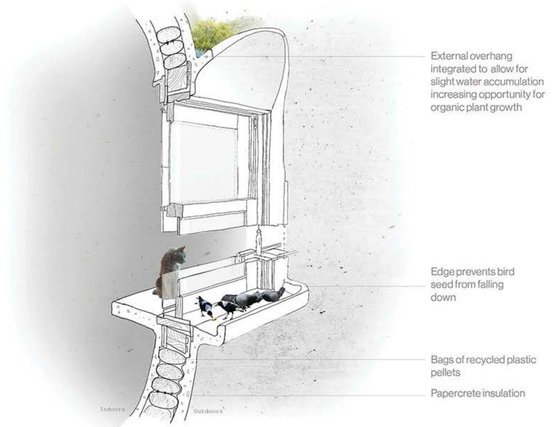
0 0.2 0.4 0.6 0.8 1 2m



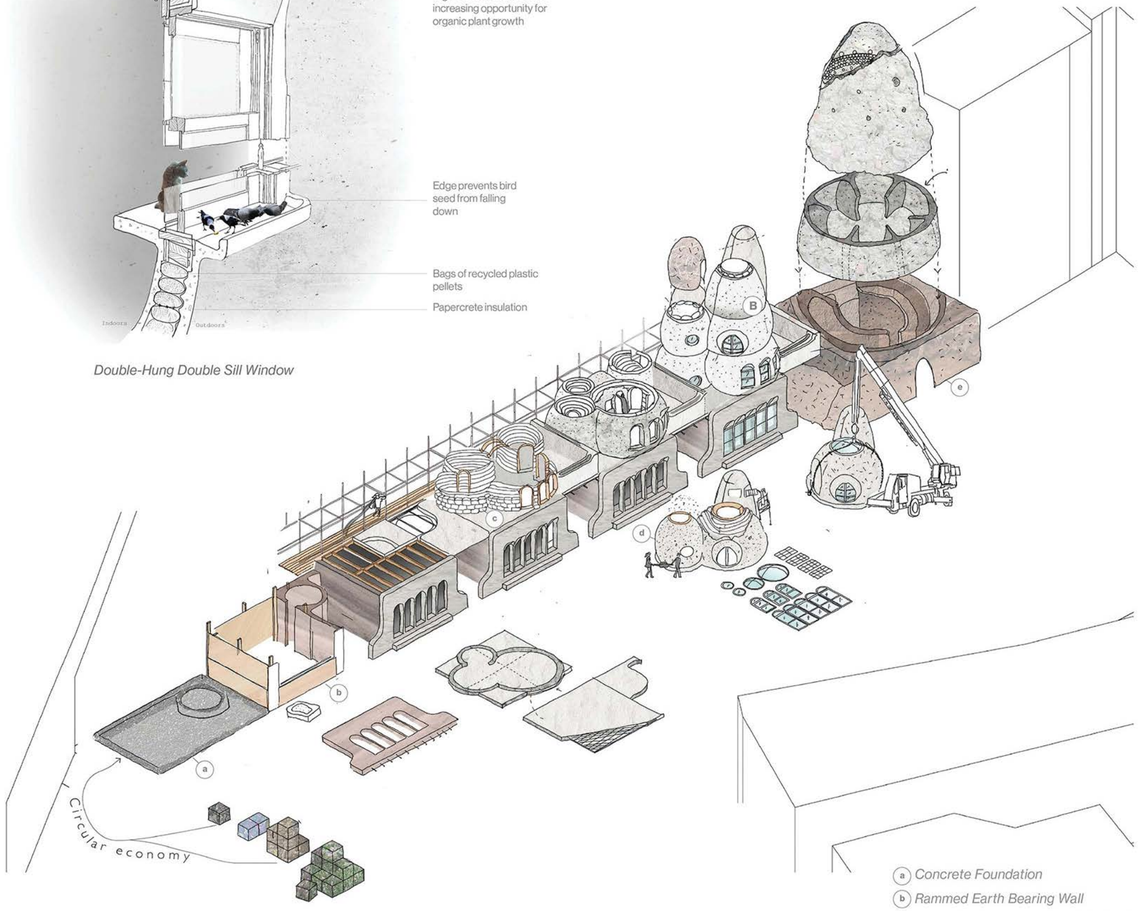
(B) Residential Unit – Dome Skylight Detail

5. 500mm gravel with plastic sealing layer
6. Papercrete
7. Triple-glazed dome roof-light
8. Double-walled GRP insulated curb with papercrete/cellulose insulation

0 0.2 0.4 0.6 0.8 1 2m



Double-Hung Double Sill Window



(a) Concrete Foundation
(b) Rammed Earth Bearing Wall
(c) 'Earth-Bag' Construction with Plastic Pellet Infill
(d) Papercrete External and Internal Render
(e) Timber-Cob External Massing Layer

04 Texan Typologies

Houston, Texas, USA

OFFICE	Brett Zamore Design, Houston, Texas, USA
YEAR/STATUS	2022/Built
OFFICE	Architectural Assistant (RIBA Part 1)

Texan Typologies details my work at Brett Zamore Design, an AIA-licensed, LEED-accredited architecture firm based in Houston, Texas, specializing in sustainable residential design with a focus on prefabrication and adaptive reuse.

