LIVING IN THE TREES: Precedents off the Ground

Triumph Architecture Tree House Competition

Andrew Cole 20379651

Living in the Trees: Precedents off the Ground

"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."

The Harvard Architectural Review. Volume 5. Precedent and Invention. Between History and Tradition: Notes Toward a Theory of Precedent. John E. Hancock.

A Treehouse has an aura of architectural fantasy around them. Although fixed in its site within the branches of the tree elevated off the ground, the tree house takes on many mutations as both a place leisure, function, imagination, and ingenuity of human engineering. The team at Triumph Architecture asked designers and engineers to imagine a contemporary tree house retreat for the urban couple as an opportunity to extend the boundaries of what can be considered a tree house in this architectural typology. Through looking at historical and contemporary precedents during the design of the Lake Rosseau Treehouse, informed design decisions were made regarding the contextual and aesthetic moves throughout the project.

History of a Tree house

The treehouse has been a part of human history as both a place of function and a place of leisure. The Korowai Tribe, located in the southwestern parts of New Guinea, are renown for their talents and living in the high trees of the rainforest (*Figure 1*)[1]. This vernacular design protects the tribe from floods, predators, and rival tribes while still providing a view of the forest that they respect and honour.[2] The tribes are the only ones in the region that live in tree

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[1] Steinmetz,George. *Korowai treehouse. 2012.*
[2] British Broadcasting Corporation, 2011

houses, and push the boundary of their construction techniques to display their jungle prowess.[3] Tree houses are also romanticized about throughout history with stories such as 'The Swiss Family Robinson' and of 'Peter Pan' as way to capture the imagination of living in the trees. These youthful notions of the typology create another mutation of a treehouse that further widens the range of which the project brief could be considered.

Potential of the Tree House

When considering the tree house typology, research of the formal conceptions of a tree house was done to first ground ourselves to a starting position. Tree houses have an aura of fantasy around them, living off the ground high in something that intertwines with the majestic trees that can support them; castles in the trees, human sized birds nests, spheres suspended between branches, pods grown off the tree like branches. (*Figure 2)[4]* As the competition brief stated, *"An Original Contemporary Treehouse for use by a Professional City Couple as a retreat lodging and relaxation space to be used by the couple who have very hectic professional lives in a very urban environment."* To help focus our energy, we narrowed our study to how high-end tree house living could be imagined. We turned to some preexisting tree house hotels such as the Mirror Cube by Tham & Videgård Arkitekter and The Cabin by Cyrén & Cyrén.

The Mirror Cube by Tham & Videgård Arkitekter is a treehouse found in a collection of tree rooms called the Tree Hotel. This hotel is located in Harads of Sweden.The Mirror Cube is an example of compact program and leisure as a reflective cube appears to hover in the tree line. A game of existence and transparency of the treehouse is at play while the user has the bare essentials for a calming retreat inside the tree hotel. The Cube, clad in a reflective glass material, inherits its elevational treatment from the surrounding woods, making it somewhat disappear into the branches as only the surrounding trees are seen on its side. The Cabin by Cyrén & Cyrén, another treehouse located within the Tree hotel collection, restricts its views outwards to a set focal destination. The end elevation to its rectangular form provides a large window where all its program fades

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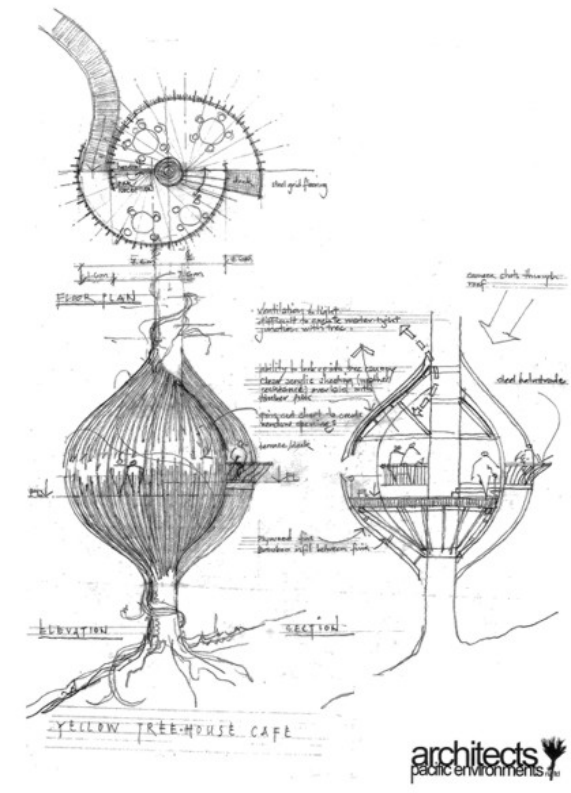
[3] British Broadcasting Corporation, 2011
[4] Pacific Environments Architects, Yellow Treehouse Restaurant

