



Winners Announced For “Tree House 2024 Architecture Competition”

Archetype team - 31/10/2024

The Tree House 2024 Architecture competition challenged participants to go on a nostalgic trip down memory lane and picture a lighthearted home that prioritizes solitude and fosters inner tranquility.

Participants had to select the location for the proposal, such as coastal areas, riverbanks, mountains, forests, urban environments, or even in backyards. Participants from over 37 countries came up with their creative and sustainable design solutions to cater to this spatially challenging Architectural problem.

Volume Zero Competition thanks all the competitors for participating in this competition and for contributing to this competition's research.

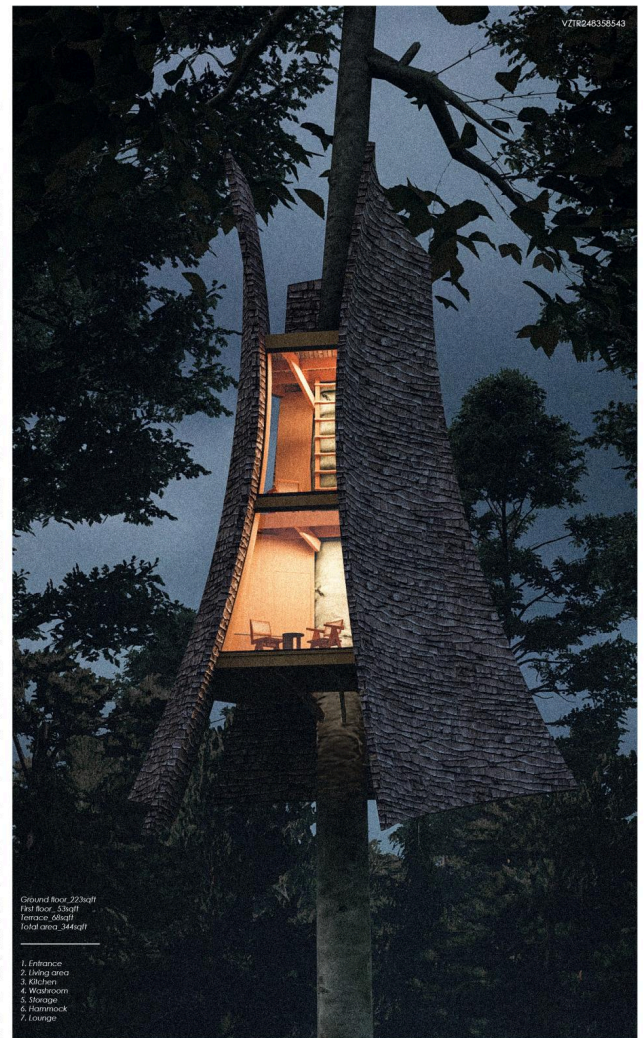
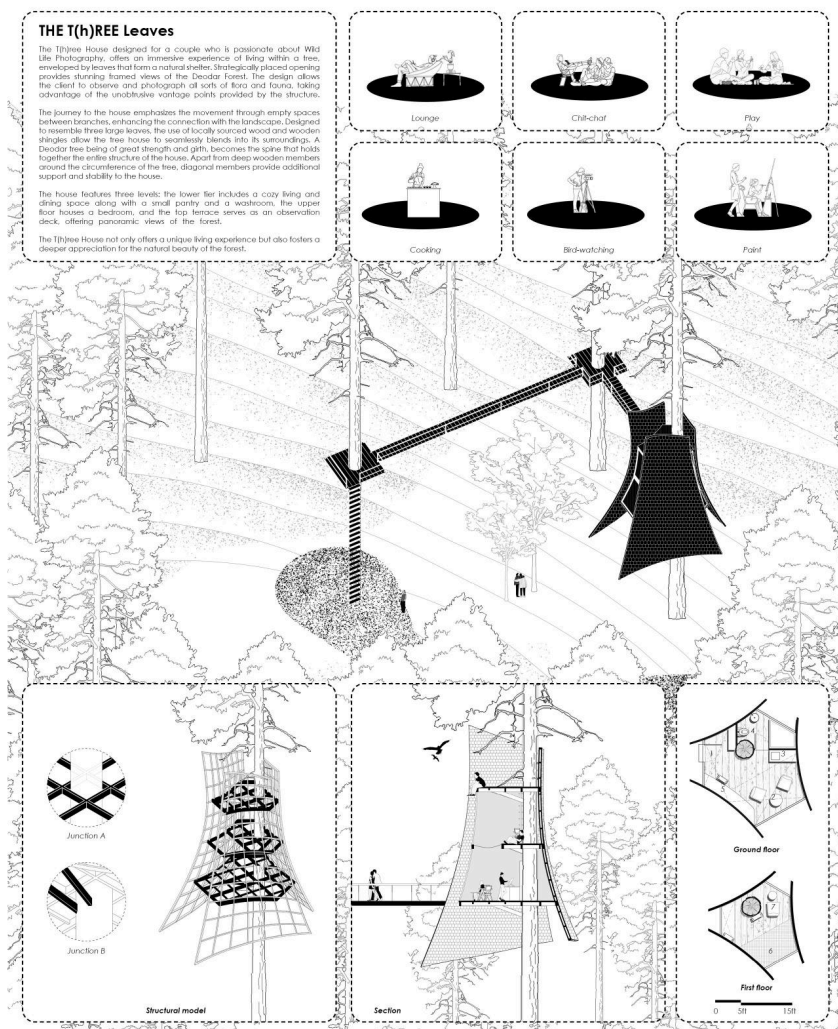
The esteemed jury for judging this competition consisted of **Sigurd Larsen** (Sigurd Larsen Design & Architecture), **Gonçalo Marrote** (Madeiguincho), **Olav Bruin** (Atelier Nomadic), **Ivan Esqueda Martínez** (em-estudio), **Sergio Araneda** (SAA Arquitectura + Territorio), **Harikrishnan Sasidharan** (NO Architects Designers and Social Artists), **Huynh Tran** (H2 Architects), **Chinmay Laiwala, Jigar Asarawala & Tarika Asarawala** (Neogenesis+Studi0261), **Yang Fei** (Field Object Lab).

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 the **Tree House 2024 Architecture Competition** can be found [here](#).