Using BIM modeling, I refined my expertise in design detailing, emphasizing high-performance building envelopes, material efficiency, and energy optimization strategies.

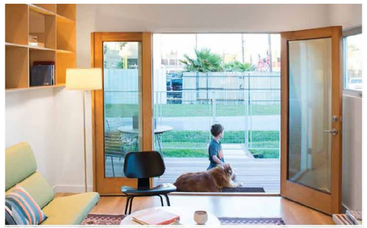
Image of the built zFAB, a typology for which I produced the drawing set during my work experience, under the supervision of the managing architectural designer. Image is property of Brett Zamore Design.

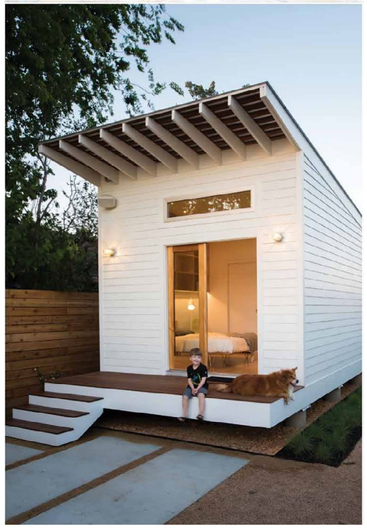
zFAB Butterfly

The *zFAB Butterfly* is a prefabricated, butterfly-roof home designed to offer an affordable living solution. Factory-built and delivered for on-site installation, it minimizes cost, waste, and construction time, making it a sustainable housing alternative.

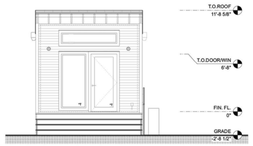
Role & Responsibilities:

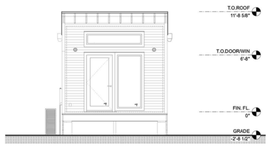
- Developed full site-adapted BIM-modeled drawing set including architectural, structural, and MEP components
- Observed construction administration under lead architect

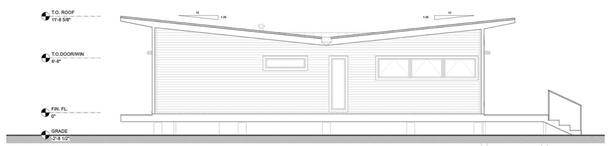


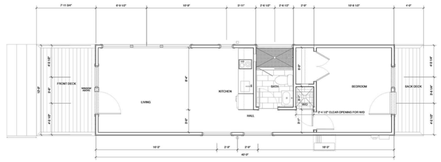


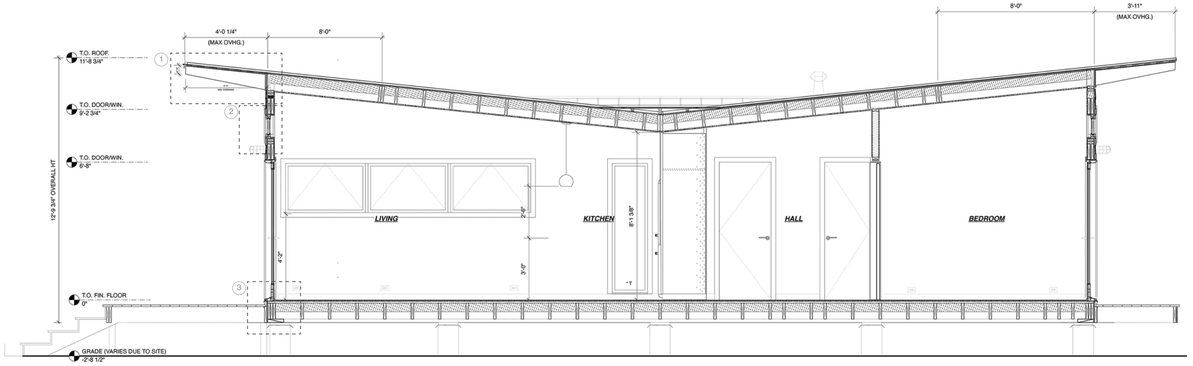
Completed and built images of the zFAB Butterfly, property of Brett Zamore Design.