towards. The linear progression of program towards a set focal point, and the play of transparency were two main concepts driving the formal layout of the tree house set in Lake Rosseau.

(Figure 3: Mirror Cube, Tham & Videgård Arkitekter)

(Figure 4: The Cabin,Cyrén & Cyrén)

The Project

      The project brief requires the Tree house design should consider; the welfare of the tree, aesthetics and material, the comfort, convenience, retreat, relaxation and escape, accessibility and circulation, and the safety and security of the house.

The Treehouse design must be elevated at least 2.5 meters from the ground and should include the following :
Self-contained Treehouse module for the City Professional Couple
Sleeping Bed, Couch, storage, bathroom with shower or bath, sink and toilet.
Small Library / Reading area with great views into nature
Mostly Naturally light by daylight, moonlight and temperature / sky viewing control possibility e.g using insulation, windows, skylights etc..

External Observation area - Balcony, Terrace or viewing platform enjoying the wide life and stars at night.
 Good Access and Exit to the Treehouse
Total Internal Space: 20 Square
Site: Open to participants.

The overriding parti of the Lake Rosseau Treehouse is the idea of gradient section through the forest. The programmatic arrangement alines with the parti, as we stack it horizontally along our rectangular form. *(Figure 5, Eveline Lam Sketch)*[5] From opaque to transparent, the washroom caps the one end and the open concept leisure area containing the bed captures the other end. By placing the bedroom on the north end of the tree house, we place emphasis on enjoying the views across the lake and sky on all times of the day opening up onto a patio. The entrance to the house opens into the middle at the kitchen, to provide a neutral entry point for the user to step either to the more opaque or transparent end of the dwelling.
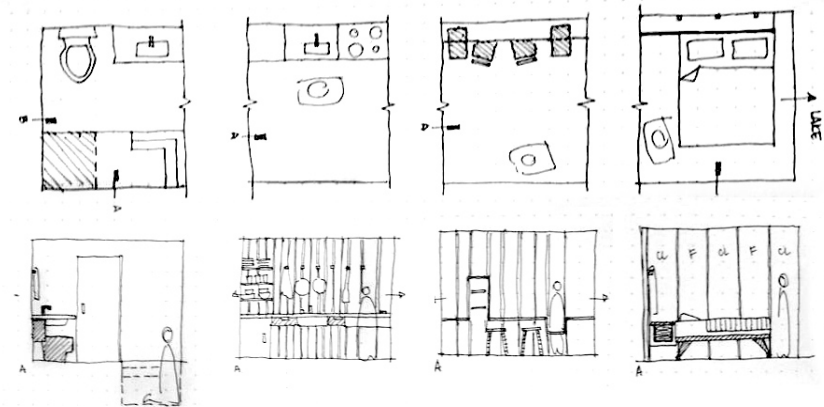
The approach to the treehouse is a long boardwalk, taking off upwards from the peninsula on axis to the Windemere hotel before joining the house and lookout. The two focal points in the project create two juxtaposing points of interest. The visitor can stare at the activity at the hotel from the seclusion of the treehouse, or gaze across the emptiness of the lake while in turn being the grafted into the shoreline.

