



CHAPTER 2: THEORETICAL INVESTIGATION

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1. INTRODUCTION:

The theoretical investigation consists of finding a theoretical framework for the design of an appropriate contemporary community architecture in an urban, tropical and touristic context. In other words, theories are necessary to give guidelines for a meaningful place that empowers its users and makes them comfortable.

Therefore, the investigated theories address Tropicalism, Place-Making, and Community Empowerment.

2. TROPICALISM - TZONIS, A. LEFAIVRE, L. STAGNO, B. 2001

Because the site is situated in Madagascar, in between the Equator and the Tropic of Capricorn, Tropicalism and the different climatic concerns and spatial designs are very relevant in this project. Furthermore, besides the geographical concern of climate and colonial backgrounds, the challenge here is to find a synthesis between globalization and local (local in terms of the direct context of Hell-Ville that encompasses national therefore regional issues), an architecture that translates it belonging to both the world of consumerism, technological advance, a growing population; and a place experiencing poverty, bad management systems from post-colonial heritage and exploitative commercial tourism.

According to Tzonis et al. (2001) Tropicalism emphasizes the relationships between humans and places. The place is made by its people and vice-versa. National identity is closely related to tropicalism, characterized by its citizens and their needs that make the built environment unique to the place. Architecture attempts to resolve real issues that are unique to a place and its citizens.

Therefore, the guidelines extracted from Tropicalism, relevant to the design of an empowerment centre are the following:

- the nature and built structures are to be treated similarly in terms of space definition since activities in the tropics take place both inside and outside.

- the space defining elements would then consist of (see Fig. 72):

- the canopies formed by the trees or a similar roof structure
- the floors and horizontal planes which in turn enhance peripheral vision (see Fig. 76)
- the most important architectural element to be used throughout the project is the shadow, hierarchy of spaces is to be determined by shadow levels, in other words dark, semi-dark and light (see Fig. 73 & 74)

FIG. 72 : INTERPRETATIVE SKETCH DEMONSTRATING THE HORIZONTAL PLANES AS SPACE DEFINING ELEMENTS (AUTHOR, 2006).