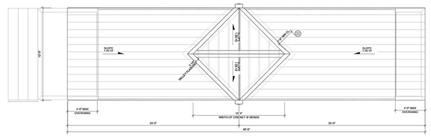


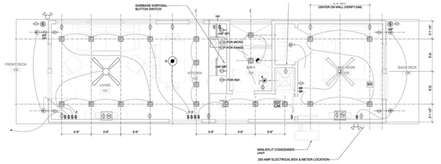


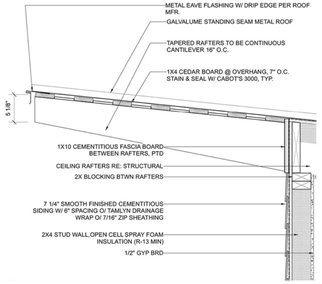




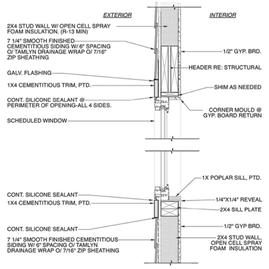




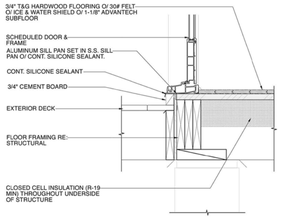




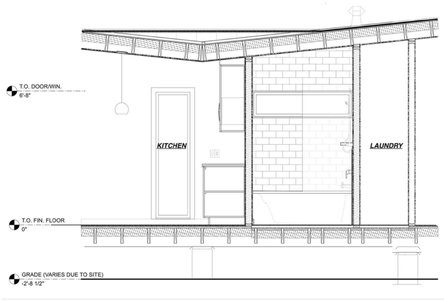
1 *Roof Rafter Connection Detail*



2 *Window Head and Sill Detail*



3 *Exterior Door Sill to Deck Transition Detail*



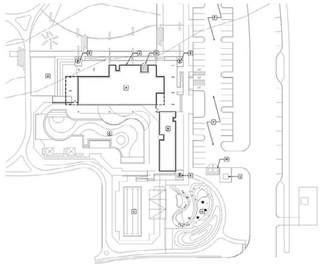
Bridgeland Creekland Activity Centre

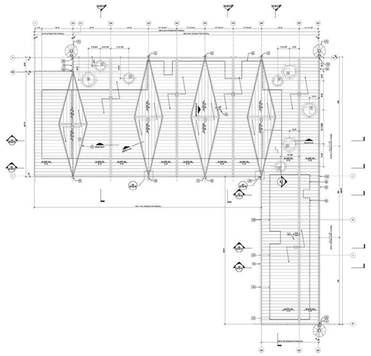
As part of the design team at Brett Zamore Design, I contributed to the development of the Bridgeland Creekland Activity Centre, a mixed-use project in Cypress Northwest Houston, aimed at enhancing the visitor experience while preserving the natural environment.

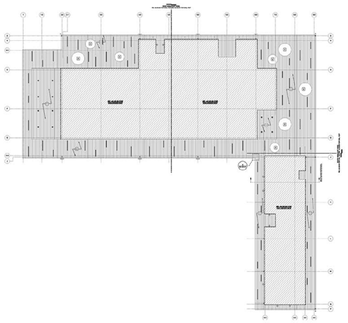
Role & Responsibilities:

- Coordinated material orders
- Prepared visuals for client meetings
- Drafted and detailed across DD, BP and CD phases within design team

