

A Structure Among Trees: Study of the Treehouse Typology and its Precedents

“The works of the past always influence us, whether or not we care to admit it, or to structure an understanding of how that influence occurs. The past is not just that which we know, it is that which we use, in a variety of ways, in the making of new work.... The typology argument today asserts that despite the diversity of our culture there are still roots of this kind which allow us to speak of the idea of a library, a museum, a city hall or a house. The continuity of these ideas of type, such as they are, and the esteemed examples which have established their identity and assured their continued cultural resonance, constitute an established line of inquiry in which new work may be effectively grounded.” - John E. Hancock

The architecture of a treehouse is straightforward to define in imagination - the word “treehouse” conjures up immediate visuals of a structure perched up in branches or weaving through a forest - and yet its function, appearance, and application can manifest in multiple variations. From the very first platform-shelter to the luxury arboricultural resorts that followed, the treehouse is created simply by elevating the structure off the ground among one or more trees. This makes it perhaps the easiest typology to define in terms of its situation but one of the most obscure in form and program. The concept of a treehouse as a structure among trees has remained constant throughout the ages, thereby grounding its identity across multiple cultures and providing clear historical context for newer architecture.

Treehouses have featured in the architecture of societies across the globe, the earliest conceived as a practical means of escaping from hostile environments on the ground. The Korowai tribe in Papua continue to build their huts high off the ground in Banyan or Wanbom trees with the simplest of tools and methods.¹ In later eras, treehouses became objects of fantasy and playhouses for the wealthy, with members of the Medici family during the Renaissance attempting to outdo each other in building magnificent treehouses with “stepped walkways climbing [up to] a large platform and seats”². In 21st century, treehouses have also undergone a new surge in popularity with eco-friendly methods of recreating the childhood dream as adult retreats. The treehouse at Lake Rousseau continues this fascination in a proposal for the Triumph Architectural Treehouse competition.

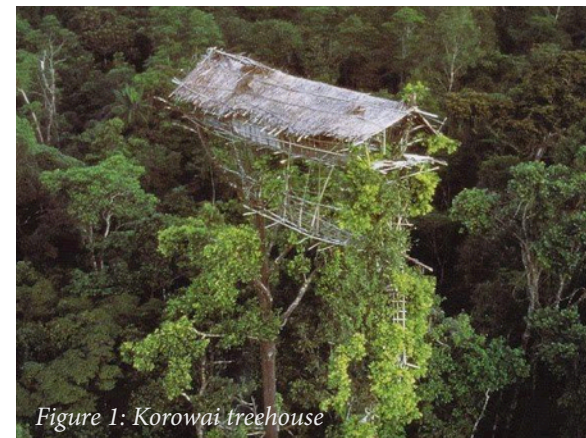


Figure 1: Korowai treehouse

¹ Annetta Black, “Korowai Tree Houses,” *Atlas Obscura*, accessed August 25, 2014, <http://www.atlasobscura.com/places/korowai-tree-houses>.

² Anthony Aikman, *Treehouses* (UK: Hale, 1988), 35.

The continuity of the treehouse typology may be examined through common features that exist in both established and contemporary projects. The following account of the precedents that influenced the design of the Lake Rousseau treehouse provides a starting point for a discussion of its coherence with the existing typology.

Treehouse parti

Perhaps the most minimal of the precedents, the Bird Apartment by Nendo is a playful take on those ubiquitous wooden contraptions scattered in parks and backyards. Designed for the Ando Momofuku Centre as a method of promoting nature activities, the house is supported on three tree trunks and is split into two halves containing 78 birdhouses and one room large enough for a single person.³ The entrance for the human visitor is an oversized circular hole on one side of the building accessible via a wooden ladder. On the opposite exterior wall, dozens of the same facade are scaled down and arranged to cover the entire surface to serve as entrances for the avian residents. A dividing wall separates the two and is punctured by peepholes that provides the human visitors an intimate view of the local birds that populate the forest near Komoro City.⁴

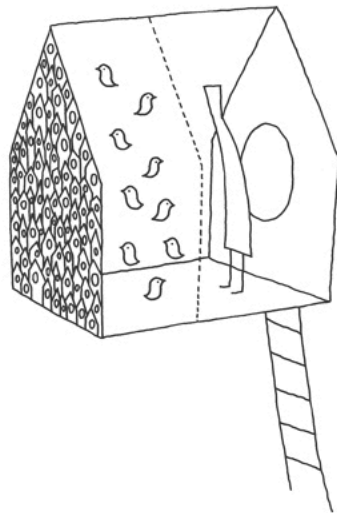


Figure 2: Birdhouse sketch



Figure 3: Entrance



Figure 4: Birdhouses

³ "bird-apartment," Nendo, accessed August 24, 2014, <http://www.nendo.jp/en/works/bird-apartment-2/>.