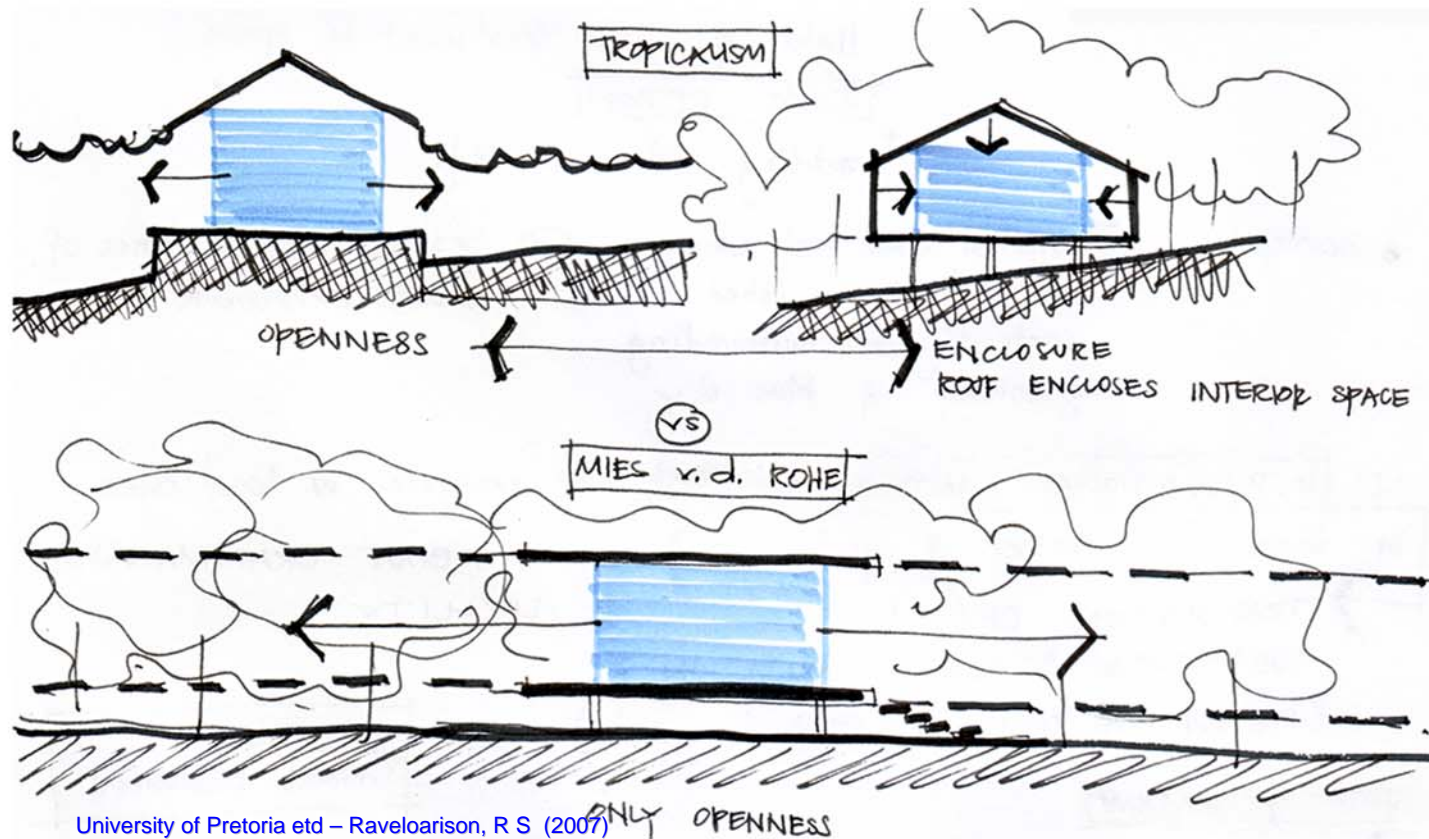




FIG. 73: INTERPRETATIVE SKETCH DEMONSTRATING BRUNO STAGNO'S (FROM TZONIS, A. LEFAIVRE, L. STAGNO, B. 2001) EXPLORATION ON ROOF PLANES TO ACHIEVE SPATIAL HIERARCHIES THROUGH SHADOW PLAY (AUTHOR, 2006).