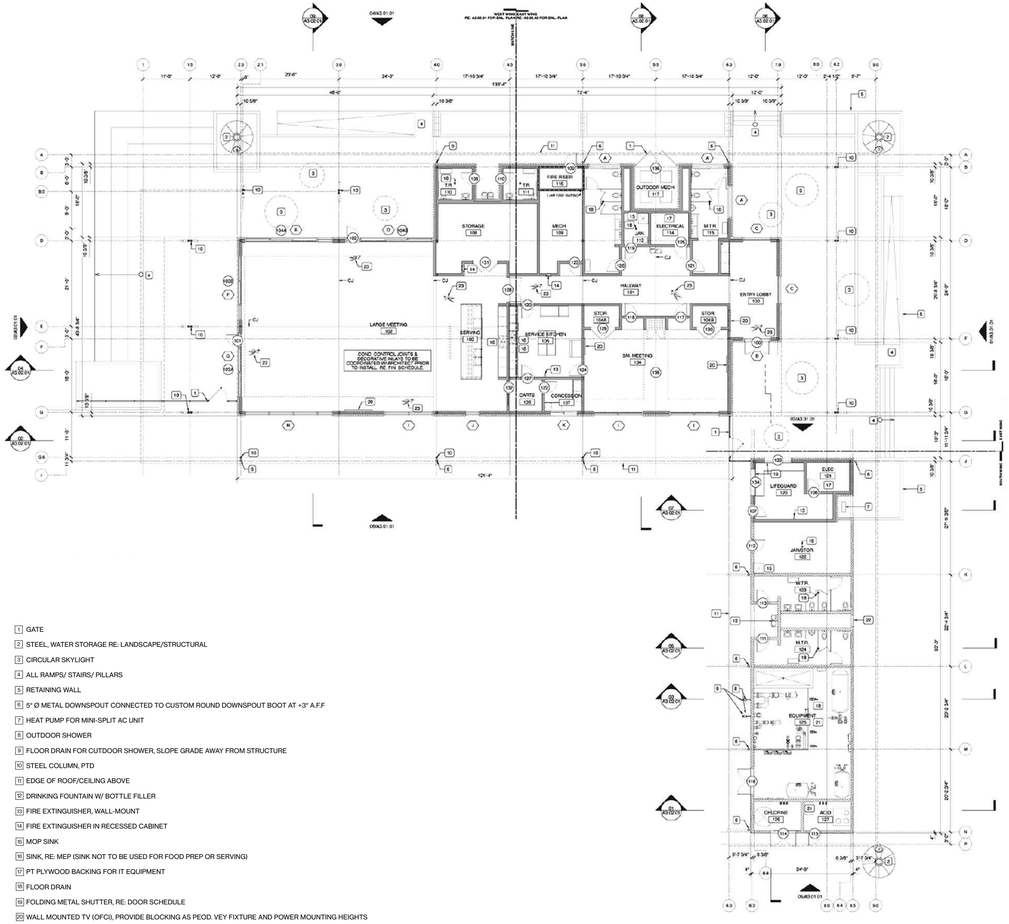
Rendered visuals for Bridgeland Creekland, produced in collaboration with the Brett Zamore design team







Drafting work including Site Plan Floor, Roof Plan and Roof RCP Plan



1 GATE
2 STEEL, WATER STORAGE RE: LANDSCAPE/STRUCTURAL
3 CIRCULAR SKYLIGHT
4 ALL RAMPS/ STAIRS/ PILLARS
5 RETAINING WALL
6 5" Ø METAL DOWNSPOUT CONNECTED TO CUSTOM ROUND DOWNSPOUT BOOT AT +3" A.F.F
7 HEAT PUMP FOR MINI-SPLIT AC UNIT
8 OUTDOOR SHOWER
9 FLOOR DRAIN FOR CUTDOOR SHOWER, SLOPE GRADE AWAY FROM STRUCTURE
10 STEEL COLUMN, PTD
11 EDGE OF ROOF/CEILING ABOVE
12 DRINKING FOUNTAIN W/ BOTTLE FILLER
13 FIRE EXTINGUISHER, WALL-MOUNT
14 FIRE EXTINGUISHER IN RECESSED CABINET
15 MOP SINK
16 SINK, RE: MEP (SINK NOT TO BE USED FOR FOOD PREP OR SERVING)
17 PT PLYWOOD BACKING FOR IT EQUIPMENT
18 FLOOR DRAIN
19 FOLDING METAL SHUTTER, RE: DOOR SCHEDULE
20 WALL MOUNTED TV (OFCI), PROVIDE BLOCKING AS PEOD. VEY FIXTURE AND POWER MOUNTING HEIGHTS
21 EYE WASH BASIN
22 32"X32" METAL ACCESS PANEL PTO COLOR TO MATCH ADJACENT CMU
23 BRONZE TURTLE INLAY