FIRST PLACE

THE T(h)REE Leaves

Karan Bhambhani, Ishika Soni & Aaryan Soni
India



The T(h)ree House designed for a couple who is passionate about Wild Life Photography, offers an immersive experience of living within a tree, enveloped by leaves that form a natural shelter. Strategically placed opening provides stunning framed views of the Deodar Forest. The design allows the client to observe and photograph all sorts of flora and fauna, taking advantage of the unobtrusive vantage points provided by the structure.

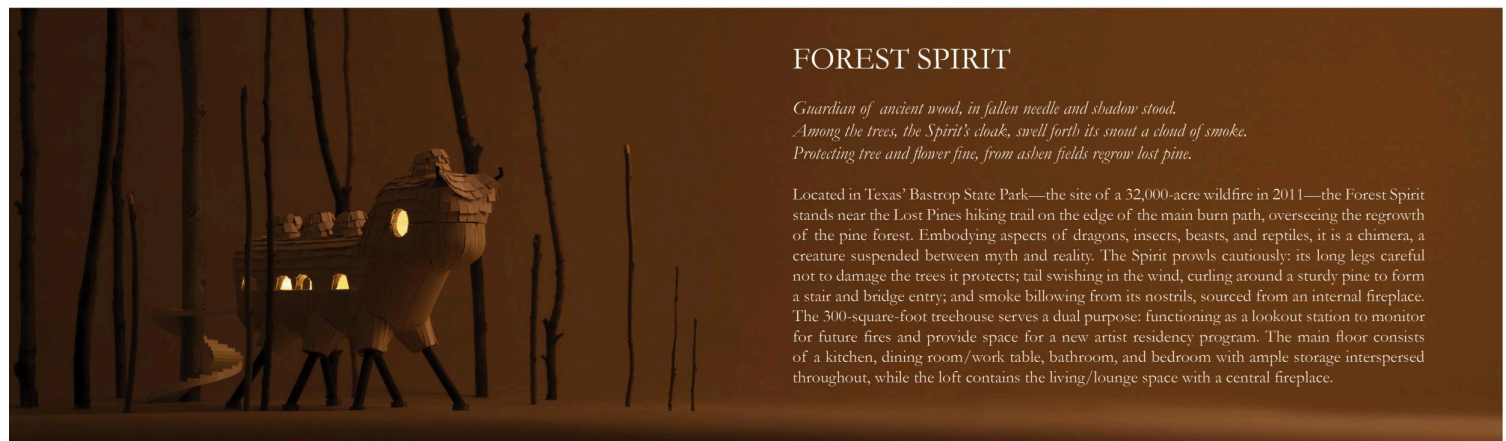
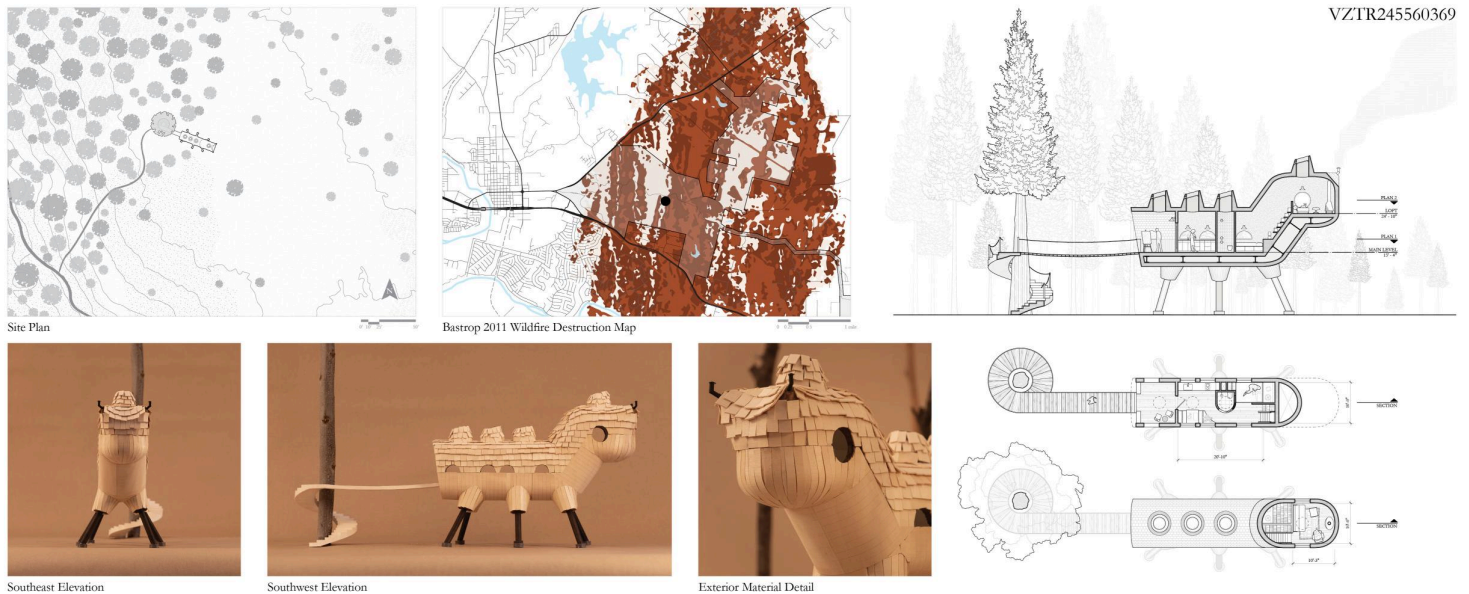
The journey to the house emphasizes the movement through empty spaces between branches, enhancing the connection with the landscape. Designed to resemble three large leaves, the use of locally sourced wood and wooden shingles allow the tree house to seamlessly blends into its surroundings. A Deodar tree being of great

strength and girth, becomes the spines that hold together the entire structure of the house. Apart from deep wooden members around the circumference of the tree, diagonal members provide additional support and stability to the house.

