



Winners Announced for “Tiny Library 2023 Architecture Competition”

Archetype team - 21/09/2023

International design competition

With the world constantly evolving, there is a ton of information being formulated out there. Human intellect today is expected to evolve at the same rate for our world to continue our journey into the future. Despite all the information, reading and self-learning remain the most powerful tools available to mankind to consume knowledge. Learning increases awareness, exposure, and productivity, which leads to development. Despite its importance, education is still inaccessible to many communities in remote locations around the world. Self-learning, especially through reading, is crucial for the society's development. It is important to power the growth of like-minded networks. It is necessary to have places promoting education and self-learning to educate the local population within the closest proximity. It will make them accessible to gainful employment opportunities in their home towns and will thereby avoid the need for migration elsewhere.

The competition challenged its participants to rethink and re-imagine the idea of the Library as a 21st-century self-learning and educational incubation space that not only sheds light on conventional means of knowledge

but also encourages its users to interact, share ideas, and grow together. Participants were required to design a Tiny Library optimized for 75 users with engaging multifunctional spaces for all ages and spatial experiences where they were required to choose a site in a rural or remote context for the proposal and the structure should not exceed 300 sq.mt of built-up area.

Volume Zero Competition thanks all the competitors for participating in this competition and for contributing to this competition's research. Participants from more than 50 countries contributed valuable concept ideas to the contest, which was evaluated by a panel of international experts. The winning projects have been awarded a total cash prize of \$4,000 distributed to the first 3 team winners.

The esteemed jury for judging this competition consisted of **Puran Kumar** (Studio PKA), **Peter W. Ferretto** (Condition Lab), **Lui Hanxio** (LLLab), **Ahmad Thaneem** (3dor concepts), **Antonio Garza Ferrigno** (Proyecto Reacciona), **Catherine Ranger** (MGS Architects), **Luis Ricardo** (LLLab), **Sebastian Irrarrazaval** (Architect).

The top three winners were awarded total prize money of \$4,000 while ten entries received Honorable Mentions. Here are the winning entries. The full result for the competition **Tiny Library 2023 Architecture Competition** can be found at volumezerocompetitions.com.

FIRST PLACE

The Ship of Knowledge
BOURGEOIS LECHASSEUR ARCHITECTES | Canada



SECOND PLACE

The Seventh Generation Library

This library has been designed to be part of its natural setting. Not simply to be located within a Banyan Tree Forest, but to be enveloped by the roots of this unique tree.

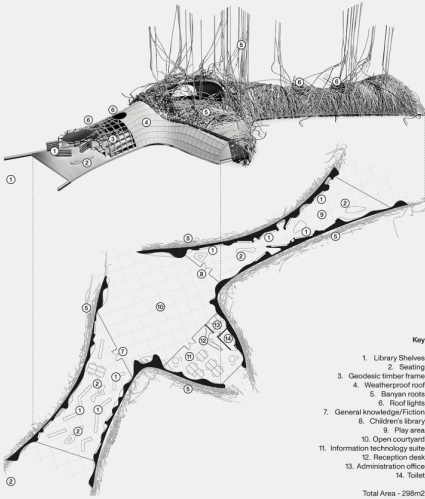
The Banyan Tree holds a special place in Indian culture. It is the country's national tree and its aerial root system, climbing downwards from the canopy, offers a means to integrate the library in the local ecosystem.

Building on the indigenous theory of the seventh generation, the library would be constructed predominantly in timber and, over the generations would become enmeshed in the roots of the trees above, until it becomes a living part of the forest.

This metaphor carries into the use of the building. As a library located adjacent to the Living Roots Bridge, on the edge of Riwal, in the Meghalaya region of India, its purpose is to establish, enhance and embed knowledge in the community. This knowledge will grow over generations, as the roots cloak the structure, rooting the library into the community and nature.

The building is divided into three primary elements: General knowledge and fiction, a children's section, and an information technology suite. Each element is accessed off a central courtyard which can be used for community events, art and sculpture exhibitions and lectures.

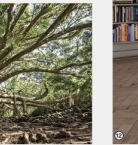
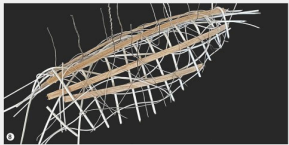
At the end of its useful life, any materials that cannot decompose will be removed and the structure will become fully integrated with the ecosystem as it collapses into ruin and becomes home for plants, bugs and other wildlife.



- Key
- 1. Library Shelves
 - 2. Seating
 - 3. Geodesic timber frame
 - 4. Weatherproof roof
 - 5. Banyan roots
 - 6. Roof lights
 - 7. General knowledge/fiction
 - 8. Children's library
 - 9. Play area
 - 10. Open courtyard
 - 11. Information technology suite
 - 12. Reception desk
 - 13. Administration office
 - 14. Toilet
- Total Area - 298m²



- Figure references
- 1. Exploded perspective
 - 2. Plan
 - 3. Location map
 - 4. Site map
 - 5. Section
 - 6. Exterior CGI
 - 7. Elevation
 - 8. Concept model
 - 9. The living roots bridge
 - 10. Banyan roots enveloping building
 - 11. Banyan tree
 - 12. Interior CGI



Honourable Mentions:

TRAVELING STORIES

Hidalgo is one of the states with the lowest educational level in Mexico, is neither inclusive nor equitable. There are a lot of communities without electricity and essential needs, let alone access to books and a safe space for learning.