Floor Plan – Overall

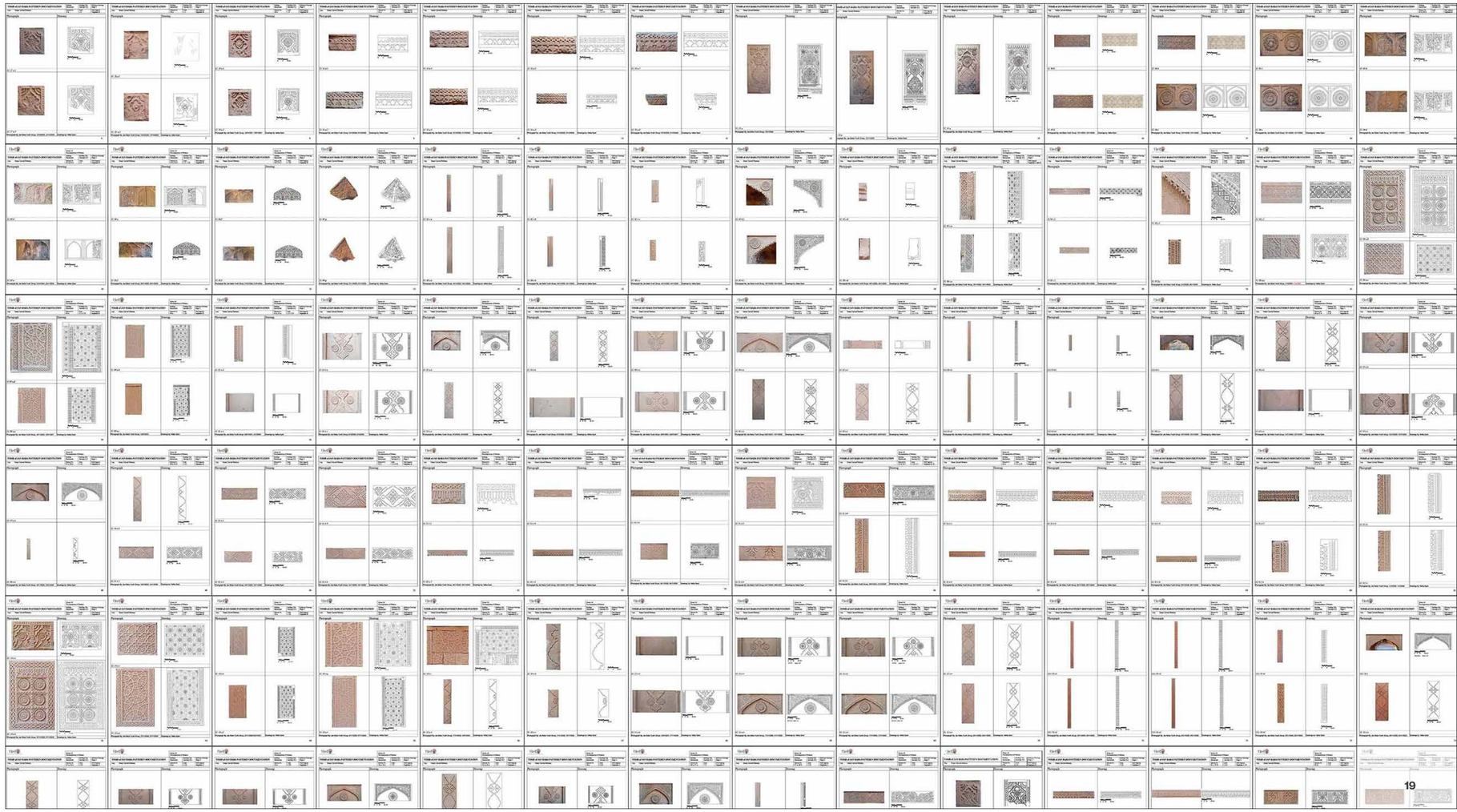
05 UNESCO, Youth, Heritage

Makli, Sindh, Pakistan

TEAM	Ar. Yasmeen Lari – Heritage Foundation of Pakistan, Makli, Pakistan
YEAR/STATUS	2021
ROLE	Architectural Assistant (RIBA Part 1)

UNESCO, Youth, Heritage is an archival initiative that I managed and led during my time with Architect Yasmeen Lari at the Heritage Foundation of Pakistan.

The project focused on archiving the historic craftsmanship of the Tomb of Mirza Jan Baba, a 1608 monument within Makli Necropolis, a UNESCO World Heritage site in Sindh, Pakistan.



Overview of selected archival files produced for documenting the craftsmanship of the Tomb of Mirza Jan Baba

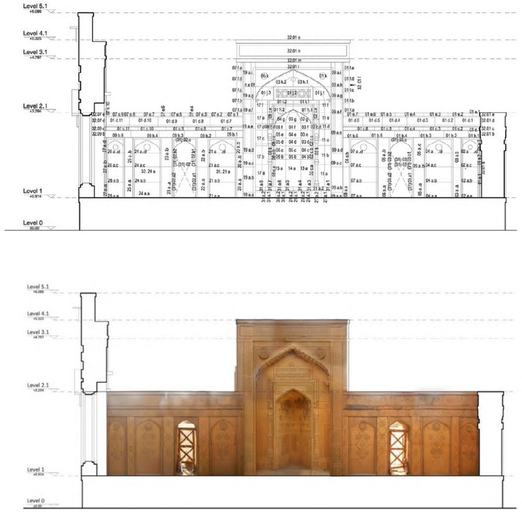
This archival initiative aimed to preserve the tomb's artistic details through documentation while also engaging local youth in their heritage and conservation efforts.

As the project leader, I led workshops, created CAD drawings, and contributed to the Heritage Foundation's archive.