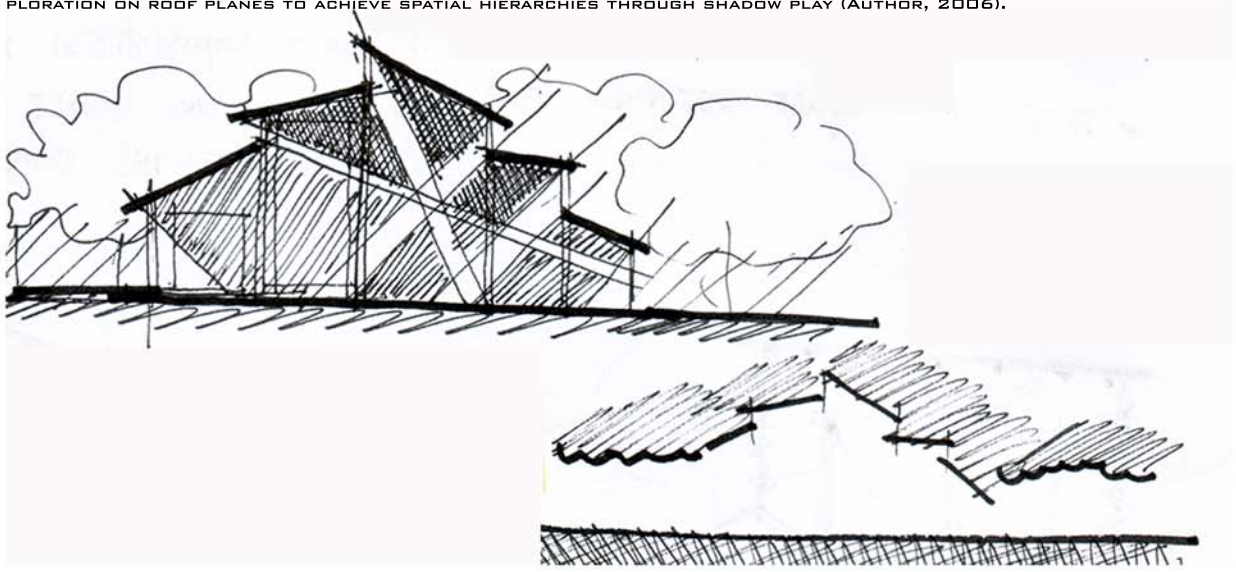
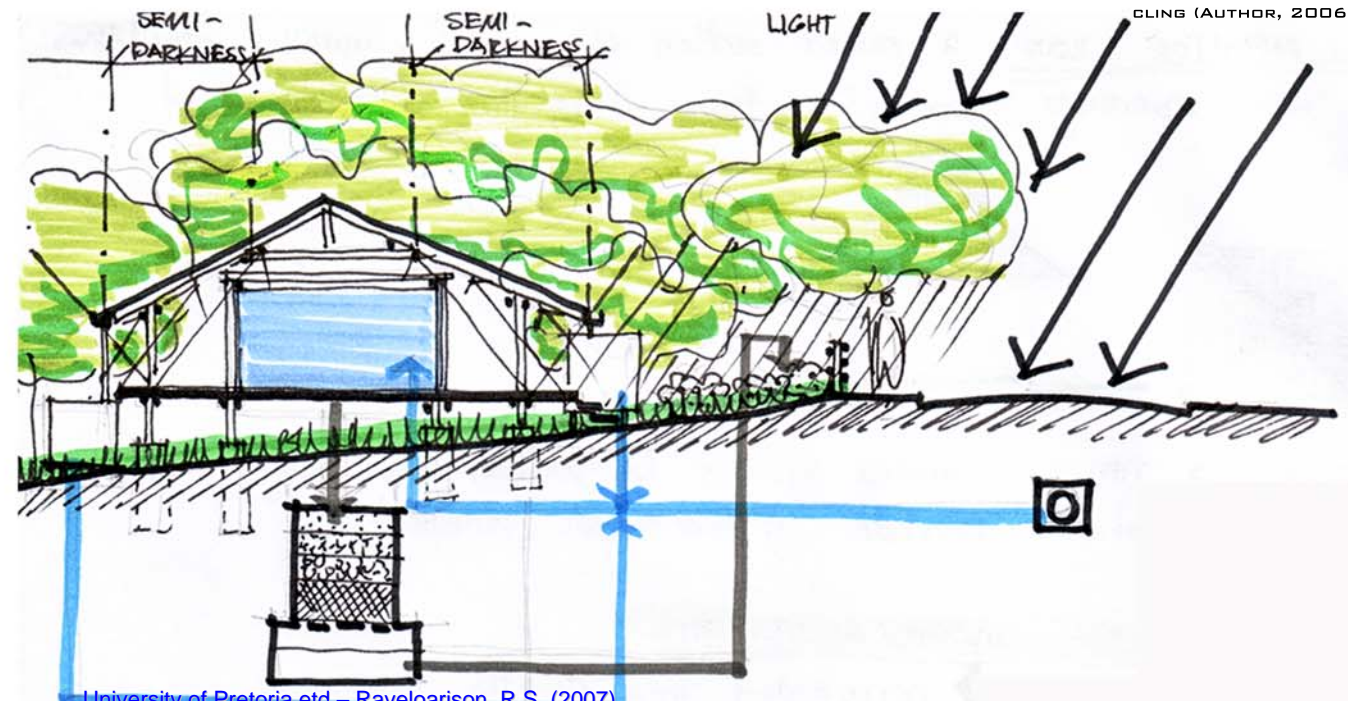


FIG. 74: INTERPRETATIVE SKETCH EXPLORING THE SHADOW LEVELS IN RELATION WITH INSIDE AND OUTSIDE FUNCTIONS, WHILE SIMULTANEOUSLY APPLYING SUSTAINABILITY PRINCIPLES SUCH AS WATER RECYCLING (AUTHOR, 2006).



