

Memories and Performance

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ABSTRACT: This study intends to explore one aspect of contemporary architecture, that is, the tension between the universal and the particular. It is the tension between the emphasis on modernist abstractionism and technology and the concerns about nature, history, and human experiences, both individual and collective. Basically, it is the notions of identity and place. In this line of thought, the discussions on place usually are anchored on the formal and spatial level, which carries symbolic significance. However, architecture has a greater impact on human life in subtle ways, that is, through the ways in which a design operates in relationship to the social and physical environment. It is what I would call the performative aspect of architecture. How can we establish a mode of reading of the notion of place by focusing on the performative aspect of architecture? This paper examines examples of works related to the notion of place, both design work and architectural texts from the heroic period of Modernism to the contemporary period, including those of Le Corbusier, Alvar Aalto, Maxwell Fry and Jane Drew, Paul Rudolph, to those of critical regionalists. This juxtaposition between textual and formal analysis aims to arrive at a critical understanding of how the cases perform and, in turn, engage the place. Overall, this study hopes to contribute to the intersection between history and theory of architecture and design, as well as to the notion of place and identity in architecture.

KEYWORDS: identity, building performance

INTRODUCTION

This study begins with rumination on the relationship between history and theory of architecture and design practice. Architectural theory used to be seen as providing answers to the design process, for example through the use of historical precedence, which gave formal solutions to design problems. For a long time, history is thought to have provided stable, synchronic answers to design. The search for this way has informed architecture since the Renaissance. Among architectural historians in the twentieth century, Manfredo Tafuri criticizes this view and labels that as “operative history,” in which he detected an attitude to project the past into the future as a way to legitimize design. Instead, he has shown us that architectural works are deeply embedded in the socio-political milieu. In the context of modern architecture, as it incorporated the logic of production and organization, architecture, in turn, has become a means to plan the future. In this line of thought, architecture eventually lost its ability to be critical of its socio-cultural context, as architecture is simply absorbed into the system. As a part of the system, architecture also lost its ability to be meaningful, as meanings eventually resided in the larger system itself. This criticism eventually leads to the belief that architecture should take a critical distance from the socio-cultural milieu and turn to its own internal logic. Often labeled as critical architecture, this position aims to exhaust the formal logic of architecture in its investigations as a form of resistance. Hence, it argues for autonomous architecture. However, in his incisive criticism of modern architecture, Tafuri does not only argue for critical architecture. Indeed, he also suggests the need for architecture to engage with reality, although without the illusion of the totality of architecture, as reflected in his discussions of cities in Germany and the history of Italian architecture.

Reflecting on the contemporary world that is characterized by globalization, it seems that modern architecture has acted as one of its agents. Designs based on elementarism and affinities with contemporary techniques and materials have become prevalent in every part of the world. This phenomenon poses the question of the place and role of architecture in the junctures between the local, particular and the global, universal. Elaborating the notion of engagement with the reality seems to provide a way to investigate this issue. In this line of thought, the issue is the way a building relates to its program and its surrounding, both in socio-cultural and natural, physical terms. In other words, the key theme for this research is

how a building performs with regards to the internalities and externalities. How can we establish a mode of reading of the notion of place by focusing on the performative aspect of architecture? The framework for this research includes reviews of architectural texts that explore the relationship between architecture and specific environment, as well as the notion of place. It also incorporates examinations of some examples of projects that engage the notion of place. The findings inform a discussion of a design research that problematizes the notion of a contemporary building type in a particular location.

1.0 OVERVIEW

1.1. Buildings and environment

Reyner Banham, in his book *Architecture of Well-tempered Environment*, argues that the trajectory of modern architecture in the twentieth century still relied on generative principles based on formal principles; an argument that he put forward in his previous work, *Theory and Design of the First Machine Age*. Basically, he laments the missed opportunity of continuing the program of the Futurists of exploring contemporary technology as the prime generator of architecture. Along this line, Banham argues that technology in environmental system still does not inform architecture. He points to the fact that contemporary buildings are in fact a shell whose life depends on these systems. Indeed, Banham argues that the act of designing architecture might be considered as an act of controlling the environment.