SECOND PLACE

FOREST SPIRIT

Christopher Loofs and Jordan Loofs
United States



Located in Texas Bastrop State Park - the site of a 32,000-acre wildfire in 2011 - the Forest Spirit stands near the Lost Pines hiking trail on the edge of the main burn path, overseeing the regrowth of the pine forest. Embodying aspects of dragons, insects, beasts, and reptiles, it is a chimera, a creature suspended between myth and reality. The Spirit prowls cautiously: its long legs careful not to damage the trees it protects; tail swishing in the wind, curling around a sturdy pine to form a stair and bridge entry; and smoke billowing from its nostrils, sourced from an internal fireplace. The 300-square-foot treehouse serves a dual purpose: functioning as a lookout station to monitor for future fires and provide space for a new artist residency program. The main floor consists of a kitchen, dining room/ work table, bathroom, and bedroom with ample storage interspersed throughout, while the loft contains the living/lounge space with a central fireplace.

THIRD PLACE

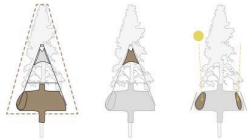
Sugi - house

Sugi-house



Sugi-house is a haven for a creative couple, nestled in the mountainous peaks of Yakushima island along a hiking trail. The treehouse is a serene workshop for the couple as they enjoy living close to nature and crafting with materials sourced from the forest. It is constructed using locally sourced, sustainable materials to ensure minimal environmental impact. Effective insulation provides comfort for low temperatures during periods of snowfall, while three-way cross ventilation cools the building through the warm, tropical seasons.

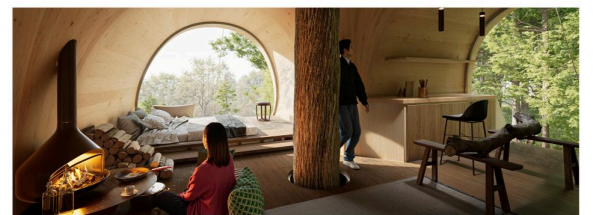
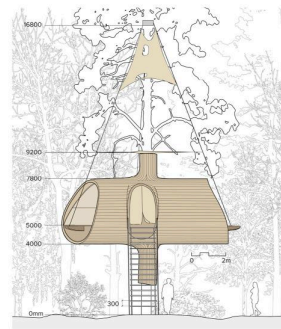
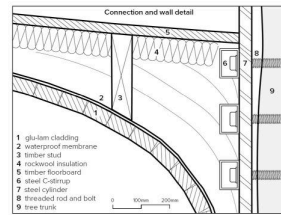
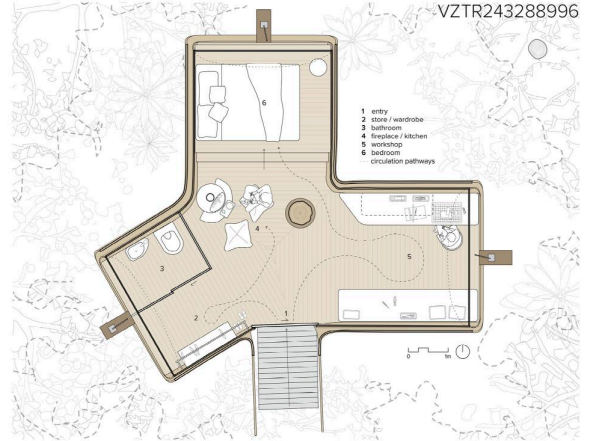
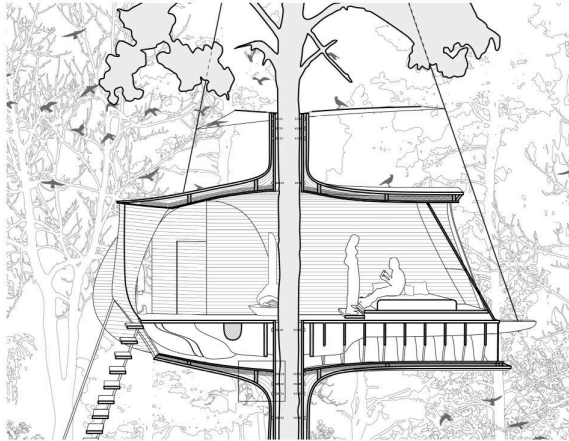
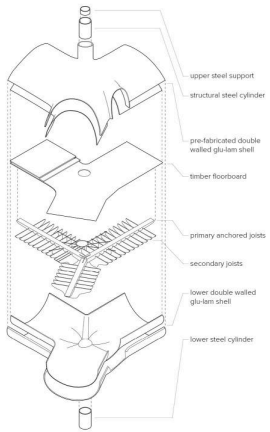
The treehouse's design mimics the way branches extend from a tree trunk. The zones are arranged close to the trunk for structural stability.



The tree's **triangular form** is emulated and completed by the treehouse below. It gently wraps around the tree to establish a harmonious visual connection.

Triangular fabric pieces suspended @ 2m above ground, serve as **wayfinding markers** to indicate the location of the treehouse. Navigation made easy in the dense forest.

Circular, slanted windows enhance daylighting within the treehouse. The island's steep sunlight is further diffused by the canopy so opening natural light is even.



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The treehouse's design mimics the way branches extend from a tree trunk. The zones are arranged close to the trunk for structural stability.

Honourable Mentions:

Honourable Mention 1: Tree House

Dena Khaksar & Mohammad H Rajabi
Netherland



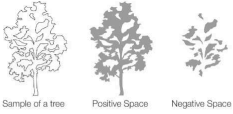
Tree House,
Seeking through the negative space in nature

Basically, we use the negative space of nature for habitation. Just as our primitive ancestors used to live in caves among mountains, a tree house and tower house in the negative space of a tree. For us, the idea was to focus on the unoccupied areas among the leaves of a tree, aiming to make the best manipulation not only in form, but also in the material body.

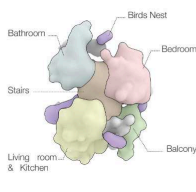
For this purpose, the chosen tree species and its canopy are the resulting point cloud of the tree's occupied areas. The negative areas among them defined the available spaces for construction. We used a set of controlled points to generate metaballs to surround these areas, and the output gave a variety of choices, from a small nest to a huge cloud suitable for a human-scale place. This process was even repeated several types of trees, and finally, the ones with less dense leaves provided us with better choices.

The construction process starts by tessellating the white shape into 3D-printed tiles installed with a substructure, and all constructed elements are assembled with dry joints respecting sustainability and deconstruction. Additionally, the chosen material is transparent PLA, which brings shadow and light effects to the interior while maintaining the visual connection between inside and outside.