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3. PLACE-MAKING THEORY:

a. TUAN, Y.F. 2003.

According to Tuan, a sense of place is determined by different factors:

- sense of selfhood, whereby the individual's sense of selfhood is determined by his or her past and background, which in turn influences the present and future life.
- past actions and experiences
- time and memory, together with the objects that belong to those memories

One of the most important factors that enables and characterizes the memory of a place is the place's relation with the time spent to know it. However, the places that are remembered the most are the ones with a very high intensity of experiences, no matter how long or short they are.

In order to translate the notion of place-making in the design, Tuan's point of view is interpreted so that spaces need to be carefully moulded and modelled in relation to their environments and users; therefore, elements such as openings in relation to views and threshold spaces; those in direct contact with the body in terms of scale, rendered and textured materials, handrails and door knobs, seats, sound or smell controlled rooms, etc, are given special attention in order to bring meaning and intensity to experiences lived in the designed spaces.

b. PALLASMAA, J. 2005.

According to Pallasmaa, architecture is "the domestication of limitless space and endless time" (2005: 17); therefore, architecture is a process that involves not only the visual but the tactile, hearing, smell, and imagination. As a result, the building's inhabitants and users belong to the spaces they occupy and are not merely spectators. Hence, architecture becomes "a response to human existential questions and is grounded in shared existential reality" (2005: 32).

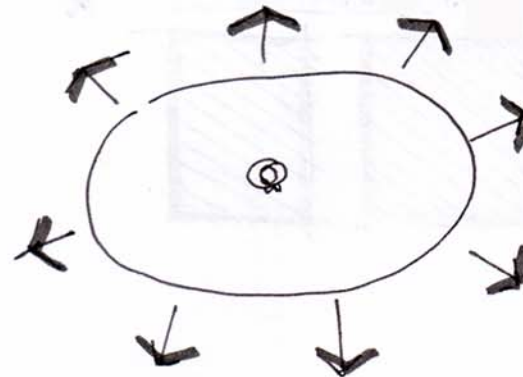
The elements translating an architecture of the

senses creating a sense of belonging consist of horizontality, verticality, materiality, gravity, and height, since they enhance experiences addressing the body.

In terms of materiality, the local and natural materials demonstrate age and history – their origins and their use throughout time. This factor of age and history expresses a process of wearing and timelessness. Furthermore, a multi-sensory architecture and experience is judged by the body; the qualities of the spaces, matter and scale are equally measured by the eye, the ear, the nose, the skin, the tongue, the skeleton and the muscle.

To implement and extend on Pallasmaa's sensory concept for architecture, in order to create meaningful spaces, the following elements of tactility need to be given careful attention:

- . floors
- . walls, specifically the tectonics and proportions
- . openings, used as frames to underline views of nature and the horizon
- . seats and handrails the users touch and feel
- . stairs and ramps



PERIPHERAL VISION

(VS) FOCUS VISION

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FIG. 75: INTERPRETATIVE SKETCH EXPLORING THE USE OF PLANTING AND TREES AS PLACE-MAKING DEVICES, NOT ONLY TO BETTER THE CLIMATIC CONDITIONS BUT ALSO TO ENCLOSE AND CONTAIN A DWELLING (AUTHOR, 2006).