This tiny library consisting of a series of modular units made from durable materials, emerges as a ephemeral and romantic set that is flexible, easy to assemble and able to be reconfigured in different ways in order to adapt both to its context and to each community's specific needs. The idea is for the library to tour to the most underserved and underrepresented communities in Hidalgo and for it to operate as a learning platform that, rather than being set up on a permanent location, can move to different localities.

This project was originally conceived when thinking of community storytelling, and its transformative power, as a central idea. Hence, the inclusion of a recording module as one of the key components of this project.

Looking to inspire meaningful dialogue and action, this mobile library allows for stories and ideas from individuals to be recorded, documented and spread between otherwise disconnected communities, acting as both a connection and a catalyst that can shed light on the challenges that rural communities face when accessing education.

Stories nurture connection and empower people to become more engaged with their own communities. And just as books are capable of creating moments of reflection and introspection, so too can spoken word, music, film, dance and learning. With this in mind, the Traveling Stories Library aims to create a safe space where all of these activities can take place, almost as a village for information, literacy, entertainment and language skills.

The library truck itself also acts as a fundraising campaign for education in Hidalgo. Because of the experiential nature of the project, the library can help communities and state organizations to better understand the systemic barriers to access education and the real impacts it has on individuals. Hoping this can lead communities in Hidalgo to seek ways to improve the state's learning spaces.

In order to meet the project's basic functionality needs, the modular design allows for a classic library space configuration: with bookshelves, tables and chairs. However this same modular design can help rethink the library itself as an open reading space that fosters community encounters and blurs the line between indoors and outdoors.

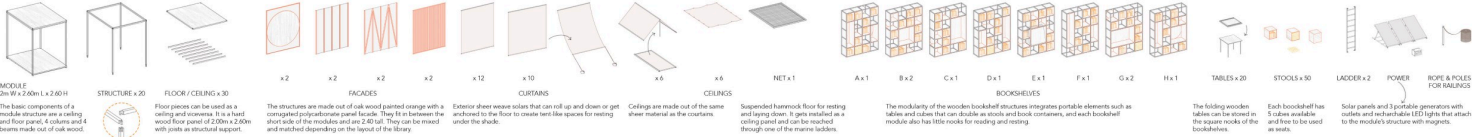
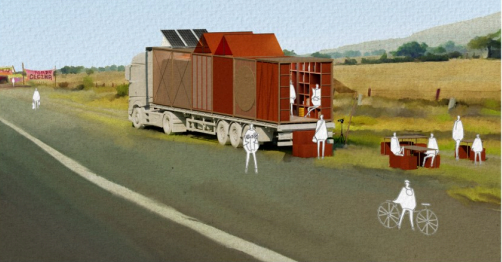
With flexibility at the core of the project's design philosophy, the modular nature paired with the library's easy-to-build structure allows for each pavilion to be completely different. Using a simple build system, the facade panels and ceilings can be placed in many ways and matched to different modules, and the bookshelves and tables can be mixed and matched to create multipurpose layouts that can be freely modified in a way that opens up a world of possibilities for the configuration of the space.

The library can either be set up as an enclosed space (Layout B) or set up so that it is accessible from all sides (Layout C). It can be divided into different rooms and platforms (Layout A) or set up as a single building. It can contain a single function or multiple ones; it can be set up for creative workshop spaces, reading & writing spaces, performance platforms, screening spaces or into a public space for gathering, socializing and connecting. It essentially reimagines itself to better fit the desired learning experience.



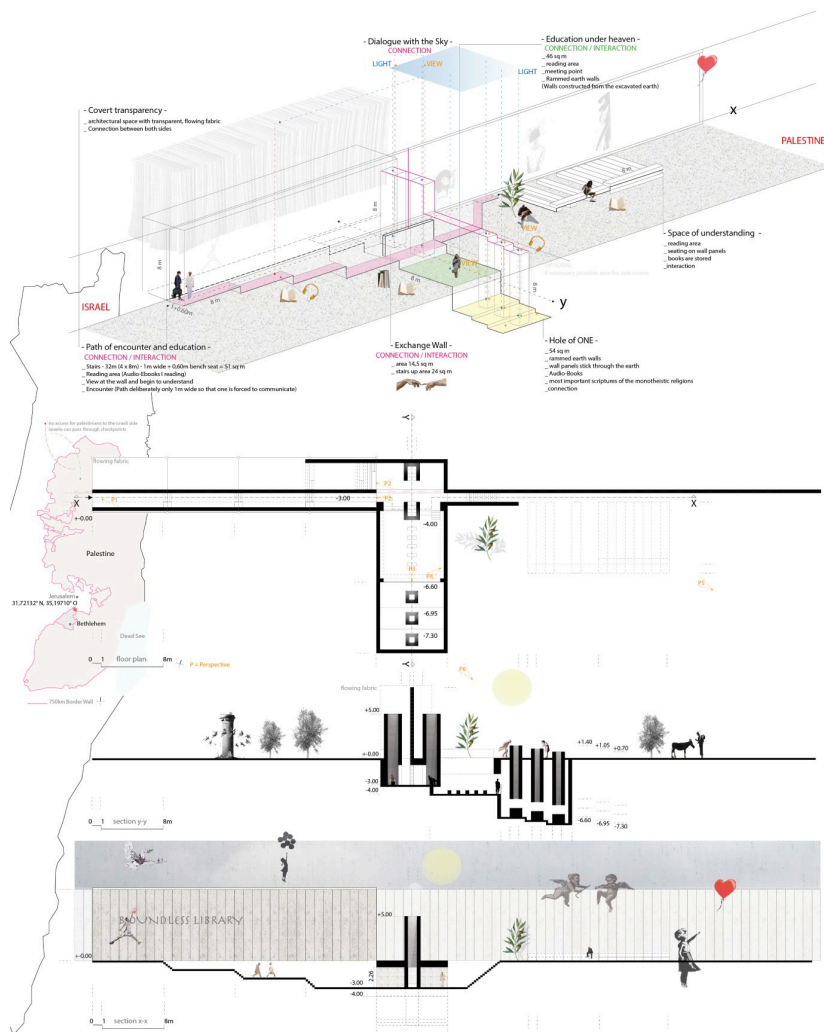
Depending on the setting, the truck can work as an even trrier library for more "on-the-road" situations. The rest of the pieces are stored in the two back modules on the front of the truck, leaving 4 modules available for use even if its current location doesn't allow for a temporary deployment, or if the conditions of the specific community being visited are particularly precarious. For example, modular communities in Hidalgo.