Concept:



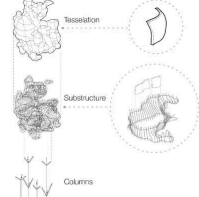
Programming:



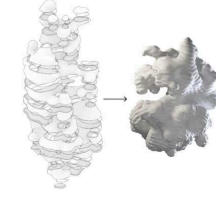
Plans:



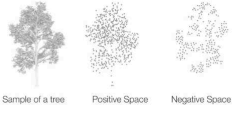
Construction parts:



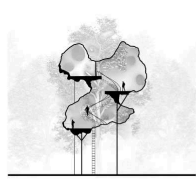
Assemblage:



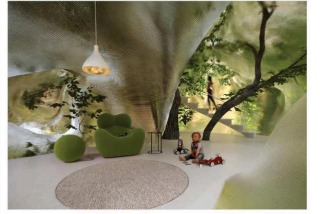
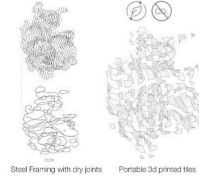
3D Scanning:



Section:



Deassemblage:



Metaball shaping process:



Honourable Mention 2 - BEHIND THE CURTAIN

Yuejun Han, Yifan Zhang & Xinghang Wang
United States



BEHIND THE CURTAIN

VZTR242733335

Introduction

The site located at Alentejo, Portugal, features expansive plains and rolling hills, creating a tranquil and scenic landscape. The area is dotted with stone piles (Pousa Gera), which are tall and umbrella-shaped, adding a distinctive green touch to the terrain. The tree house is situated on one of these large stone piles.

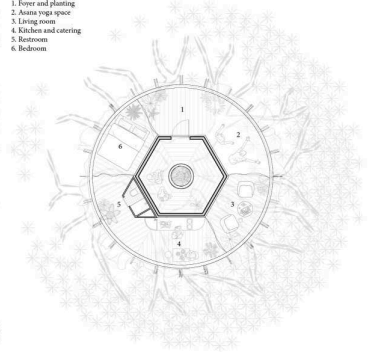
Site Plan 1:500

0 5 10 20m

Plan 1:75

1. Foyer and planting
2. Asana yoga space
3. Living room
4. Kitchen and catering
5. Bathroom
6. Bedroom

0 1 2 4m



Canopy / Asana

Here, curtains blur the separation between home and nature, bringing in the tree without stability while maintaining privacy.

Trunk / Meditation

The stable trunk provides a secured haven for inward meditation, allowing one to transcend worldly distractions and attain inner peace.

Roots / Connection

Here, practitioners forge a connection with the secular world, sharing the spiritual insights they have cultivated with others.

ELEVATION 1:100

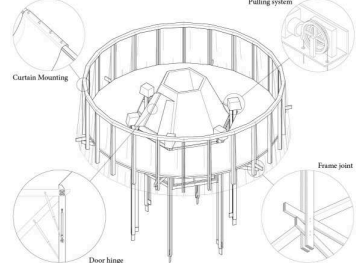
0 2 4m

SECTION 1:100

0 2 4m



AXON



Honourable Mention 3 - EMBRACING MONSOON

Racin Chan, Sereynet Han & Saito Chan
Cambodia

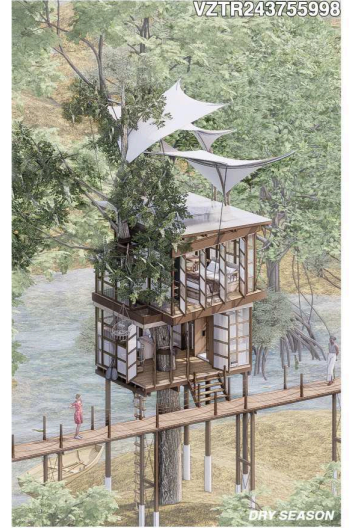
EMBRACING MONSOON IN THE MANGROVE FOREST

SITE & SCENARIO

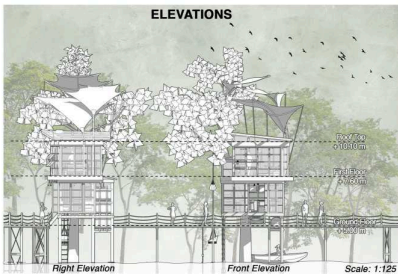
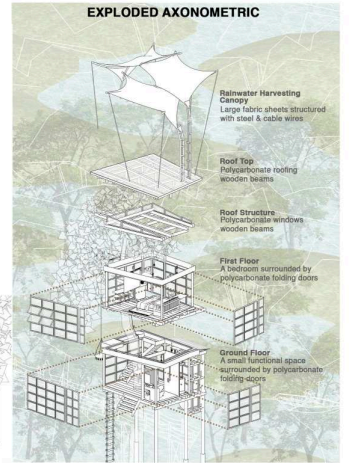
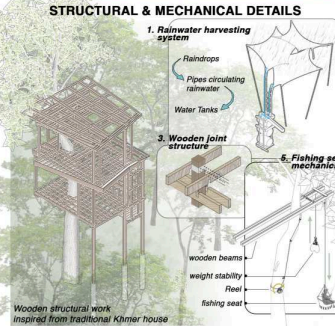
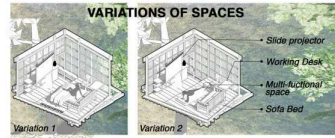
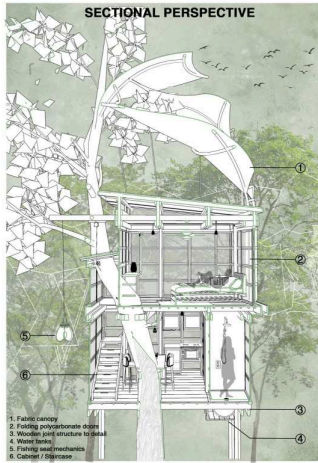
A couple fishmongers take their life journey to a mangrove forest in Cambodia. Flooded during the rainy season, the forest transforms into a fisherman's paradise. Here, the couple can cast their nets amongst the tangled roots of ancient trees, hoping to catch a bounty of silver perch, plump mud crabs, and elusive catfish – a perfect harvest for their business. Their home, a small, two-story treehouse, built on stilts to rise above the seasonal floods, is designed specifically for their new life.