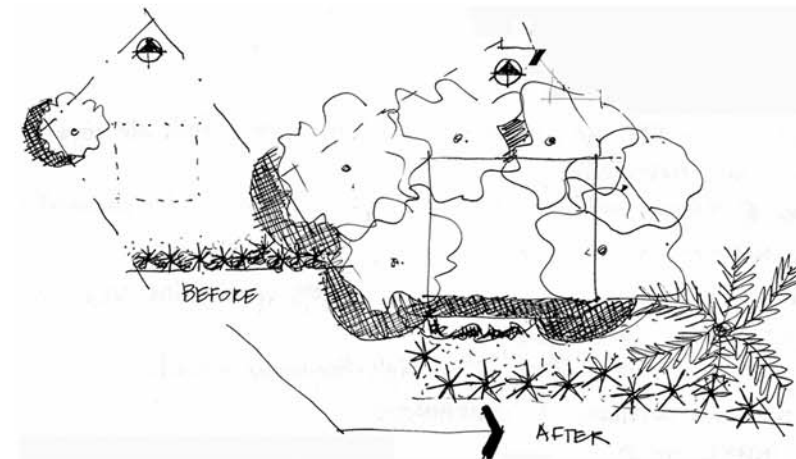
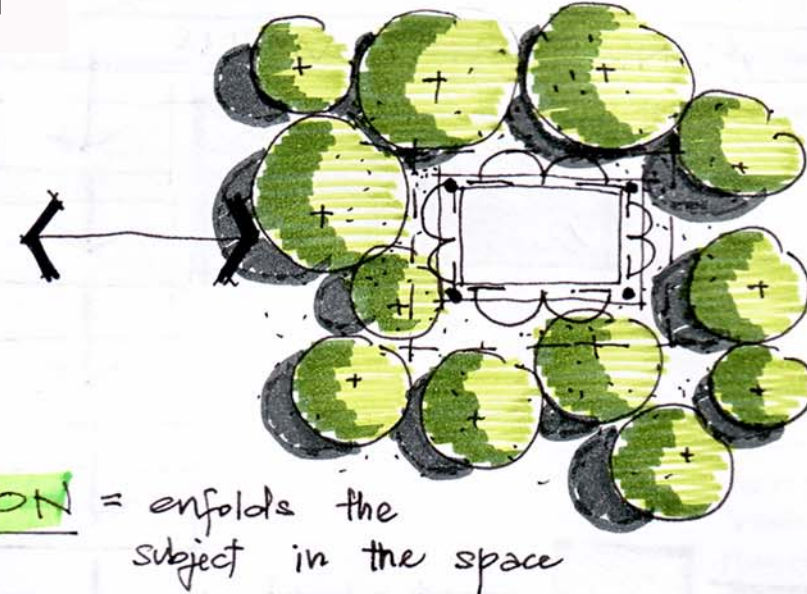


FIG. 76: INTERPRETATIVE SKETCH EXPLORING JUHANI PALLASMAA'S PERIPHERAL VISION (AUTHOR, 2006).





c. HESHONG, L. 1979.

Lisa Heschong explores the interdependence between spatial hierarchies and sensations (see Fig. 77). For instance, an outside area could be protected by a tree canopy surrounded by the sound of the breeze blowing into the leaves creating the perception of a cool and airy space; whereas on the terrace sheltered by a pergola or underneath a verandah, it would feel warmer because there is less air movement. However, by the circulation space, activities and breezes are drawn inside due to the channeling walls and columns. Inside, the perception changes to a more closed and cave-like one, where it is cooler away from the sun.

In the project, it is important to emphasize the catered activities with thermal 'feelings' to enhance the experiences of the places and to give the activities with the accommodating spaces more meaning to the user.

d. HARRIES, K. 2000.

In the context of appropriate and meaningful tropical architecture in Nosy Be, it is strongly advised that the mediator – in other words the architect – shall not just aesthetically represent the diverse culture of the Malagasy people but convey the true meaning of its people and environment together with past, present and future human dwelling. It is translated in "Harries' thoughts on the ethical significance of architecture", which "resurrect of what was said ... of being-dwelling as having a sense of place" (Oliver. 1998: 37).