The library modules were designed based on the maximum size allowed for a semi-trailer in the Official Mexican Standard, which is 12.1m long, and all the truck measurements were taken into account using, in this case, a 12m long truck. After a context and weather analysis, the best months for touring would be February, March and April because of the lower levels of precipitation and transfer weather. Having researched various social and economic factors, these 13 communities were chosen for the start of the tour:



Beyond Borders

The Library at the Border Wall as a Hub for Cultural Exchange



The Tiny Library is located in Bethlehem, on a section of the 7500m wall between Palestine and Israel. The library will be a place of **encounter** and **dialogue**, and a symbol of **cultural knowledge exchange**. The library's architecture, deliberately placed on the Palestinian side, allows visitors to make physical and symbolic **connections**. Sharing learning materials aims to bring people together by creating a basis for discussion. The wall is incorporated into the design.

Visitors start on a descending level that allows the wall to disappear from view, covered with transparent fabric, symbolising the opposite of the impenetrable wall. An exchange wall between the two sides allows people from either side to remove the inclined books. So the more they take, the more their knowledge grows and the more they come into actual contact. Two rising prisms are connected by views of the sky. A central open-air area creates space for encounters and the exchange of knowledge. The three most important books of the monotheistic religions are also symbolically presented here and can be experienced via audio books, once back at the top. Through these encounters and the acquisition of knowledge, mutual understanding and togetherness **Beyond Borders** can be promoted.



one roof library

The library is situated in a remote Kelabit indigenous village in Bario, Sarawak, Malaysia. Perched at 3500 ft above sea level, surrounded by tropical rainforest, reaching this village requires a flight from the nearest town or a 16-hour journey on a dirt road. Due to its isolation, the village faces limited resources and opportunities.

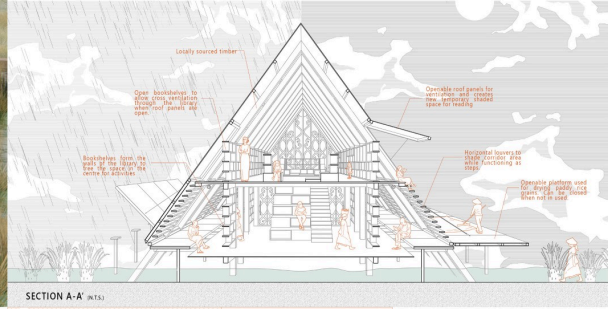
The Kelabit people primarily rely on paddy farming and are known for their famous Bario rice. **Planted amidst the paddy fields, the library offers shade for farmers to rest and read after working in the fields.** While waiting for their rice grains to dry, which requires mixing every 30 minutes, farmers can step in the library and enjoy a book.



The Kelabit community's rich culture and language are under threat, classified as a UNESCO endangered language. With many young Kelabits migrating out of the village and losing their traditions, the library aims to not only **educate the older generation but to preserve the Kelabit language and traditions for the young children.**



MASSING & CONCEPT DEVELOPMENT



SECTION A-A' (N.T.S.)

GROUND FLOOR PLAN 1:200



FIRST FLOOR PLAN 1:200

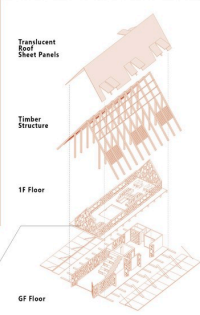


LEGEND

- 01 Entrance
- 02 Adult Library & Multipurpose Space
- 03 Drying Rice Deck
- 04 Audio Visual Room
- 05 Music Library Room
- 06 Children Library
- 07 Digital Space
- 08 Storage Area

FACADE

The facade is a timber screen pattern inspired by the traditional Kelabit art on the traditional instrument called the Sape.



PAPER PAVILION

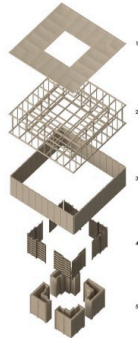
A tiny library designed for inhabitants of Al Zaatari refugee community, Jordan.

The simple paper materiality of the construction allows repairs to be made with no previous building experience. The use of paper is also affordable and 100% recyclable, making it both economically and environmentally sustainable.