'MONSOON' the concept

The design of this treehouse is heavily influenced by the monsoon seasons along the Cambodian coasts. To adapt to the dramatic swings between the wet and dry seasons, the treehouse incorporates several ingenious features. During the rainless downpours of the wet season, a mechanical fishing seat that moves vertically, provides a unique and convenient way to catch fish. Folding polycarbonate doors and windows transform the treehouse, creating a protective barrier against the driving rain while still allowing for natural light and ventilation. For the dry season, when water becomes precious, a rainwater catchment system collects and stores rainwater, ensuring a sustainable water source for everything from drinking to cleaning.



1. Dining Table
2. Kitchen
3. Water Tanks
4. Bathroom
5. Sink
6. Washing Machine
7. Fishing Seat
8. Bed
9. Working Table
10. Cabinet / Slide Projector



Honourable Mention 4 - FITOLAR

Methissa Marquetti Lazzaris De Oliveira, Thais de Oliveira Barboza & Vitor Borges Candido
Brazil

FITTO LAR

THIS PROJECT FEATURES A TREEHOUSE INSPIRED BY MATHEMATICAL **VORONOI** PATTERNS, OFTEN FOUND IN NATURE (INSECT WINGS, HUMAN SKIN, AND BOTANY). THE TREEHOUSE STRUCTURE, INSPIRED BY TREE **LEAVES**, ADOPTS A LARGE **VORONOI** PATTERN WHERE GUTTERS CHANNEL RAINWATER TO A CISTERN, MIMICKING **FOLIAR WATER ABSORPTION**. DESIGNED FOR A COUPLE OF BIOLOGISTS DEDICATED TO PRESERVING PLANTS AND ANIMALS, THE HOUSE HAS LARGE OPENING AREAS, ALLOWING DIRECT **OBSERVATION OF NATURE**.

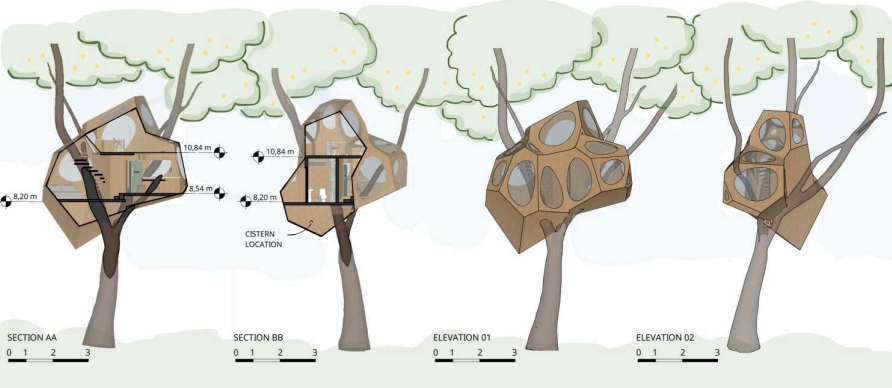
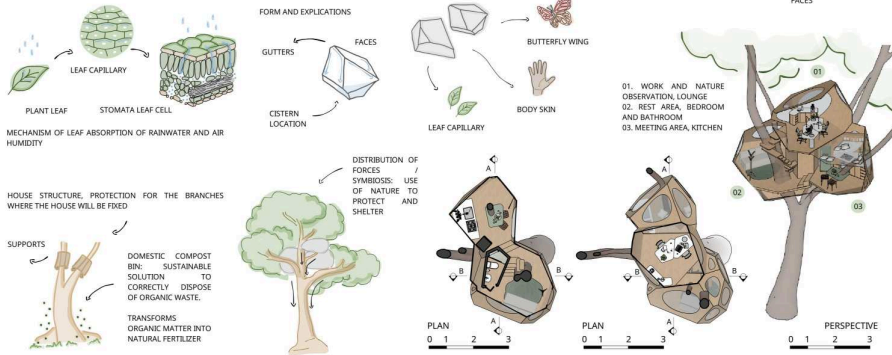
SUPPORTED BY THE BRANCHES, IT ADAPTS TO THE TREE'S NATURAL SHAPE, **INTEGRATING** INTO THE ENVIRONMENT WITHOUT CAUSING HARM. THIS CREATES A **SYMBIOTIC RELATIONSHIP** WHERE THE TREE SUPPORTS THE HOUSE, AND THE HOUSE EMBRACES THE TREE IN HARMONY. THIS PROJECT CONTRASTS WITH THE VITRUVIAN ANTHROPOCENTRIC VISION, WHICH ASSOCIATED ARCHITECTURE WITH THE PROPORTIONS OF THE HUMAN BODY. HERE, **HOME IS SEEN AS A LEAF**, APPROACHING THE HOUSE AS PART OF THE NATURAL ENVIRONMENT, HIGHLIGHTING A RELATIONSHIP OF INTERDEPENDENCE AND HARMONY, RATHER THAN A HUMAN IMPOSITION ON NATURE.

THE TREE CHOSEN TO SHELTER THE TREEHOUSE IS **THE SIBIPIRUNA, NATIVE TO BRAZIL**, WITH RAPID GROWTH AND ABUNDANT GERMINATION, IDEAL FOR REFORESTATION, GIVING IT AN **IMPORTANT ENVIRONMENTAL ROLE**. ITS YELLOW FLOWERS AND IMPOSING SIZE ARE PRAISED BY THE **COUNTRY'S RICH CULTURE**, THROUGH POEMS AND ARTISTIC EXPRESSIONS, SYMBOLIZING **BRAZILIAN IDENTITY**.

- MATERIAL:
- PERENNIAL GRASS STRUCTURAL PANELS - FAST GROWING GRASS ABSORBS CARBON DIOXIDE THROUGH PHOTOSYNTHESIS AS IT GROWS
- PANELS MADE OF FIBERGLASS WITH BIO-BASED RESIN - ALLOWS LIGHTING TO PASS
- RECYCLED GLASS

MORE FACES MORE FIELDS OF VISION AND MORE NATURAL LIGHTING INPUT

FRAME VIEW FOR OBSERVATION AND COMTEMPLATION



Honourable Mention 5: Werifesteria

Anusha Tamaskar - Soumili Ray Choudhury - Tushar Deoda
India

Werifesteria

"Oh to wander longingly through the forest in search of mystery"

Epiphyte is a plant that grows on another, deriving its nutrition and sustenance conveniently from another. The human relationship with nature is much of the same, a deeply dependant yet unacknowledged takeaway of resources without much return to nature itself. Decades of this "toxic" relationship has resulted in dire consequences for the environment, consequences which now push humankind to study nature and its resources that have been taken for granted, in an attempt to salvage all that is left.