To elaborate on Harries' work, Oliver mentions that "architecture need not be relegated to the status of something which has somehow outlived its own distinctive purpose, nor should it be reduced to mere functionality... One may legitimately ask whether, even in an advanced 'consumer society', the plug-in satisfaction of certain needs exhausts the concept of being human and of dwelling. Is there not a more fundamental need to participate in making our envi-

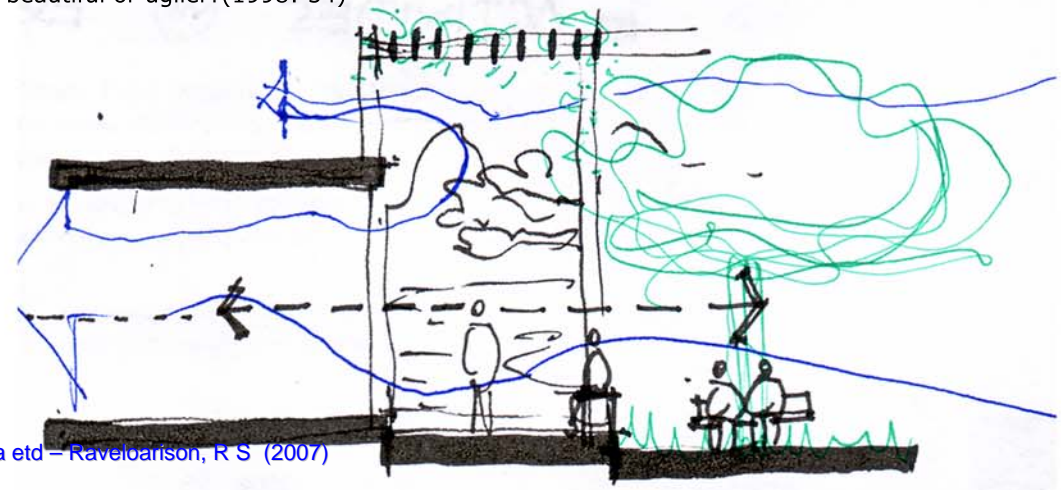
ronment into a home?" (Oliver. 1998: 54) . In other words, to create a sense of place, the architectural mediator must fulfil responsibilities beyond functionalism and aesthetics.

Harries says "buildings should live. Only such a living architecture allows for genuine dwelling" (Oliver. 1998: 54) . To make a building live, it needs to be integrated "into the lives of succeeding generations" (Oliver. 1998: 53), making it adaptable and comfortable for present and future occupants.

To summarize, Harries' "ethical function of architecture" is "helping to articulate and even to establish man's ethos or sense of place" (Oliver. 1998: 53).

In the same context of ethical architecture, one author worth mentioning is Bartel. Having read Bartel's essay *Art in Everyday Life: Aesthetics and Ethics in Everyday Life* (1999) , his questioning of ethics and aesthetics could also be used as a guiding principle, in considering the role of architecture and representation of values, as well as in the making of this communal facility. The questioning addresses issues individuality and conformity; permanence and tradition versus creativity, change, improvement and relevance of time; consumption and conservation; single and multiple use spaces; Plasticland of contradictory and untruthful visual relationships; and finally, is the place more beautiful or uglier?(1998: 54)

FIG. 77 : SKETCH INTERPRETING LISA HESHONG'S WORDS IN "THERMAL DELIGHT" IN ARCHITECTURE (AUTHOR, 2006).



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e. PLACE-MAKING - THEORETICAL CONCLUSION:

The guidelines to draw from Tuan, Pallasmaa, Heschong, and Harries, in the making of a meaningful community centre, rather than just a mere multipurpose facility, are the following:

. The creation of space is beyond the visual and the pleasure of the eyes. It addresses issues of comfort by accommodating for ventilation, lighting for easy study/workshop/office/etc activities, etc. It also entails catering for activities that are practiced by the users, not creating new ones, but facilitating spontaneity.

. Place-making consists primarily of experiences (Tuan. 2003). However to make those experiences memorable, like Pallasmaa and Heschong suggests, tactility and sensory are very important, translated in the scale, proportions, materiality, etc of the architecture. To Harries, true cultural values need to be demonstrated in a dwelling, in other words past and present activities as well as future aspirations are to be accommodated in and by the architecture.