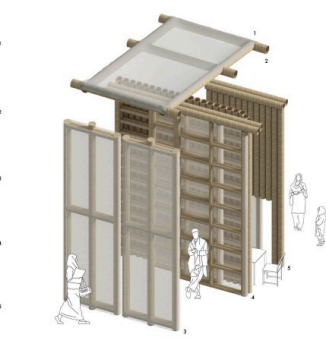
The pavilion aims to create openly available sanctuaries of knowledge. Architecturally, this translates through the implementation of semi-transparent materials and unobstructing partitions such as pivot and sliding doors. As opposed to conventional doors, these maintain fluidity as they are never truly open or closed. Semi-transparent paper complements this by reducing visual segregation and introducing light to otherwise poorly lit areas.

Free flowing porosity can also be observed in plan, where an outer circulation corridor is lined with books and is openly accessible from all sides through revolving doors. This symbolises the access to knowledge being available to all, regardless of geographical and socioeconomic backgrounds. Openness is carried on through to the centre, where a courtyard provides dynamic spaces for community gatherings, interactive learning sessions and screenings.

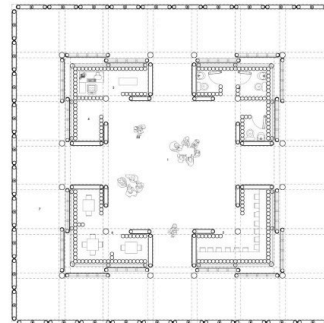
The central courtyard plays a key role in creating more than just a library; the public space stimulates community interaction and the passing on of knowledge through storytelling. This is a vital form of learning, especially within a refugee community where literacy rates are often low. This space, coupled with the diverse backgrounds of people from the community, successfully creates a melting pot of knowledge and a sanctuary for learning.



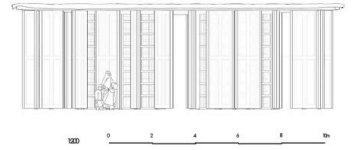
1. Roof: Protective waterproof canvas to only use paper material



2. External roof: Pivoting, semi-transparent paper doors allow natural light in, eliminating reliance on artificial light



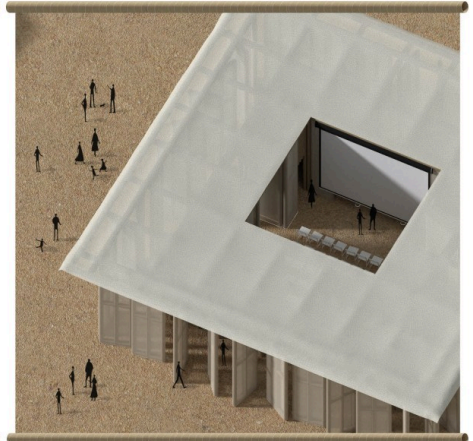
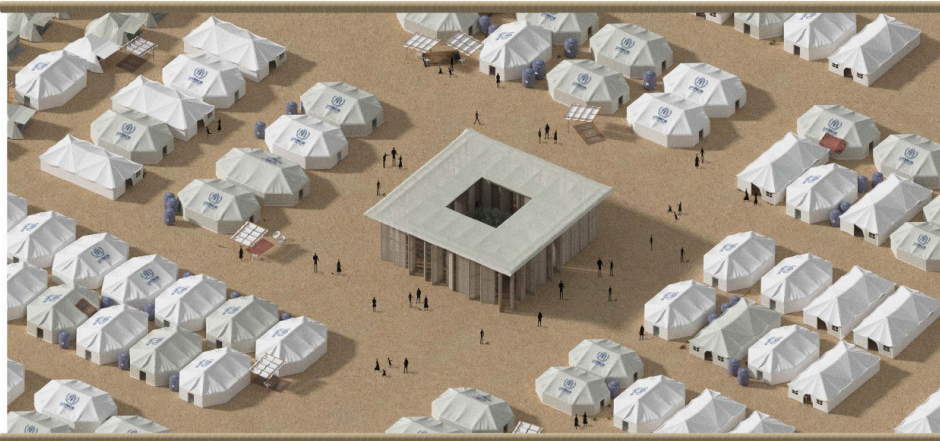
3. Core: Housing for sanitisation, study spaces, admin, storage and digital area



Elevation showing pivoting door facade with book displays behind



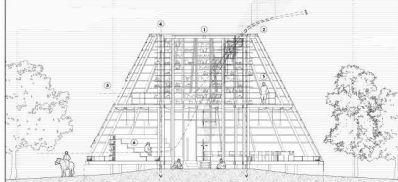
Section showing outer circulation corridor and internal community courtyard



The Nomad is a tiny library: common shelter inspired by traditional Mongolian houses. To make itself belong to Mongolian nomads, its structures with traditional materials are light, local, and modular, creating the aesthetic of Mongolian spirit. The Nomad contributes itself not only as a library for people to learn and develop themselves for a better future but also simultaneously as a communal shelter to reflect on the past, to what they have inherited from their ancestor. Adding a center court and food stock area critically integrated Mongolian life into the building. The Nomad, therefore, is not only a tiny library but a place where nomads broaden their world, rest from long travel and have good memories with their comrades and family.