⁴ "bird-apartment".

This is an unusual design reversal, as typical birdhouses are often modeled as miniature single-detached homes or even designer houses⁵, complete with scaled-down details and additions. This project, however, chooses to replicate the minimal pitched roof and round entrance of its namesake, giving the distinct impression of a plain birdhouse perched in the trees as opposed to a displaced suburban house. It is a literal application of the typology; essentially a treehouse *parti*. By combining the bird- and tree-house, the Bird Apartment emphasizes the desire behind treehouse construction for a connection between nature and humans.

Just as the Bird Apartment cleverly reflects the needs of the local wildlife with a multitude of birdhouses, the exterior cladding of the treehouse at Lake Rousseau aims to blend graphically into the diminishing tree line as the forest approaches the lake. The vertical cedar strapping on the exterior walls are arranged in a gradient that coincides with the density of the forest around it, which further informs the privacy of the spaces inside. These louvers obscure the built assembly and glazing, while allowing sunlight to stream into the interior during the day and permitting the treehouse to light up like a lantern at night. Residents may catch glimpses of the surrounding landscape between these wooden slats as though they were peeking around the trunks of the neighbouring trees.

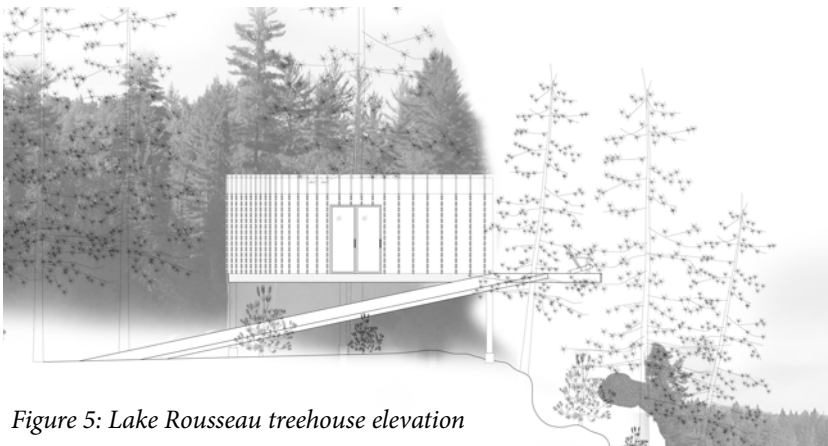


Figure 5: Lake Rousseau treehouse elevation



Figure 6: Lake Rousseau treehouse exterior

⁵ Nina Azzarello, “airbnb builds 50 birdhouses modeled after home listings,” *designboom*, accessed August 25, 2014, <http://www.designboom.com/art/airbnb-builds-50-birdhouses-modeled-after-home-listings-12-18-2013/>.

Retreat and connectedness with nature*Figure 7: Mirrorcube exterior**Figure 8: Mirrorcube interior**Figure 9: Mirrorcube rendered section*

In modern lexicon, the idea of a treehouse has become synonymous with a retreat, a structure designed to escape to the simple pleasures of life and nature. Luxury hotels such as the Tree Hotel in Harads, Sweden offer guests the opportunity to live up in the trees in rooms such as the 4x4x4 meter Mirrorcube, “a lightweight aluminium structure hung around a tree trunk...clad in mirrored glass”⁶. The structure is built around and secured to a single tree trunk by metal straps and is camouflaged in the forest by the mirrors’ reflections of the surrounding trees and sky. The interior is built completely from plywood and the residents have a view of the forest from every wall of the cube.⁷ Amenities within the room are quite sparse and ascetic as guests are encouraged to appreciate their proximity to nature as the true extravagance of the space.

The treehouse at Lake Rousseau employs the same utilitarian tactic in the interior. Since the competition brief specified a restriction of 20 square meters of floor area, such modesty and functionality was necessary in order to include all the required programmatic spaces of bedroom, bathroom, kitchen, and living area. The floors and walls are clad in plywood and most furniture is built in to keep free-standing articles to a minimum, thereby reducing clutter and preventing blockage of circulation. The cedar members on both the interior and exterior facades are

⁶ "Tree Hotel / Tham & Videgård Arkitekter," ArchDaily, accessed August 25, 2014, <http://www.archdaily.com/?p=103393>.

⁷ "Tree Hotel / Tham & Videgård Arkitekter".

notched to provide a level of functionality to the building, allowing the hanging of clothes, towels, kitchen ware, and other appliances typically used in the cottage country lifestyle.