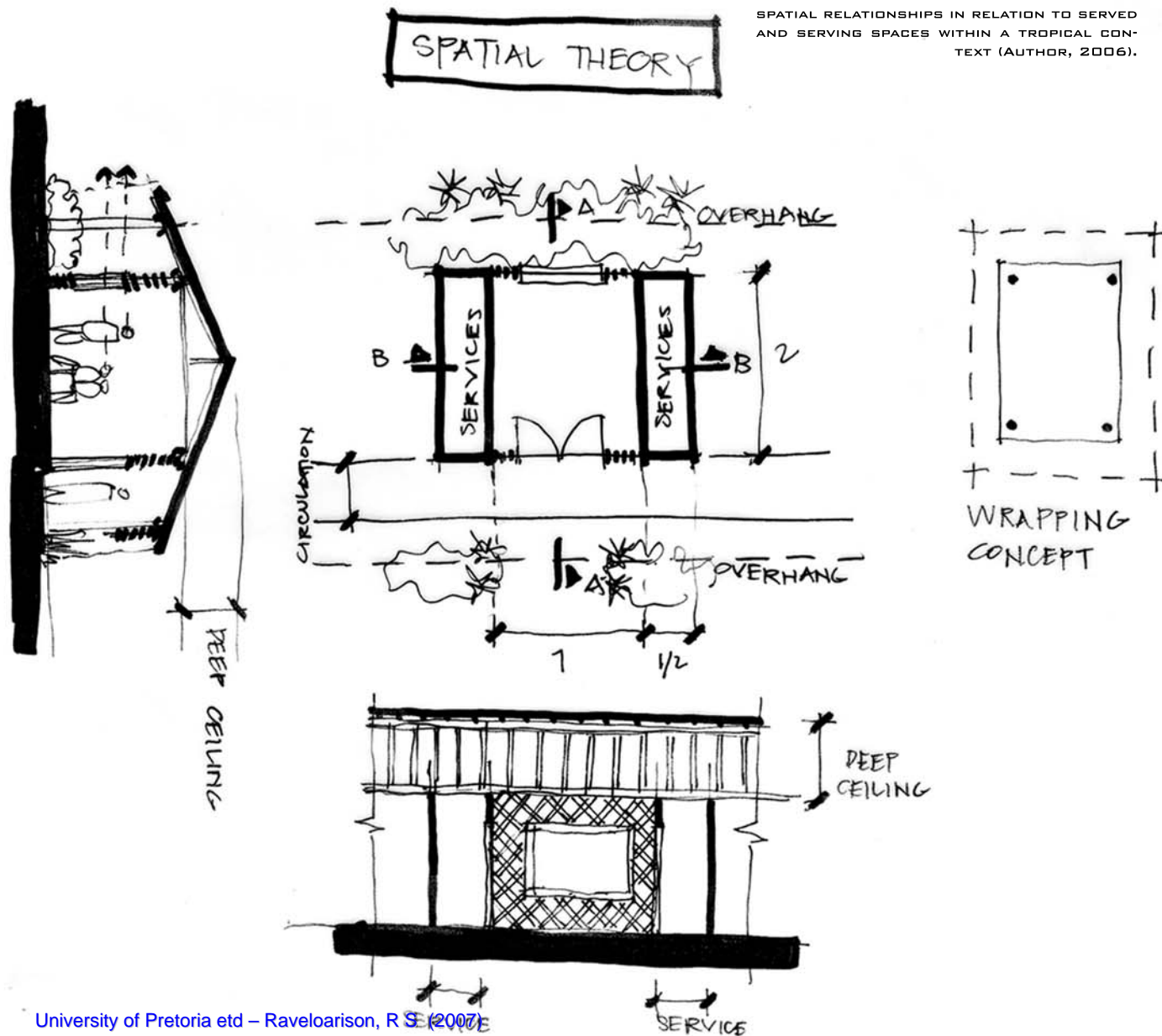


FIG. 78: SKETCH EXPLORING A FRAMEWORK ON SPATIAL RELATIONSHIPS IN RELATION TO SERVED AND SERVING SPACES WITHIN A TROPICAL CONTEXT (AUTHOR, 2006).