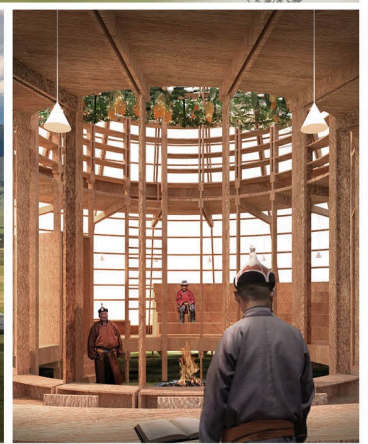
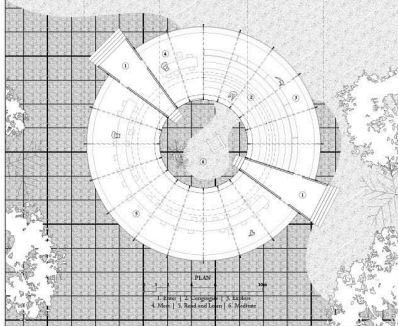


Memorable Inspiration	Conceptual spirit	Sustainability	Serve extra local needs	Spatial Connection
Mingchuan part in a spatial and material inspiration	Great outdoor court while keeping traditional circle space character.	Passive ventilation through core and shaded external light from this exterior site	Segmented social and reading spaces vertically. Bring culture and lifestyle to the library	Traditions and new learning spaces are vertically integrated



SECTION

1. Glazing Skylight | 2. Ventilation and Smoke Channel
Movable Fabric Curtain | 4. Rain Collecting Gutter and Pipe
5. Food Sock | 6. Stepped Seats with Backshelf and Storage



Textile Tome

The Textile Tome, serving as a textile-infused knowledge hub, empowers the Karen community of Mae Hoi Village to actively exchange, celebrate, preserve, and promote their treasured cultural tradition, weaving together their heritage with the outside world.



Site Selection:

Situated 2,100 meters above the sea level, Mae Hoi Village is home to a self-sustaining Karen community – group of refugees residing in the mountains. With approximately 360 residents, they cultivated their unique traditions, language, and clothing style that deeply embedded with their rich cultural heritage. The village is located near the city of Chiang Mai, which holds a strong Thai culture and the history of Northern Thailand.

Issue:

The Karen communities face the challenge of statelessness due to the longstanding political issue with the military. The situation exposes them to discrimination and neglect, resulting in a lack of recorded local history and limited educational opportunities. As a minority in Thailand, the Karen's culture is gradually fading resulted in the disappearance of the alphabets of their language, remaining only the treasured art of weaving. The rapid advancement of technology and the evolving world further widens the gap between them and the mainstream society that could cause further risks to the preservation of their culture.

Proposal:

In the proposed tiny library, the threads of the Karen communities' legacy are intricately woven together with textile-written fabric, symbolizing the unique cultural "language" in an artform that express their identity and heritage to the outside world. The library nurtures a space where the Karen community can gather to share stories, exchange skills and knowledge, and ensure that their cultural tradition continues to thrive.

Mae Hoi Village's Clothing Culture

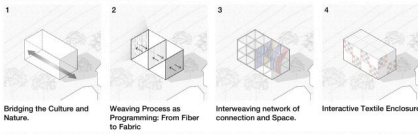


Karen's Textile Making Process



Design Strategy

Textile Tome sits at the heart of the Mae Hoi community overlooking the agriculture landscape which offers visitors the opportunity to immerse themselves in the complete process of fabric making (1). The spaces are divided into two major areas, weaving center and the library, that are integrated to the overall experience (2). Symbolizing the interconnected network within the community and their connection to the outside world, the cotton threads are integrated into design elements that weave their way throughout the space and even serve as bookshelves and interactive learning wall (3). Wood, polycarbonate sheets, and the Karen's fabric are used to create the enclosure of the space which results in unique textile-like patterns throughout the day (4).



Knowledge Hub

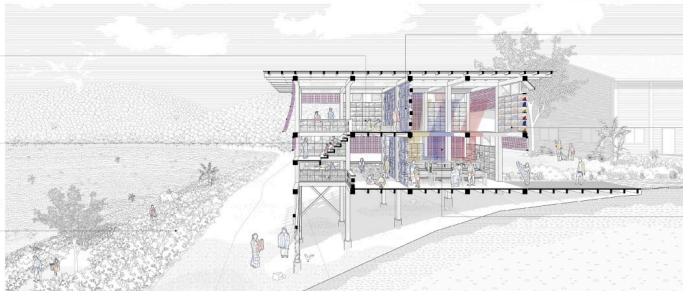
Provides resources and educational materials to empower the younger generation aspires to bridge the gap between the community and the rapidly evolving world.

Cultural Exchange Plaza

Features communal glasschairs that encourages the villagers to gather, engage, and exchange their knowledge.

Cotton Farm and Open Landscape

Promotes the opportunity for the visitors to observe and acknowledge the complete process of textile weaving – from the initial stages of cotton cultivation to the final creation of their intricate textiles.



Interactive Threads Wall

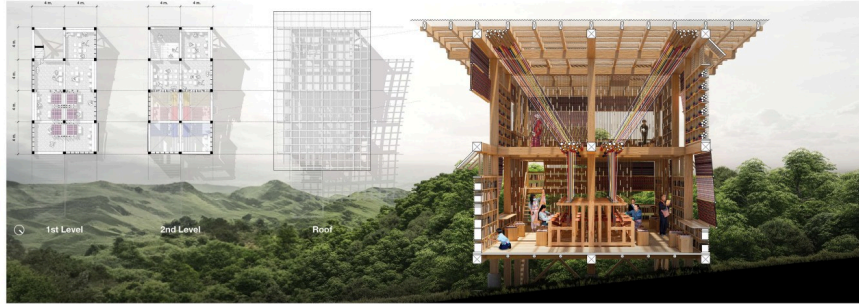
Encourages the community to share ideas of patterns and textiles through the interactive threads wall, fostering collaboration and creativity. Together with the books, the board generate endless inspirations.