Our treehouse design specifically caters to phytologists, botanists, wildlife enthusiasts and like-minded individuals who empathize with nature. Located at the heart of the forest, yet camouflaged to not disturb the surrounding wildlife it has been divided into two parts- one serving as the primary residence at a height whilst the other serves as the workspace closer to ground for easy access to samples or for exploration. The treehouse grows like a climber hugging the tree- a juxtaposition of the nurturer and the nurtured.



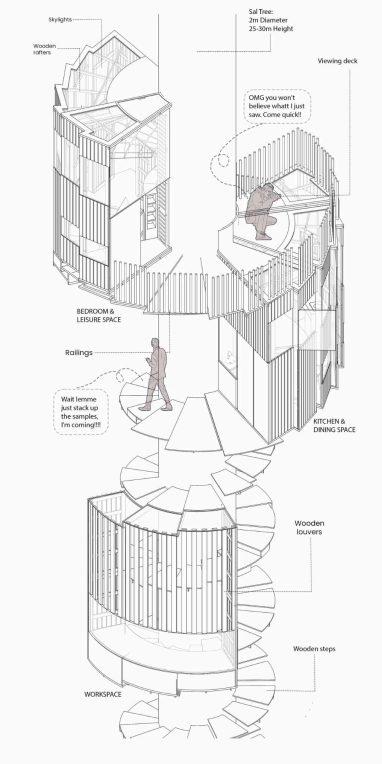
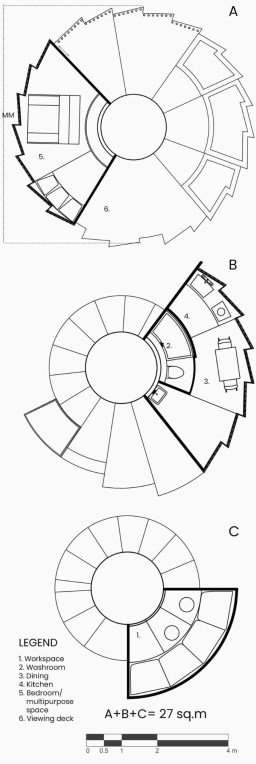
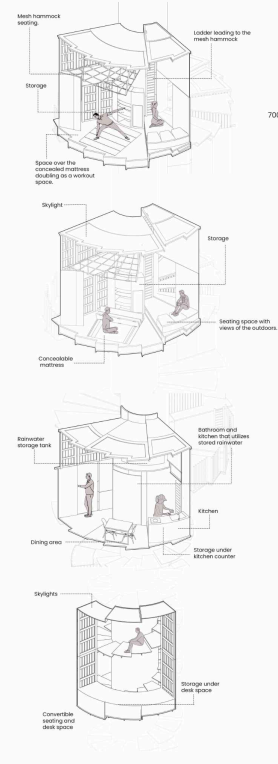
A multi functional bedroom area which is adorned by the beauty of nature.



A fully-equipped workspace for the users endowed with the serene views of the lush green outdoors.



A kitchen and dining space inclusive of sustainable practices.



Honourable Mention 6: Bean Bloom

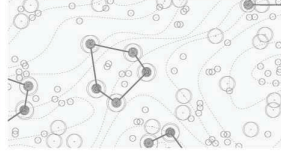
Jeslynn Tan Zi Yi, Chean Wen Bin & Woo Kai Wen
Malaysia

Vātāvana

"Vāta" means wind, and "āvana" means protection. This name encapsulates both the protection from cyclones and the serene forest setting.



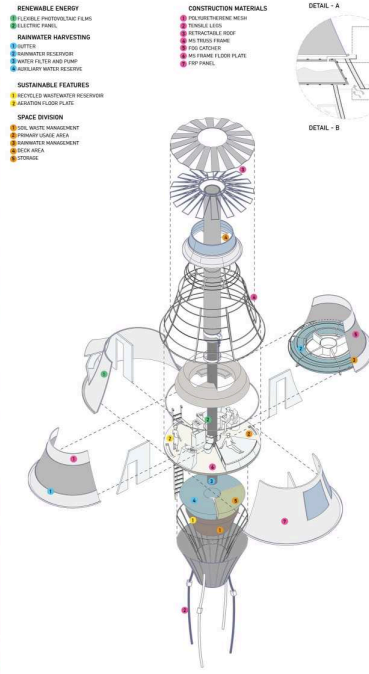
Site Map | Simlipal, Odisha



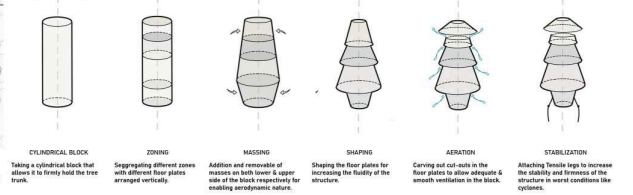
Nestled within the Simlipal Forest, an innovative tree house concept emerges, featuring an aerodynamic design that keeps the interior well-ventilated through a simple floor aeration technique. Engineered for resilience, this structure utilizes advanced stabilized legs to protect trees from uprooting, crucial in Odisha's cyclone-prone environment.

The tree houses are interconnected by suspended bridges, forming a colony that fosters a sense of **togetherness and community** within the forest's harmony, while preserving a large number of trees. Built with sustainable materials and eco-friendly technologies, this tree house offers a serene and immersive experience, allowing residents to connect deeply with the tranquility and beauty of the natural world.