4. THEORETICAL INTERPRETATION:

a. The Wrapping Concept - Author's Own Theoretical Exploration (see Fig. 78):

This concept involves the wrapping of the main activity space with service spaces, in other words storage, wet or mechanical core spaces, on two opposite sides to allow cross ventilation to happen, with open circulation space to make the activity rooms easily accessible; and finally one side open with a deep overhang for lighting and views. In maximising cross-ventilation, the rooms must be shallow enough and not exceed ten metres.

In the hot and humid climatic context of Nosy Be, from the vernacular and colonial case studies, it has been demonstrated that deep ceilings and suspended floors help control the humidity and create comfortable thermal conditions.

b. Social geometry (see Fig. 79):

In *Analyzing Architecture*, Simon Unwin demonstrates that a space is not only defined by built or natural elements, but also by the people organised around a fire, or congregating in a circle. This theory is called 'social geometry'.

Social geometry could be applied in the project regarding its spatial flexibility, and the similarity between inside and outside spaces. In other words, the people and their activities define a space, wherever those activities may occur. Therefore, the project as well as the urban layout need to be flexible enough in order to accommodate various activities and social geometries.

In addition to this, these flexible spaces shall provide objects to increase comfort, in other words human objects, seating areas, shelters for rain and sun, etc.

c. Stereotomics:

According to the Spanish architect Alberto Campo Baeza, Stereotomics consists of, on one hand, providing a masonry base to a dwelling as a ground con-

ductor, as well as a frame for the outside views. On the other hand, the upper floor becomes a light frame component, as a sky connector, to underline the outside views.

Stereotomics allows for the proposed community centre to anchor into the ground. Therefore, its materiality gives the perception of strength and durability for the community members.

5. THEORETICAL INVESTIGATION CONCLUSION:

These above-mentioned theories form a theo-



retical framework in the design of an appropriate architecture for the community of Nosy Be, which is the following:

. Since Tropicalism consists of the relationships between humans and places, these bonds are to be enhanced through the integration of the built and natural environments, as well as shadow play, as foregrounds for human activities.

. A meaningful place depends on the qualities and diversity of activities it has to offer, which are based upon sensory experiences.

. In order for a space to comfortably accommodate its users and their activities, in a tropical context, the Wrapping Concept, together with Social Geometry and Stereotomics are explored to cater for structural and spatial constraints.

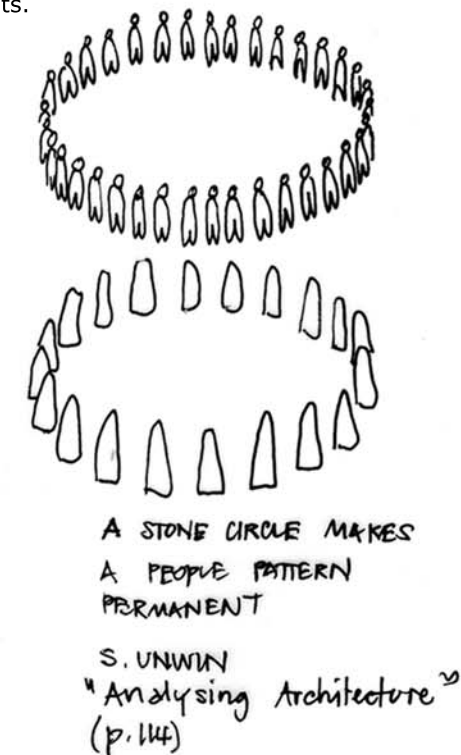


FIG. 79 : SKETCH INTERPRETING SIMON UNWIN'S "ANALYSING ARCHITECTURE" (AUTHOR, 2006).