Textiles Archives

Collecting and preserving the tribe's textiles and yarn for historical and future research purpose, ensuring the preservation of their culture.

Weaving Center

Fostering the sense of empowerment within the community, the area becomes the center for cultural revitalization that inspire explorations and celebrates the Karen's heritage through the art of weaving.





NASIKI (root.) yanomamö

ISSUES FACED BY THE YANOMAMI TRIBE

The Yanomami inhabit the Orinoco and Sierra Parima region of southern Venezuela as well as the Amazonian region of Brazil. One of the most remote indigenous communities in the world, numbering over 1000. The Yanomami have been able to preserve many of their traditions and maintain a symbiotic relationship with nature. However, the devastation of the environment, health, social organization and culture of the Yanomami, particularly in the State of Roraima but also in the State of Amazonas, Venezuela, had reached a humanitarian scale and intensity that the Federal Prosecutor of Brazil described as 'genocidal'. These problems followed by illegal mining expeditions led to the pollution of rivers and the forest, thus threatening the very existence of ancestral tribes.



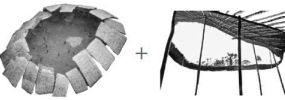
SOLUTIONS

Nasiki not only provides a refuge for knowledge but for also cultivating cultural identity and survival of the tribe. Nasiki sustains learning spaces that allow the distinctive connection to nature that the Yanomami tribes deem vital. These spaces include the essential hearth/ central space for exhibitions and storytelling events that would allow for community strengthening and development as well as botanical studies since they know how to use a range of about 500 plants for food and medicine. Fishing, gardening, and gathering studies are also implemented as they nourish themselves partly by these activities. Also, due to the nature of the building materials and the Yanomami's extensive knowledge of construction, Nasiki could become temporary learning shelters used during tribe relocation for emergency situations. Finally, Nasiki provides human rights learning spaces that are undemanding for social justice, specially for these genocide and dangerous times for the tribe. Nasiki is a set of spaces that would allow the Yanomami communities to dream and prepare for a better tomorrow while embracing their roots and teaching their next generations to do so.

MATERIALITY



DESIGN CONCEPT

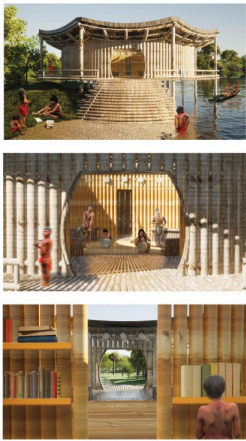


EXPLODED DIAGRAM

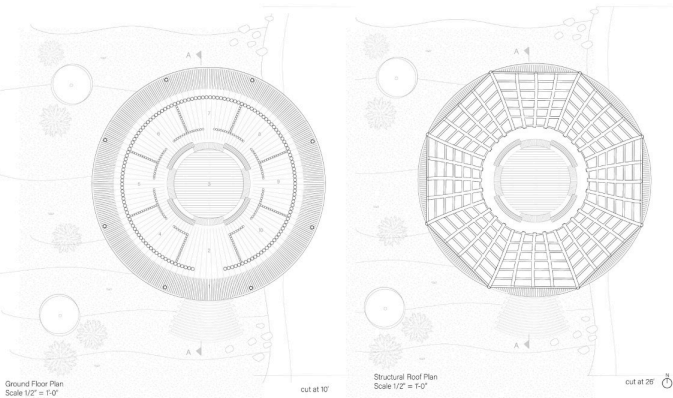


DESIGN PROCESS

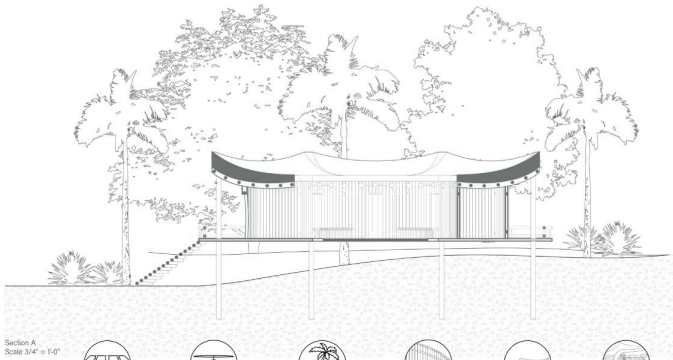
The Shabonos are the original Yanomami tribes' communal round houses with curved roof and open central space known as the hearth of the house. The Shabonos were used as a vernacular case study to design contextually and implement passive design strategies. Also, the Orinoco River is purposely cited as the main connector for allowing travel possibilities to tribes nearby. For the vernacular design elements, a circle is used as the geometrical configuration of the space since it represents the direct union between heaven and earth. These are present throughout the whole plan. Due to the nature of the site and tropical climate, local, reusable, and sustainable materials are proposed to construct Nasiki. As passive design strategies, cross-ventilation is present through apertures of walls (palm trunks), thermal comfort (thatch roof) and re-circulation of rainwater to the river (floor apertures of central space).