In fact, looking at writings on architecture in the mid of the twentieth century, Banham's concern was also shared by other writers. If Banham was more interested in the relationship between technology and the development of modern architecture, Sibyl Moholy-Nagy puts forward a history of architecture based on the performance of vernacular buildings. Moholy-Nagy argues that the history of architecture is basically a history of the relationship between humans and the environment (Moholy-Nagy, 1954 [2004]). These efforts to cultivate living environments lead to varieties of vernacular architecture. In essence, she argues that vernacular architecture is a manifestation of successful relationship between culture and architecture. Moholy-Nagy develops her thesis further in a book, *Native Genius in Anonymous Architecture*, in which she argues that buildings are a form of expression of site and climate, form and function, and materials and skills. She elaborates that buildings from a particular place reflect local building materials and skills, specific conditions of the locale, as well as specific functions. The underlying argument in this book was her efforts to search for the generative principles of architecture in the condition of the site and the efforts of humans to manage the living environment.

In this line of thought, Victor and Aladar Olgyay explore the relationship between local climate, the human body and the design of the built-environment, both at the scale of a building and of a settlement (Olgyay, 1963). Based on Jean Dolfus's argument that building styles are defined more by site condition rather than cultural organization, the Olgyays develop a methodology of design based on the analysis of the climatic conditions. Based on the data on site, the sun orientation, shading, and air movement, they suggested a series of formal and spatial responses in designing buildings and the environment, along with the considerations of the materials. The book even comes with a matrix of design suggestions. Clearly, in their argument, the Olgyays consider the notion of region in terms of geographic delineations.

A rather similar way of thinking appears in the work of Maxwell Fry and Jane Drew. After their work in Asia and Africa, Fry and Drew produced a theoretical work that highlighted their design methods (Drew; Fry, 1964). Their argument also tries to link up architectural design with the environmental conditions. They postulate that architecture emerges on the basis of humans need, the location, in particular the climatic conditions, and the materials and techniques of construction. Climatic conditions, in their argument, affect human bodies which, in turn, necessitates proper responses in the design of the built-environment. In this line of thought, they propose a series of formal strategies, which include the design of the roofs, walls and openings, ventilation, ground treatment, and spatial arrangement of the rooms. In a way, Fry and Drew abstract the locale into a matrix of environmental conditions and possible formal responses.

1.2. Theories of Place

One of the major approaches in considering the notion of place in architecture is the notion of regionalism. In the introduction to his compendium on the issues of place and identity in architecture, Vincent Canizaro points out that the notion of regionalism is simply about the connection to a particular place (Canizaro, 2007). He traces this concern all the way back to Vitruvius, who went at length to discuss the relationship between the conditions of a place with the way people constructing building. Indeed, the very word region has its roots in Latin. However, Canizaro stresses the strong presence of intentionality in regional architecture, as the main factor that distinguishes it from vernacular architecture.

The concept of regionalism regains its currency since the 1980s through the emergence of the notion of critical regionalism. Originally coined by Liane Lefaivre and Alexander Tzonis, the notion of critical regional was then taken up by Kenneth Frampton. In one of their writings on that subject, Lefaivre and Tzonis emphasize regionalism as efforts to counter globalization, which brings universal standards and methods (Lefaivre; Tzonis, 2001). In the place of universalization, regionalism emphasizes features that are specific to region. The couple refers to Lewis Mumford talks in the 1930s and 1940s as the source of their theory, in which Mumford aimed at establishing a dialogue between local and global culture, instead of exaggerating the contradictions between the two poles. In their view, Mumford's aim was to humanize modernity by paying attentions to the local and the specific. At the same time, locality could also benefit from the interaction with the global. However, Lefaivre and Tzonis differentiate critical regionalism from other regionalism by borrowing the technique of defamiliarization from the Russian formalists. This technique aims at using local and specific features in a completely different way in order to heighten the awareness of such locality. In a way, Lefaivre and Tzonis think about regionalism through the working method of the modernists.