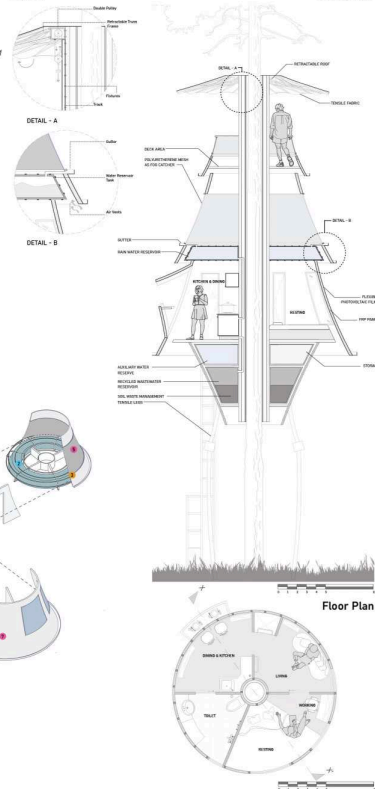
Exploded Axonometric



Design Development | Features



Details



Honourable Mention 8 - SYMBIOSIS

Liam Krusky
Canada



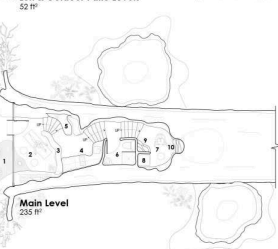
SYMBIOSIS

Humanity places an overwhelming burden on our trees. In Western Canada we live imbalanced with this most precious resource, often destroying over half of our old-growth forests. My clients — two holistic wellness practitioners — seek a residence that promotes inner tranquility and harmonizes with the forest's natural rhythm rather than contributing to its exploitation.

This design innovatively departs from traditional practices of burdening a living tree with the weight of its own pressure-treated kin. Instead, living space is carved directly into the trunk of an ancient, naturally-fallen Western Red Cedar. The unique ascending layout enhances a range of mindfulness practices, and fosters deep connections with the forest floor, tree canopy, and oneself. Living essentials are thoughtfully incorporated, with off-grid systems harnessing on-site resources and designed for easy removal after a century. All these methods ensure minimal new material and waste, and allow the treehouse to be an active part of the tree's natural transition into a nurse log at end-of-life.

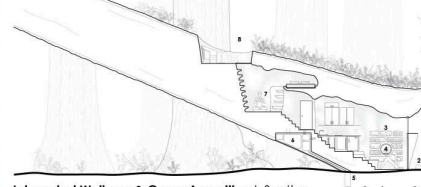
The home achieves a harmonious union between the holistic well-being of my clients and preservation of old-growth forests. It embodies a sustainable, symbiotic relationship with nature, and embraces the health benefits and child-like wonder of living within a tree.

1. Indoor/Outdoor Zen Garden
2. Wellness & Social Area
3. Bench/Storage
4. Kitchen
5. Dining/Workspace
6. Bathroom
7. Secluded Meditation Area
8. Laundry
9. Ladder to Loft
10. Loft Bed
11. Loft Bed
12. Outdoor Activity Patio
13. Nurse Log Garden

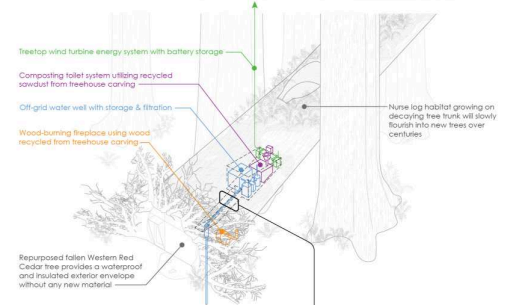
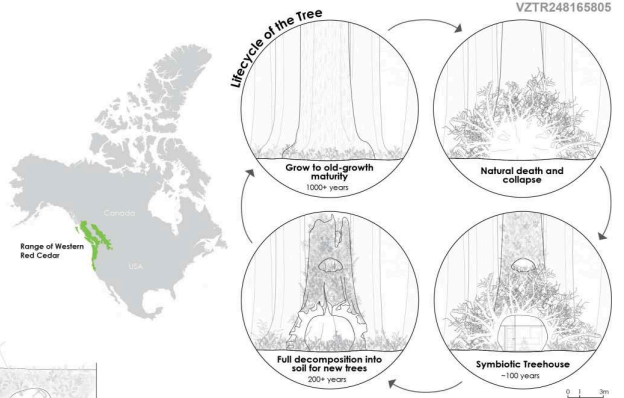


Thoughtfully Carved Spaces | Floor Plans

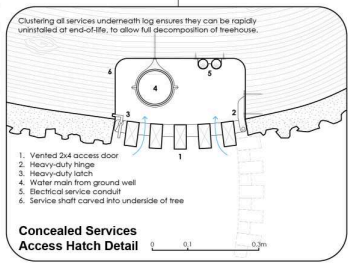
1. Intimate connection to forest floor
2. Indoor/Outdoor Zen Garden
3. Built-in Library
4. Wood Fireplace
5. Water Pump
6. Central Off-Grid Systems Area
7. Private Introspective Space
8. Close connection to tree canopy



Integrated Wellness & Green Amenities | Section



Off-Grid Sustainability



Concealed Services Access Hatch Detail

Honourable Mention 9 - KATHAROS

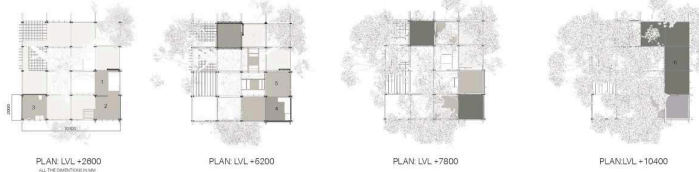
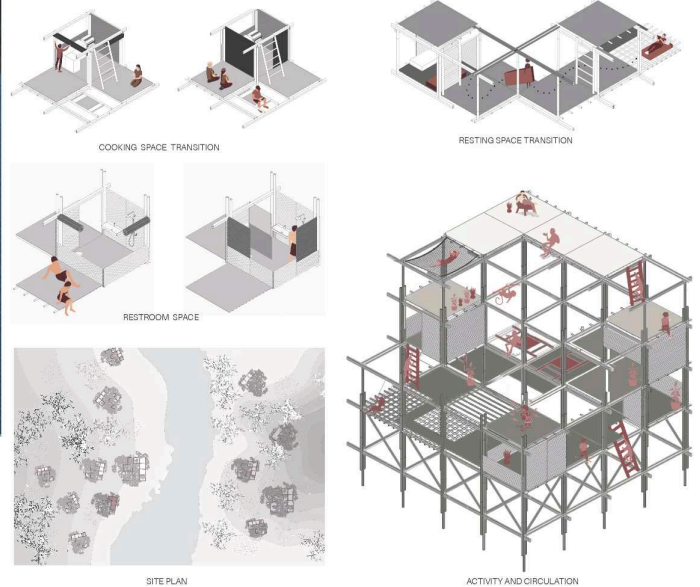
Saee Vinayakrao Kadu, Angeline Lalpeklui & Wagmode Payal Nitin
India