SECTION - VERNACULAR DESIGN ELEMENTS AND PASSIVE DESIGN STRATEGIES



1. Transitional Space
2. Entryway
3. Hearth/ Multi-use Space with Wooden Posts Seating and Bridges (Storytelling Events and Craft Exhibitions)
4. Arts & Crafts Space
5. Reading Space
6. Connection to Nature Training (Sustainability-focused)
7. Botanical Studies for Nutrition and Medicine
8. Fishing and Gardening Learning Space
9. Human Rights Learning Space
10. Cultural Knowledge and Identity Learning Space



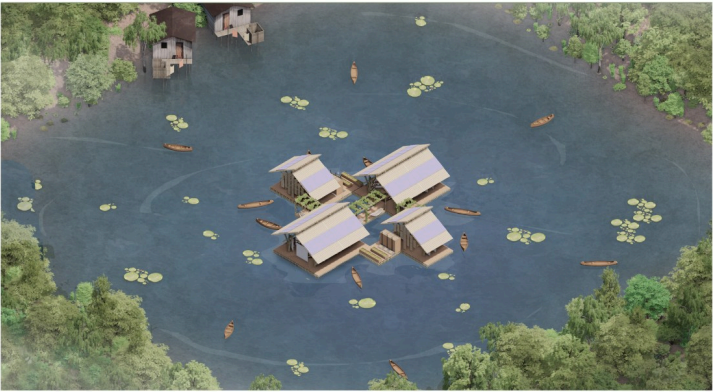
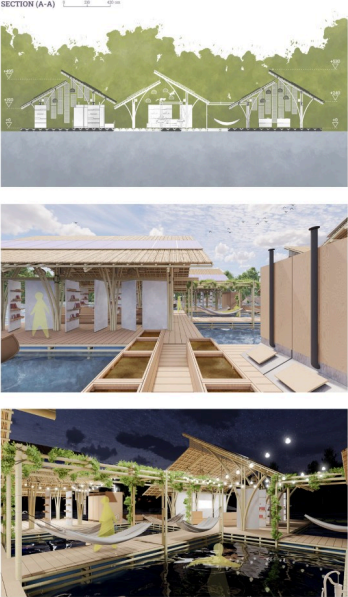
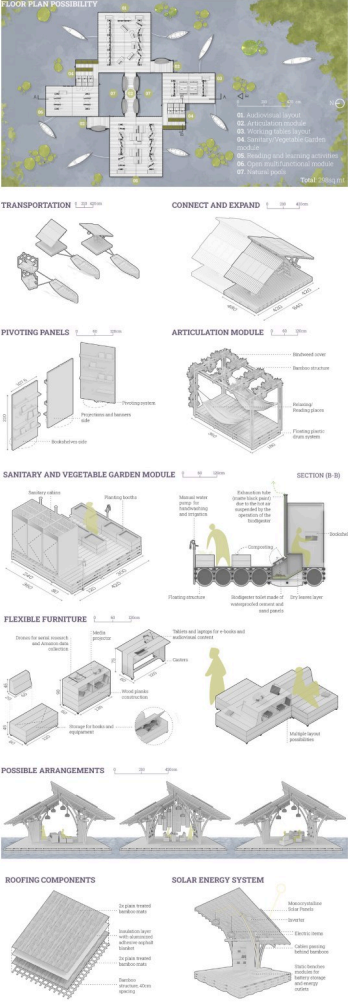
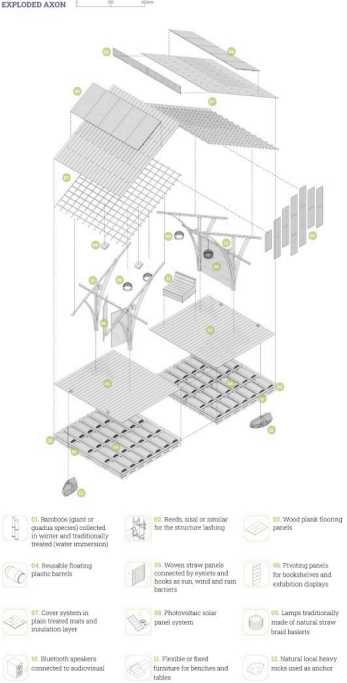
- Shabono communal round house with curved roof and open central space (hearth)
- Circular geometry representing the union between heaven and earth
- Use of local, reusable, and sustainable materials to construct
- Cross-ventilation through apertures of walls (palm trunks) and Bernoulli's principle
- Thermal comfort in cold and hot climates during year (thatch roof)
- Re-circulation of rainwater to the river (floor apertures in central space)

Librarianha

The Amazon biome, with a hot and humid atmosphere, is covered predominantly by dense, moist tropical forest with several types of vegetation and at least 6,000 species of trees, as well as floodplain and swamp areas, bamboo, and palm trees.

In this Brazilian Amazon context, more than 350 *ribeirinhas* communities (about 4,000 people) live on the banks of rivers in traditional wooden residences, located in isolated places, their houses are mostly suspended on stilts with respect to the water flows. With a strong bond with nature, the riverside dwellers survive on artisanal fishing and planting, traveling by canoes and boats, with reduced access to good-quality services, especially education and health.

Using local building materials and techniques combined with contemporary technology and architecture, the Librarianha proposal aims to provide this social group with the opportunity to engage with distinct reading and learning formats and activities that involve current and ancestral knowledge. Social, environmental, and sustainable premises (nature and community respect and self-sufficiency aligned with culturally accessible resources) have guided the design of the floating mutable and flexible modules.