Kenneth Frampton took up the notion of critical regionalism in a series of writing that he produced since the 1980s. In his view, critical regionalism is a critical stance toward both the local conditions and the global influences (Frampton, 1983 [1986]). The keyword for critical regionalism in his view is inflection, in which global and universal architecture is inflected to reflect the local condition. In design terms, Frampton puts emphasis on the tectonic aspects of the buildings, that is, the construction techniques and materials. In fact, Frampton frames his argument on critical regionalism along the line of his approach to architecture, which place the primacy of the tectonic aspect as the generative principles of architecture, as exemplified in his book *Studies on Tectonic Culture*. It is through the careful attention to the tectonic aspect that architecture generates meanings. Following the thinking of Heidegger and Hannah Arendt, Frampton aims to relate architecture to the human existential search, in which the acts of making building serve as the way to manifest humanity. In this line of thought, explorations in tectonic aim to reveal the texture and properties of materials, along with possible techniques of construction that are conditioned by such materials. Thus, by linking the knowledge in tectonic with building practices from a specific location, Frampton attempts to reconcile his humanistic thought in architecture with the notion of place.

In relation to Frampton's thought, it is worth to review the notion of memory and architecture that is argued by Stanford Anderson. Anderson asserts that architecture is essentially an embodiment of knowledge of a society (Anderson, 1995, 1999). In the form of vernacular and traditional architecture, manmade structures serve as a device that carries knowledge, practices and traditions in formal, spatial, and tectonic manners. In a way, the built environment guarantees the transfer of knowledge from generation to generation. In many parts of the world, this knowledge is preserved without the presence of written archives. Anderson calls this mode of transfer and preservation of knowledge as societal memory. He then argues that modern world, which relies of writing and specialization of knowledge, produces a different form of architectural knowledge. In the modern world, this form of knowledge was codified and institutionalized within the discipline. Since the Renaissance, architecture emerged as one of the disciplines in the modern world, complete with educational institutions that guaranteed the transfer of knowledge through pedagogy and the professional institution that safeguarded building practices. He calls this form of knowledge as institutional

knowledge. Obviously, the notion of place in architecture relates to the form of knowledge as societal one.

1.3. Places and Buildings

Concern with the notion of place is also apparent in design practice in the twentieth century. Although this section is not intended to give a comprehensive picture of the way in which major architects have engaged this issue, nevertheless it aims to sketch out some of these strategies. In the early stage of his careers, Le Corbusier produced architecture based on pure geometric form, concrete frames, and standardized, industrial elements. Based on his *Maison Dom-ino* and *Maison Citrohan* models, this design led to some of his famous houses of the heroic period of modern architecture in the beginning of the twentieth century; aptly expressed through his five points of architecture. However, starting in the 1930s, Le Corbusier also explored a different avenue in his oeuvre. An early example of these directions is *Maison Errazuris*, a house for a client in Chile in 1930s. The house is located on the coastal area, with one side facing a mountain. The design of the house exemplified geometrical clarity that was apparent in his designs. The plan of the house demonstrates the openness of Corbusian plans, with regularity of the grid serves as the datum of the plan. The house has large openings on one side, while on the opposite façade, the elevation is characterized by Corbusian long, strip windows. However, instead of standing on pilotis as in his European house of that time, *Maison Errazuris* sits on the ground on top of a stone base. Further, instead of employing flat roof in accordance to the five points of architecture, Corbusier design the roof as sloped-roof in the form of V-shaped roof. The house indicates clues of Corbusier's engagement with local vernacular building through the use of walls, sloped roof, and the grounding of the building. It also shows the consideration of the use of local materials. However, the intentionality of the design seems to rest primarily on the regularization through the use of geometry. Further, the plan and the section suggest that the intention was to deal with the provisions of natural light and the circulation of air. Thus, the site is abstracted for the light, view, and air factors, while local references are regulated within the field of geometric grid. Similar themes can be detected in subsequent project of Le Corbusier. In this type of Corbusian architecture, started with *Maison Weekend*, the designs are based on the abstraction of rudimentary building techniques, either based on brick vaulting systems, such as the types of *Maison Jaoul*, or based on V-shaped roof, exemplified by houses such as a house type for a foreman. The later exemplifies the use of long, thin geometry for the plan, still with the regularity of spatial cells. The roof is split to allow for air to circulate and to bring on natural light to the house. However, in contrast to *Maison Errazuris*, in his work as an architectural consultant for the Ministry of National Education and Public Health in Rio de Janeiro, Corbusier return to the purity of a geometric prism for the building. The response to the environmental condition is the introduction of the second skin to act as sun-screen, the *brise-soleil*. In this design, the locale is reduced to a series of environmental factors, light and air.