The strategy to the elevational treatment comes from inspiration done by WSD Architects in the Writers shed. The small writers shed in London is built with a back-lit cedar facade, shingle cladding, log store and wood burning stove, as they were all intended to play a part in creating a world.[6] *(Figure 6, Writers Shed WSD Architects)* The use of gradient transparency to create a world of fantasy in leisure while maintaining a

[5] Lam, Eveline. Sketch 2014
[6] "Writer's Shed / WSD Architecture" 04 Mar 2014. ArchDaily. Accessed 25 Aug 2014. <http://www.archdaily.com/?p=482026>

contemporary feeling treehouse was a key ambition in the treehouse project. The underlying success of a tree house is in its ability to pay respect to its surroundings. In efforts to add to the functionality of the side treatment, a notch system was proposed to be implemented to act as functional hooks for hanging items such as coats, towels, and swim trunks.

Logistic and Pragmatic Issues

When provided with the project brief, one key issue missing from the project was the discussion of site. Site became an option to either be left ambiguous or heavily influential in the design of the tree house. With the wide variety of tree house mutations, the argument that site was key to the overall layout of elements and program within the project became very strong. The selection of Lake Rosseau, more specifically the south peninsula, was a decision made to ground the parti of gradient transparency. The site contains the thinning of the forest as the tree house overlooks the view of the lake. This pattern overlays into many aspects of the final project. The orientation of the project was heavily influenced by the shape of the peninsula, dictating the approach to view the Windemere hotel.

The site provided a resonating theme of gradient in the thinning tree line against the water, however it did not aid us in imagining a structural system. To help resolve this issue, the Tree Snake House by the architects Luís Rebelo De Andrade And Tiago Rebelo De Andrade was looked at to inspire how stand within the trees. The long approach extends the edge of the level change as it brings the visitor straight into the heart of the unit, making that axis the strong point of the building, and removing emphasis on the idea of being attached to a tree. The building also lended itself for inspiring how a practical, climate aware and context aware unit could be installed in the muskoka region. Tree Snake House used native raw material, slate and wood used in the finishing also promote the integration at the same time it confers invisibility to the houses, not allowing these to take the chief role which belongs to the centennial Park itself.[7]
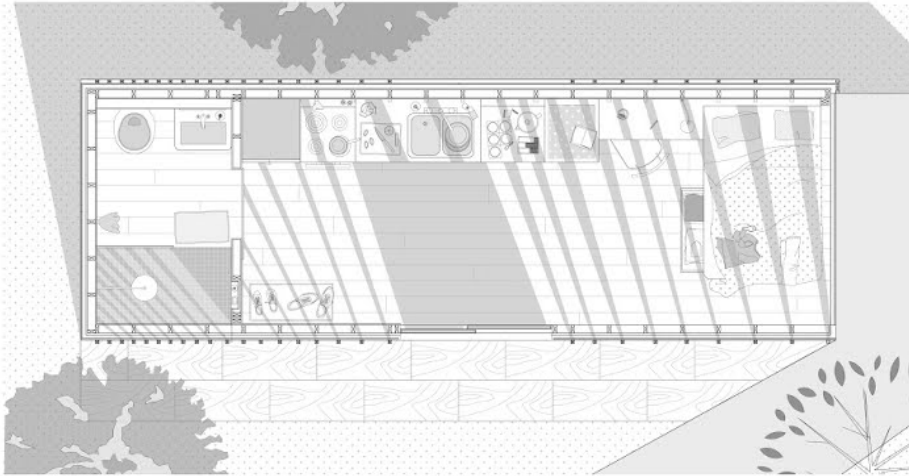
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[7] "Tree Snake Houses / Luís Rebelo de Andrade + Tiago Rebelo de Andrade" 26 Sep 2013. ArchDaily. Accessed 25 Aug 2014. <http://www.archdaily.com/?p=432254>

(Figure 7. Luís Rebelo de Andrade + Tiago Rebelo de Andrade)

A Review

Looking at the past provides the ability to ground and build upon the solutions of the past. For the treehouse, the most important realisation through the precedent project is the common role of responding to its surroundings. Through the appreciation of site, and the respect of the trees that surround living up in the air, a successful project could be built. From aesthetic to structural solutions, we look to the past to help improve the shape of the future tree house design.

(Figure 8 above, Lake Rosseau Plan) (Figure 9 below, Lake Rosseau Render)

Through the gradient treatment of program and louvers, the tree house aims to take from its surroundings and admire it in return.

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