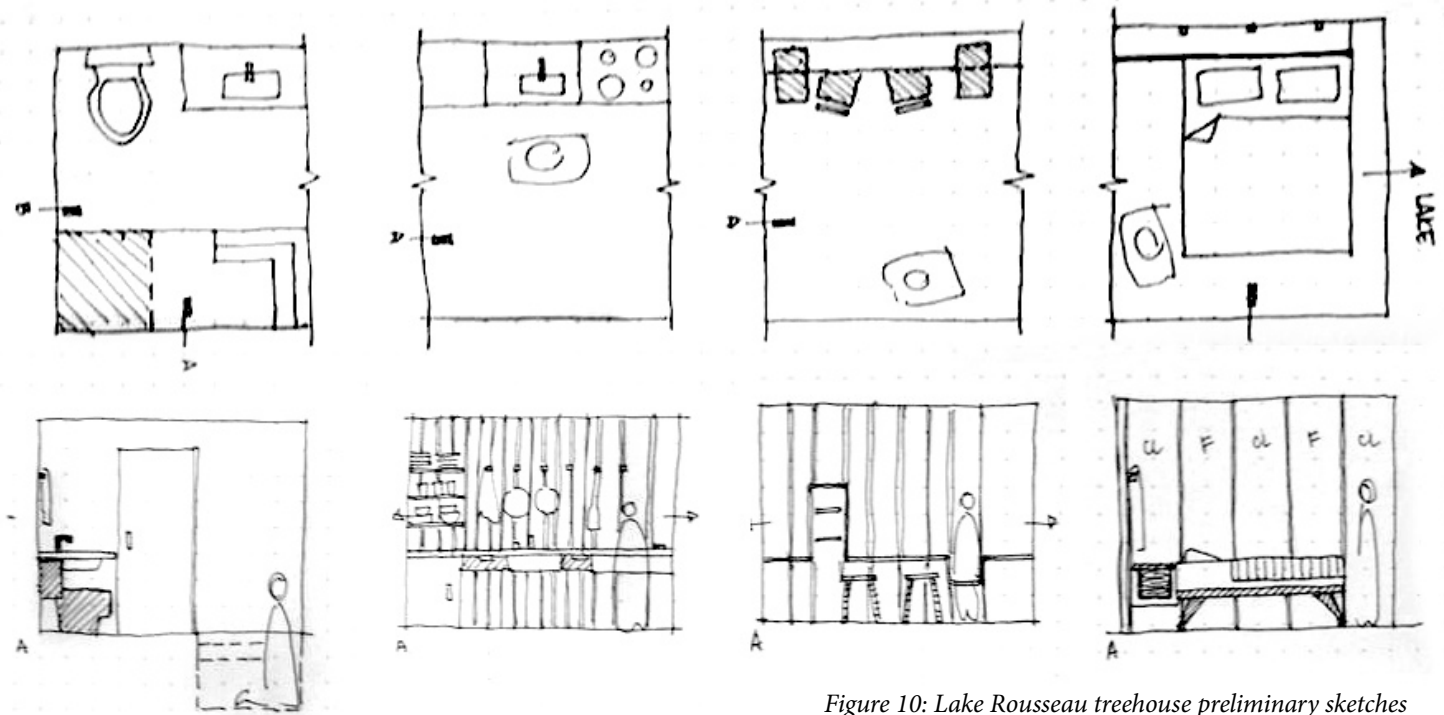


Figure 10: Lake Rousseau treehouse preliminary sketches

Suspended on stilts

Some projects, like the Tree Snake Houses, raise the structure to be among the branches on stilts due to site considerations and to remove the necessity of puncturing and damaging the trunk. This method is in accordance with modern construction practices that make an effort to respond to the existing natural environment and remove the burden on the tree.

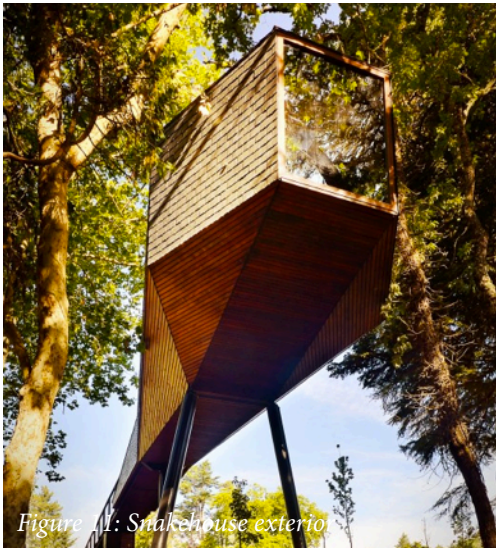


Figure 11: Snakehouse exterior



Figure 12: Snakehouse side elevation

The Tree Snake Houses are two long treehouses that glide between the trees like a duo of serpents in their “natural habitat...suddenly [appearing] in the visual field of the observer”⁸. Designed by Luís Rebelo de Andrade and Tiago Rebelo de Andrade in cooperation with Modular System, the structure thrusts off the edge of the hill and floats on slender stilts.⁹ Visitors are invited to walk the length of a straight boardwalk that merges into the shelter itself, culminating at its tip in an elegant bedroom with a large square window that faces out into the forest. The narrow layout of the structure has a clear linear circulation that sits in the middle of programmatic elements on either side.