The second generation of modern architects started to problematize the premise of a universal architecture, by engaging history and traditions, exemplified by the works of architects, such as Alvar Aalto, Kunio Maekawa, Berthold Lubetkin, and many others. An example of the engagement with the problem of place appears in the work of Aalto in Finland. Aalto absorbed influences of the International Style in his oeuvre. However, he also developed a distinctive architectural expression of his own that has its root in the nature and culture of Finland. Instead of articulating the white, geometric architecture of the International Style, Aalto employed materials derived from local building traditions. Furthermore, he expanded his repertoire by using multiple geometries. In one of his later work, Aalto designed a holiday house for himself in the island of Muratsaalo, which he called the experimental house. This house is based on the courtyard type, with spaces arranged on two sides of the courtyard. The building sits on a mooring that floats above the glacier, a response to the local environment. Furthermore, the house is constructed out of bricks. The experiential qualities of the house articulate the framing of the views toward the forests and the lake. Thus, in relating to the place, Aalto foreground the experiential qualities through the framing of the vista and the palette of materials, while the formal and spatial configurations are still based on abstraction.

The subsequent generations of architects of the Modern movement in architecture demonstrate varying degrees of engagement to the place. The early work of Paul Rudolph in

Florida, for example, demonstrates the intentionality of problematizing local influences, both natural and architectural. In his houses of this period, Rudolph developed formal repertoire that exemplified his attempts at problematizing the local and the global. In the Cocoon house, the design articulates a parti based on a simple geometric prism, which also reveals the notion of a primitive hut. It clearly owes its debt to Mies van der Rohe's Farnsworth house in Illinois, including the siting of the house on a low-rise platform. Raising the house above the ground, however, seems to work more than for the visual reasons. It reacts well with its site in the marshy land in Florida. It also allows for air to circulate underneath the house. Nevertheless, the highlight of the house is the use of louver that covers the entire vertical surfaces of the house, from floor to ceiling. This feature comes from the use of louver for windows in vernacular houses in Florida. It acts as a filter for air and light as they penetrate the house. In a way, it seems that Rudolph abstracted the local climatic conditions through elevating the house and the providing ventilation device. At the same time, he also attempted to create a link to a

specific formal element of local building traditions. In essence, Rudolph abstracted a common feature in Florida vernacular, that is, louver windows then turned that into the main formal feature of the building.

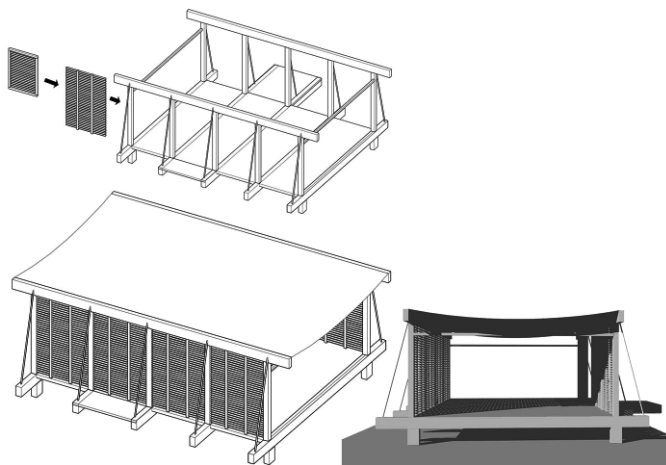


Figure 1: Diagrams of Paul Rudolph's *Cocoon House*. Source: (Author, 2012)

The spread of modern architecture outside Europe and America also prompted the search for the juncture between the local and the global aspects of architecture. One prominent architects from Asia, Geoffrey Bawa, exemplified the way he engaged the notion of place and identity. In the Ena de Silva house in Colombo, Sri Lanka (1960-62), Bawa's architecture exemplifies the efforts to articulate the notion of identity in architecture. The parti of the house is based on a courtyard house, a basic spatial organization of both local and colonial architecture in the island. Within this parti, Bawa produces a plan that is very fluid and open, using a series of thick walls as partitions of spaces and structural support. Other than these supporting partitions, the architect turns the walls into screens of wooden lattice that allows air to circulate and filters light. The walls are painted white to reflect the tropical sun and minimize heat. The roofs of the house are layers of sloped roof that allow hot air to escape the house. The house is essentially a large courtyard garden lined up with verandah. In fact, Bawa essentially puts forward a design based on the abstraction of local architecture into two basic components: the wall-enclosure and the roof-umbrella. The result is a design that relates the local context on formal, spatial, tectonic, performative level.