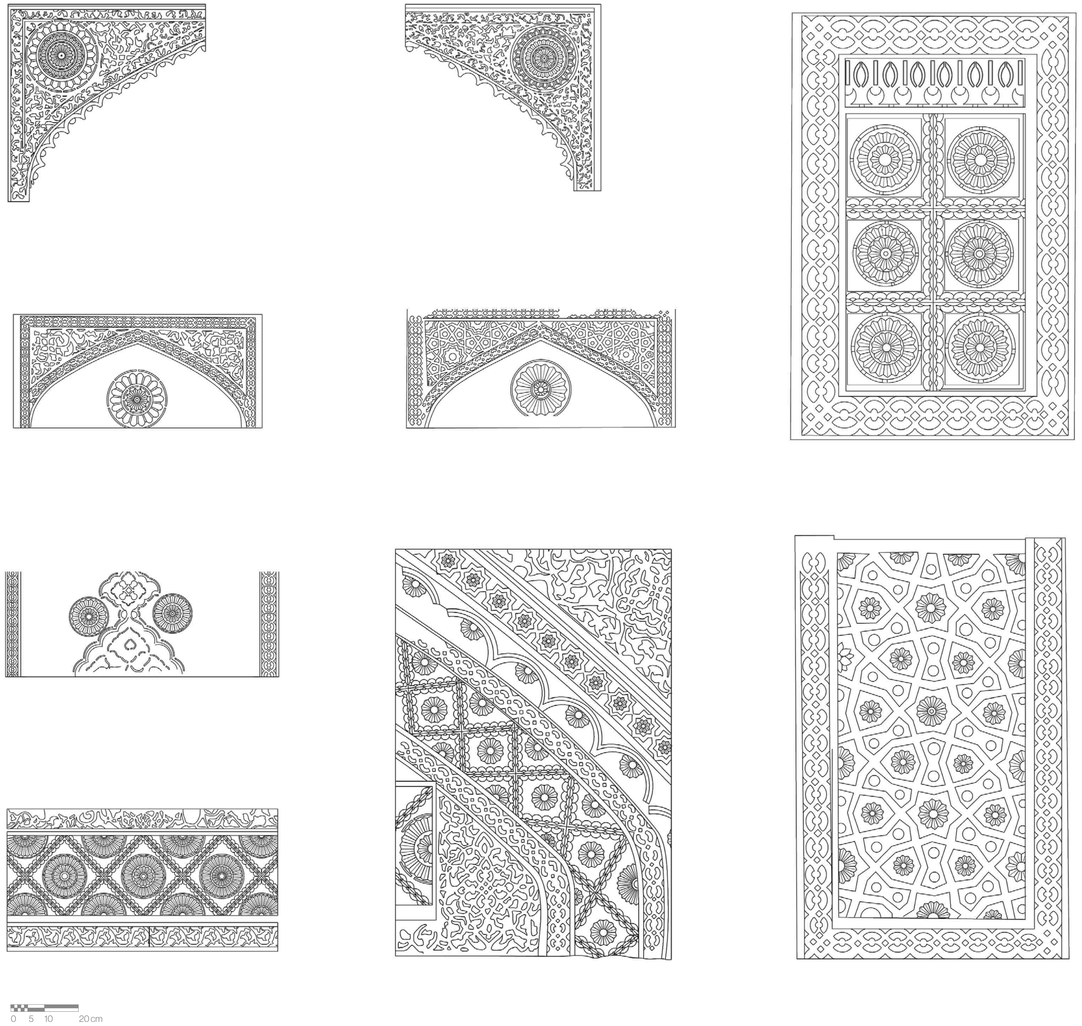
Project Role and Responsibilities:

- Led project organization and delegation.
- Hosted workshops to educate youth on the site's history and the documentation process.
- Produced over 260 CAD drawings of custom carved motif panels.
- Compiled bi-monthly illustrated reports for The British Council, project collaborators

On Site and Online workshops teaching local youth in Makli about history and archival



Elevation diagram of the Tomb of Mirza Jan Baba, Makli Necropolis, Sindh, Pakistan



260 distinct drawings created for carved motif panels, with documented dimensions and erosion levels

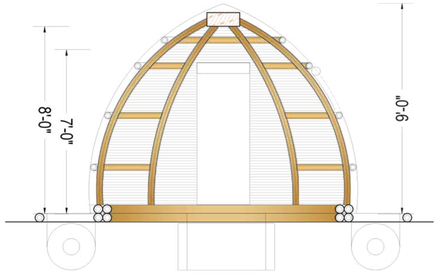
06 Floating *L.O.G*

Makli, Sindh, Pakistan

OFFICE	Ar. Yasmeen Lari – Heritage Foundation of Pakistan, Makli, Pakistan
YEAR/STATUS	2021/Built
ROLE	Architectural Assistant (RIBA Part 1)