KATHAROS

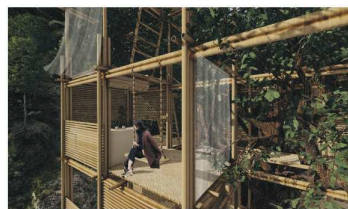
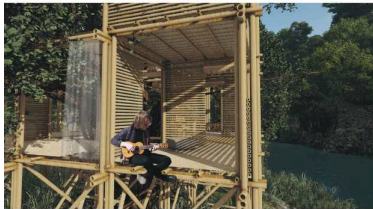
Project Katharos is seated on the misty banks of the Tlawng River in Aizawl, Mizoram. The bamboo treehouse aims to redefine the idea of a treehouse as a space that responds to the **emotional requirements** of the two individuals that inhabit it, contrasting the modern apartments which have fixed spaces for fixed functions. It appeals to the intrinsic human ideas of building intuitively in nature. The project has the potential to function as **disaster shelter** due to its ease of construction and **flexibility in volume**, applicable for different trees in the vicinity. Locally available bamboo has been utilised which makes it economically and environmentally viable.

VZTR246304644



- AREA PROGRAM
- 1 BEDROOM
 - 2 WORKSPACE
 - 3 WASHROOM
 - 4 KITCHEN
 - 5 DINING SPACE
 - 6 TERRACE
- AREA OF EACH UNIT IS 6.78 sq m
BUILT-UP: 27.04 sq m

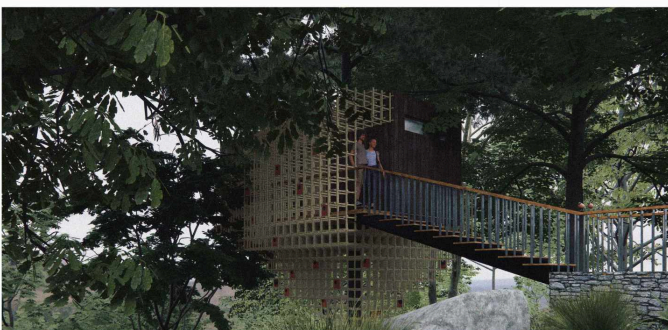
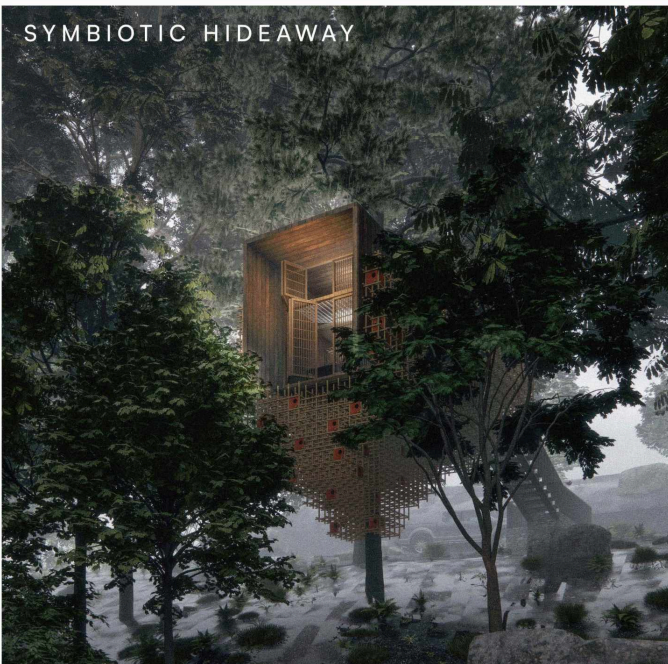
The combination of slender bamboo and flowing fabrics convey **lightness and harmony** with the environment. The bamboo framework allows **adjustable bamboo panels** (2.6X2.6M) to be attached as floor or wall using interlocking mechanisms. Roll-up bamboo blinds allow the user to customise the spaces according to their wish. One experiences the banyan tree in its entirety, allowed by the varying levels of scaffolding. The spaces are closely interlinked with the rainforest via circulation through branches and ample ventilation in every space. Katharos represents **adventure and serenity** from the hustle of human life.



Honourable Mention 10 - SYMBIOTIC HIDEAWAY

K Shashavindu
India

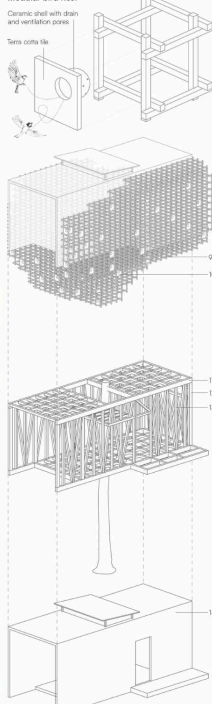
SYMBIOTIC HIDEAWAY



Location: Dandeli is in the western ghats of India, 80 km away from Hubli. Known for its biodiversity, wood production, and dense rain forest, Dandeli is a great place to stay and get away from a busy city life Hubli.

The design is focused on blending and coexisting with the thick rain forest while focusing on spatial efficiency and comfort. The structure faces north toward the beautiful landscapes of Dandeli, blocking harsh sunlight and strong western rainy winds. Safe entry ways make accessibility easier. The design has enough space for any future needs. A cubic lattice supporting the structure prevents the entire load from falling on a single area, thus preventing damage to the tree and increasing the lifespan. And the cubic lattice allows to integrate modular bird nest systems, which can also be modular for future adaptability, which can help specific endangered species like the Nigrit flycatcher and black-orange flycatcher. They are an important part of the ecosystem of western ghats who only live in small cavities. The cubic lattice is made up of waste pieces from the production of teak wood in nearby plantations, making it economical, sustainable, and easy to repair.

Modular bird nest



Annotations

- 1- Entry
- 2- Kitchen
- 3- Bathroom
- 4- Built-in bed ladder
- 5- Living area
- 6- Sliding folding window
- 7- Runked
- 8- Tree nest
- 9- 30mm thick Teak
- 10- 3cm cotha bird nest
- 11- 20x20x20mm oak wood
- 12- 80x80x20mm sal wood
- 13- 100x50x20mm set wood
- 14- Recycled ply with veneer