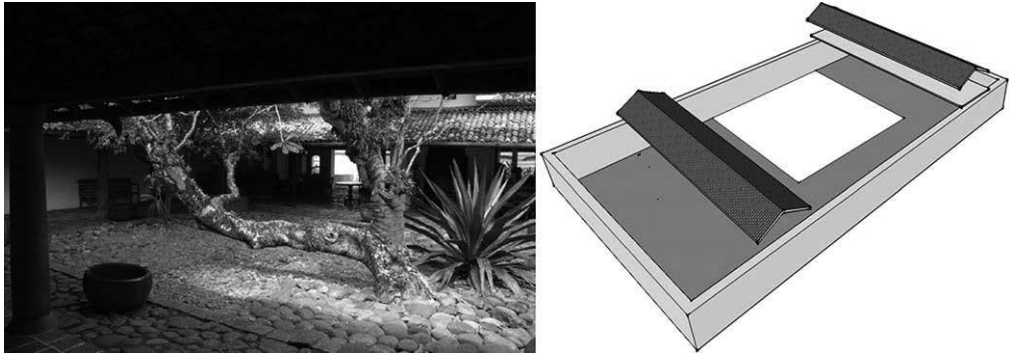


Figure 2: Ena de Silva house, the view of the courtyard and the wall-enclosure and the roof-umbrella. Source: (Author, 2009)

The engagement with the issue of local and global not only happened in practice, but also explored in education. Maxwell Fry and Jane Drew continued their agenda in architecture by setting up a series of design studios at the Architectural Association School of Architecture in London. This program ran for a couple of years in the 1960s and drew students from all over the world. In response to climatic conditions, in the US the solar house movement emerged in the mid of the twentieth century. One prominent example is the Zome house by Steve Baer in New Mexico, 1972. The design of the house is based on a courtyard house. However, Baer develops the house based on what he called the Zome geometry, which basically is a series of connected cells around a courtyard. Another distinct characteristic of the house is the use of drumwall as a means to collect energy. The response to the place is through the solar geometry and planar surface to collect energy. The parti may relate to houses in the southwest and the properties of the wall also somehow relate to the adobe wall.

With the emergence of Postmodernism in architecture in the late 1970s and 1980s, the debates in architectural shifted to the semiotic reading of a design. In terms of the issue of locality in architecture, the rise of this approach to design led to the emphasis on the use of figurative elements and the rejections of abstraction. Architectural features of local buildings, such as sloped roofs or particular forms of columns, heavily informed the appearance of design. The intention of expressing identity through direct visual appearance led to the popularity of approaches such as Neo-traditionalism. In this line of design, the re-appropriation of vernacular and traditional buildings implies the hope that the designs would somehow perform similarly to their references.

2.0. ON PLACES AND PERFORMANCES

Anderson's discussion essentially argues that architecture is a mnemonic device that stores memories, including the knowledge of and about a place. These memories are stored as spatial and formal logics and the materials and tectonic aspects of buildings. At a deeper level, these aspects relate to the symbolic aspects that refer to a place, not only in physical terms, but also in socio-cultural terms. Approaches such as critical regionalism explore these carriers of memories, while problematizing the encounters between memories of a particular place with the universal influences. In a way, these attempts historicize memories by considering them in dialogues with the historical contexts. On the other hand, the engagements to a place as represented by the writings of the Olgays and Drew and Fry extract and isolate formal, spatial, and tectonic logics that allowed them to develop an abstraction of a place, which then can be applied to other places. While the Olgays tend to consider the location in engineering terms, Drew and Fry attempt to provide a series of formal and spatial strategies. In a way, these memories are cut off from its own contexts and abstracted into a matrix of universal solutions to environmental challenges that a locale poses. In practice, the history of modern architecture in the twentieth century suggests that the engagement with the notion of place also reflects the same tendency. The first and second generation of architects tend to abstract locale, whether the abstraction of the site or abstraction of the local building traditions. Work such as those of Le Corbusier put the emphasis on the performance of the buildings over the