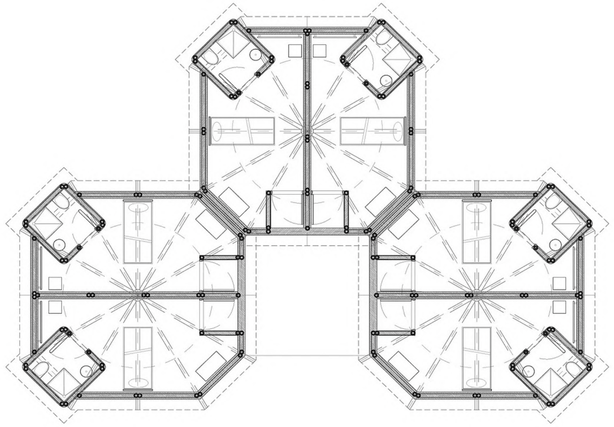
Floating L.O.G (Lari-Octa Green) is a mobile bamboo system designed by architect Yasmeen Lari to adapt to the region's flood conditions in Makli, Sindh, Pakistan.

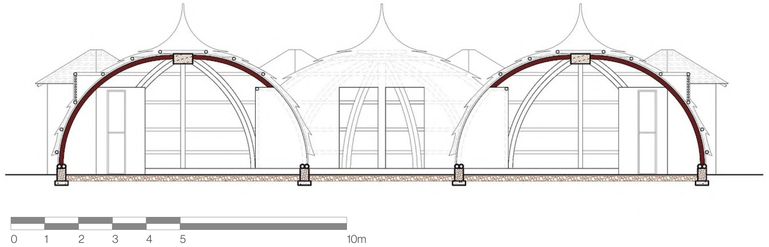
It functioned as a floating quarantine shelter during the COVID-19 emergency, and was then adapted as residential clusters for post-crisis use. Constructed in 1–2 days, the design was developed and refined to enable efficient and quick on-site fabrication.



Role and Responsibilities:

- Designed and drafted technical drawings with design team.
- Co-managed and assisted on-site construction.
- Engaged with local communities to gather feedback on the design's functionality, impact and requested adaptions.





Floating Pod designed as an adaptable typology to create settlements post its initial usage (drawing produced in collaboration with 3 person design team)

Bamboo pod typology constructed at Yasmeen Lari's 'Zero Carbon Centre Design Lab in Makli, Pakistan

Bamboo pod covered with thatch roof to test lightweight roofing system before testing structural buoyancy

Bamboo pod clad with a thin layer of earth-lime plaster to provide shelter

07

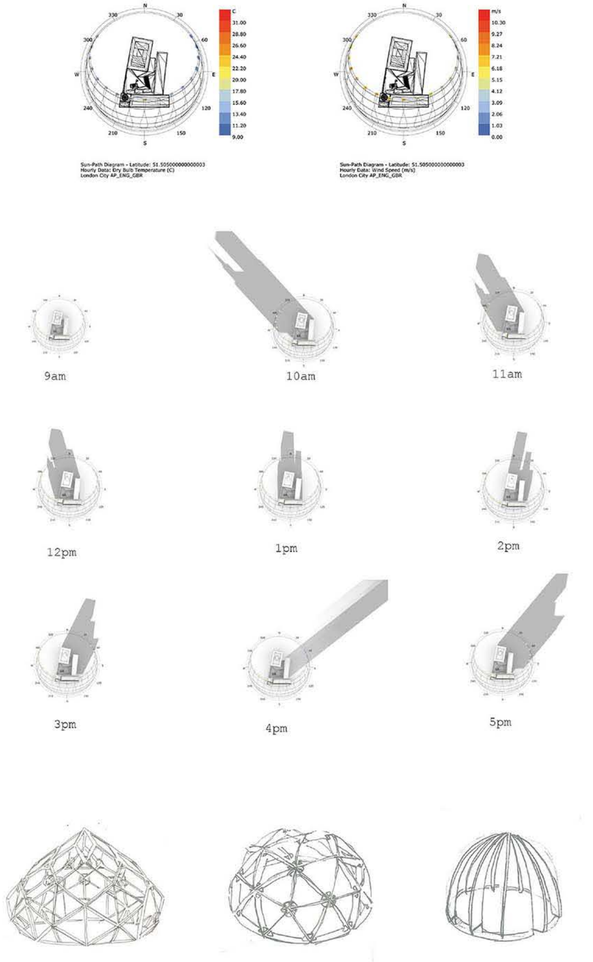
Ramadan Pavillion

Victoria and Albert Museum, London, UK

TEAM	University of Westminster in collaboration with MakeSpace Architects, AKII
YEAR/STATUS	2023/Built
ROLE	Technical Research Assistant

The *Ramadan Pavilion* is a timber temporary structure that was showcased at the Victoria and Albert Museum's Courtyard in 2023 as part of The Evolution of the British Mosque exhibit. I was part of a 10-person student team selected as technical research assistants. My co-designer and I developed and detailed the pavilion's dome structure alongside technical analysis for the project.