Near the shoreline of Lake Rousseau, the trees thin out and the ground slopes down towards the water. Using stilts to elevate the structure 2.5 meters off the ground circumvents the obstacles presented by the uneven terrain and allows the treehouse to nestle tightly between the branches of the forest without causing unnecessary damage to the trunks. A wooden walkway abuts the length of the treehouse and provides access to the main entrance, and continues past the structure itself to form a lookout point right at the edge of the lake. Travelers that walk

⁸ "Tree Snake Houses / Luís Rebelo de Andrade + Tiago Rebelo de Andrade," ArchDaily, accessed August 25, 2014. <http://www.archdaily.com/?p=432254>.

⁹ "Tree Snake Houses / Luís Rebelo de Andrade + Tiago Rebelo de Andrade".

along the elevated path feel as though they are weaving among the trees towards the lake, with the treehouse acting as a resting place at the midway point of the circulation.

Inside, the layout of the Rousseau treehouse is structured like a corridor with built-in program allocated primarily to one length of the narrow floor plan. Confining amenities to one side of the structure creates a simple linear circulation capped by the bedroom and bathroom on either end. Privacy, as mentioned earlier, is arranged as a gradient in correspondence with the exterior cladding pattern, with the highest amount of privacy occurring at the bath where the trees are denser. At the waterside, the bedroom has the greatest transparency with a fully glazed wall facing out towards the lake.

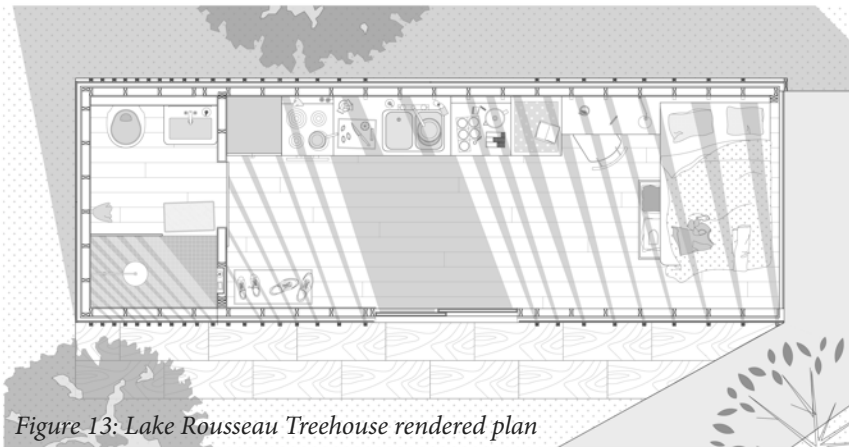


Figure 13: Lake Rousseau Treehouse rendered plan

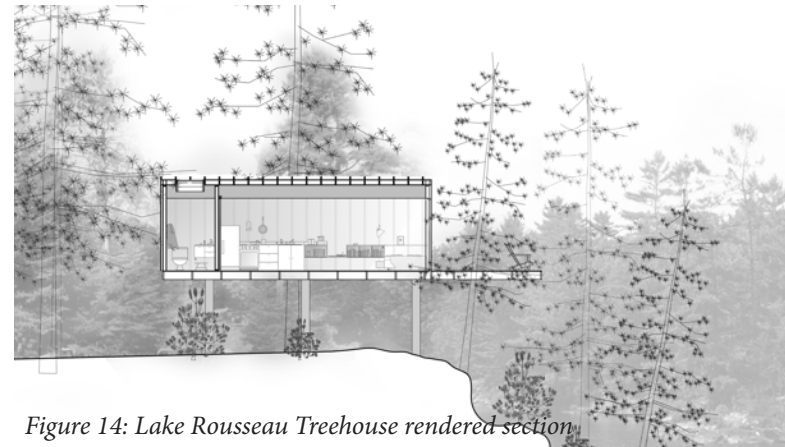


Figure 14: Lake Rousseau Treehouse rendered section

Typology

While treehouses may wane and grow in popularity, the idea of living up in the trees continues to pervade the collective consciousness. These precedents inspire an examination of the modern typology of the treehouse as they differ from each other in form, adornment, and method of elevation. The most obvious mutual characteristic is as it has been throughout history: the structure is raised in and among trees. However, the historical and modern precedents indicate a purpose that is separate from the architectural elements of program, function, and form; an idiosyncratic treehouse typology that responds to man's desire to connect with nature in the most direct route possible, realizing that the treehouse's own identity - and often, structure - is maintained only through its connection to the environment it seeks to admire.

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