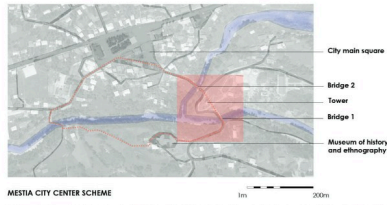
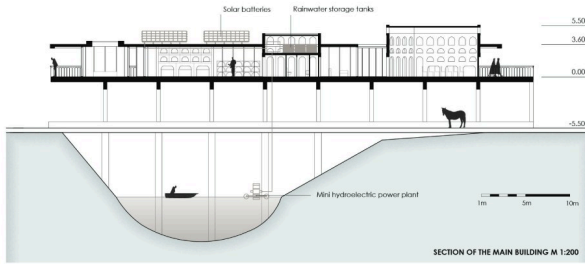
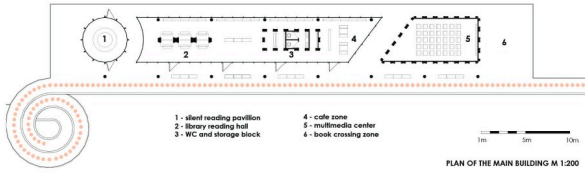
Site is located in the city of Mestia in Svaneti region, in Georgia (Sakrebulo). Being regional center and a local built center in the mountains, the city has been actively developing recently. Despite the creation of a modern built and transport infrastructure there are no large educational institutions and other important elements of the educational system in the region. Young people go to study in big cities, suffer there and rarely return to their native places.

In the eastern part of the city there are two bridges over the Mulkha River, which are currently poorly adapted to the pedestrian function and require reconstruction. Laying a new pedestrian route from the city center to the Museum of History and Ethnography would allow connecting the two shores of the city. The idea of the proposal is to include elements of library functionality in the network of developing transport and tourism infrastructure.



SITE LOCATION

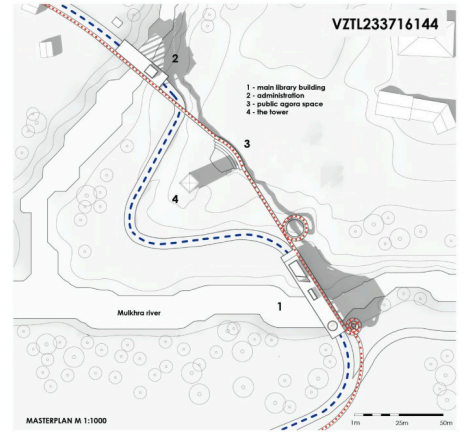
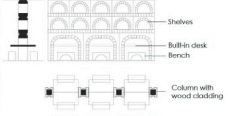
CURRENT STATE OF THE BRIDGES



The new buildings are to be constructed above the bridges during its reconstruction process. There are two entries through the bridges. Main functions developed along the route. Main building contains library hall, multimedia center, silent reading pavilion and bookcrossing zone. Further along the route you can get to public square zone near the tower and then exit through another building. Visitors can get back at one entry road in every reading zone and then return it at the exit.

Outdoor cladding and interior furniture are inspired by traditional swan home environment including details made from wood.

As buildings located above the water it's possible to provide electricity there using portable hydroelectric generator. Also it's appropriate to use a huge roof area to place solar batteries and water collection.



SITE LOCATION



INTRODUCTION

Afar, Ethiopia is a region known for its rugged and dramatic landscapes, including the Danakil Depression, one of the hottest and driest places on the planet. The region is also home to the Afar people, who are known for their nomadic lifestyles.

Due to its remote location and harsh living conditions, the Afar region has one of the highest illiteracy rates in Ethiopia. According to a report by UNESCO, the adult literacy rate in the Afar region is only 18%, which is far below the national average of 69%. This can be attributed to limited access to educational resources, poverty, and cultural beliefs that prioritize traditional pastoralist practices over education.



Culture



Concept



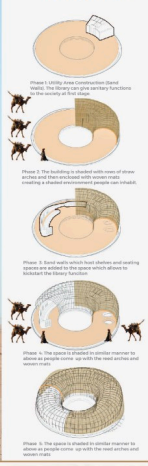
Our architectural concept for the tiny library is inspired by the nomadic lifestyle of the Afar people. The library is designed to be carried by camels, making it easy for it to reach even the most remote parts of the desert. It can be built in phases, with its simple yet practical design making it easy to add new elements as required.

The project also makes use of degradable sand walls that can host functions such as shelves and seating. Once the inhabitants leave the space, the walls will naturally bio-degrade, and mix to the ground leaving no lasting impact on the environment.

THE NOMADIC LIBRARY



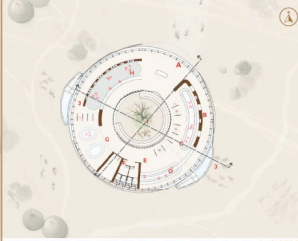
Library Phases



SITE PLAN



- LEGEND
- A. Main Entrance
 - B. Main Library Space
 - C. Cattle Watering & Shed
 - D. Interior Courtyard



- LEGEND
- A. Reception (Info Desk)
 - B. Main Reading Space
 - C. Private reading spaces
 - D. Homework Platforms
 - E. Composting Toilets
 - F. Storage
 - G. Digital Pods
 - H. Community Workspace
 - I. Library Courtyard
 - J. Cattle Water Shed

3D VISUALIZATIONS