Role & Responsibilities:
• Produced technical reports detailing the construction and assembly of the dome structure.
• Used Grasshopper for site analysis and design refinement.



Selected diagrams from the technical studies report, including grasshopper sun and wind analysis, and design development work of the timber dome structure.

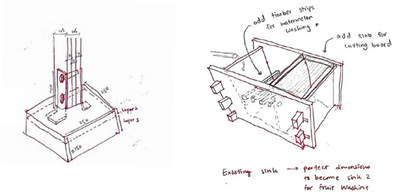
08 Watermelon Place

Koshirakura, Niigata, Japan

PROJECT	Shin Egashira's Architectural Association Visiting School in Koshirakura, Niigata, Japan
YEAR/STATUS	2023/Built
ROLE	Group Workshop, Design and Build

Watermelon Place is a design-build project in Koshirakura, Niigata, Japan, created as part of the Architectural Association workshop in the region, established in 1996. The annual initiative collaborates with the village's elderly population, using vernacular materials and techniques to respond to evolving needs of the agriculture community.

Constructed from locally sourced, reclaimed timber, a canopy structure revitalizes a natural spring once used for washing locally grown watermelons. A reclaimed timber basin, set on an in-situ cast concrete pedestal, provides an accessible washing and drinking station, while the canopy offers shade in summer and shelter from heavy winter snowfall. My design role spanned the concrete foundation, the structure footings, and timber sink detailing.

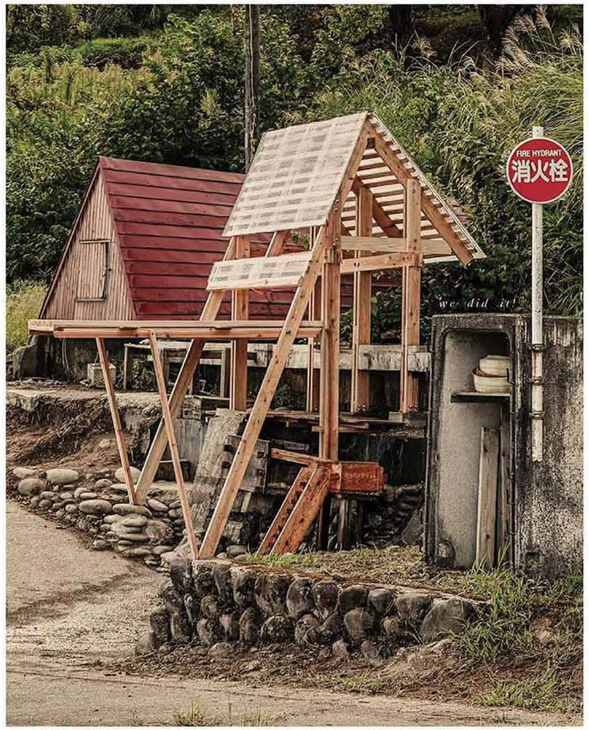


In-process sketches during the design and build of Watermelon Place

Exposed timber truss roof with a polycarbonate covering for diffused light filtration

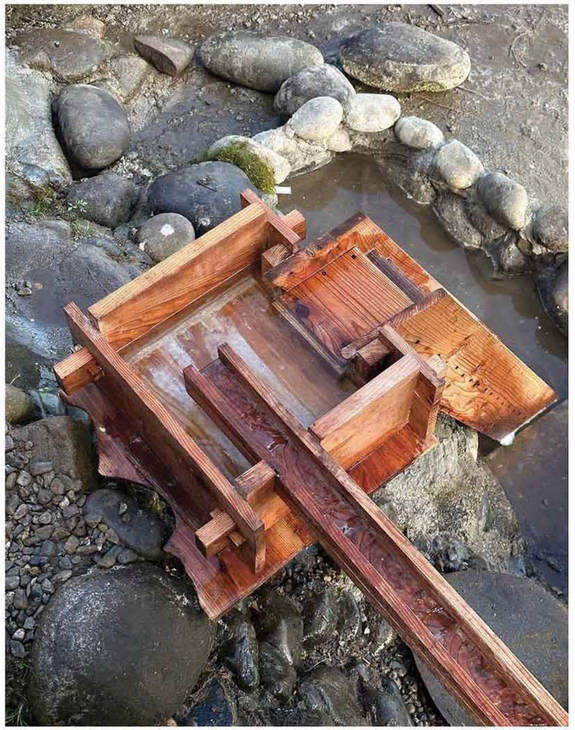
Dry-stacked stone and concrete-stabalised base, supporting timber post

Wood and metal water spout system, to provide adjustable pressure of fresh water stream



Completion of Watermelon Place project, using locally sourced lumber

A local villager and friend named Hirosun, enjoying the fresh spring water after repair of water channel upon project completion



Water channel directing fresh water from stream into designed concrete-cast pebble basin