iconographic aspect. In true modernist fashion, his buildings are more of montage and collage of local and universal architecture. The later development tends to put the emphasis on the iconographic side of designs. In short, the approaches to the issue of place are either abstraction of the site or abstraction of the formal, spatial, and tectonic knowledge of local building tradition.

In this line of thought, the work of Moholy-Nagy offers an interesting view. Her works aims to articulate architecture as a carrier of memories as embedded in ways buildings related to environmental conditions and their impacts on human activities. In other words, the knowledge of localities is stored in the performative aspects of buildings. One only needs to recall the way Walter Benjamin characterizes architecture as a form of art that is appreciated in the state of distraction. It is precisely because architecture does not require sustained concentration that it able to affect human life. Architecture provides us with a backdrop for our daily life, thus entering our sub-consciousness and forming our daily habits. Further, Benjamin argues that the appreciation of architecture is not simply visual, thus formal, but more importantly tactile reception. It shapes and informs our life through the way it regulate our life through its spatial organizations and the physicality of the enclosure. This physicality of the enclosure precisely relates to the management of the micro-environment in which life takes place. Thus, our experiences are always the result of the formal, spatial, and tectonic arrangement. More specifically, the experiences relate to the experience of a place, that is, the memories of particularities. In this vein, the performative aspects of a building also relates to the symbolic role of architecture.

The challenges of investigating the relationship between the performative aspects of a building and its symbolic structure inform the design research project for designing an environmentally and locally appropriate hospital in West Borneo, Indonesia, conducted at Georgia Institute of Technology from 2008 to 2010. The project calls for a design that is appropriate to its functions and its contexts, both physically and culturally. Thus, the intentions of the research is to inquire possible ways for the design to perform, not only as a medical facility, but also as a structure in relationships to its particular environmental conditions, available materials and techniques, and specific socio-cultural practices. In terms of healthcare, the challenge was to deliver quality healthcare that is adjusted to local practice. Architecturally, it means that the design intends to engage the ways the local culture deal with care of the sick in spatial and programmatic terms. In terms of specific local conditions, the project requires ways to provide the facility with power and water, both of which are very limited. Along this line, another challenge relates to the efforts to minimize materials derived from the tropical forests. These set of challenges point to the vernacular building practice in the area. The project also aims to relate to the local building traditions, as buildings in contemporary styles tend to alienate the local population.

The agenda for this project then is to engage building traditions and practices in the area as a way to uncover local knowledge. Further, the idea of using building performances as the base on relating the design to the place informs the project, in a belief that the performative aspect is the storage of the memories of the local community. In this line of thought, the project examines examples from the area in terms of formal, spatial, programmatic, and tectonic aspects and then tests the way these findings behave. In formal terms, the project investigates the typology at various scales and how they relate to the environment as well the visual structure relate to the relationship between the community and buildings. Spatially and programmatically, the project studies the various organizations of space from the region in relationship to the environmental condition and to the healthcare program. In effect, the programmatic, spatial, formal, and tectonic approaches to the design are based on close readings of architecture in West Borneo, including traditional, vernacular, colonial, and modern architecture. However, the research did not only rely on the pasts. Instead, it takes into considerations the way contemporary factors, such as new materials, impacted local practices. These findings feed into the design process. A series of charette with the locals measure the degree of the acceptance of the designs. Meanwhile, possible tectonic solutions are studied though physical models. Further, the project tests design proposals generated from these steps through models and simulations. The formal solutions and choice of materiality are tested though computer models to simulate the performance of the design. The research also experiments possible ways to bring findings from local practices into contemporary conditions.

For example, it studies possible ways to use contemporary materials available in the areas in new ways. The design research deliberately avoids basing the process on a choice of a theoretical approach. Instead, it relies on data of architecture of the locale.

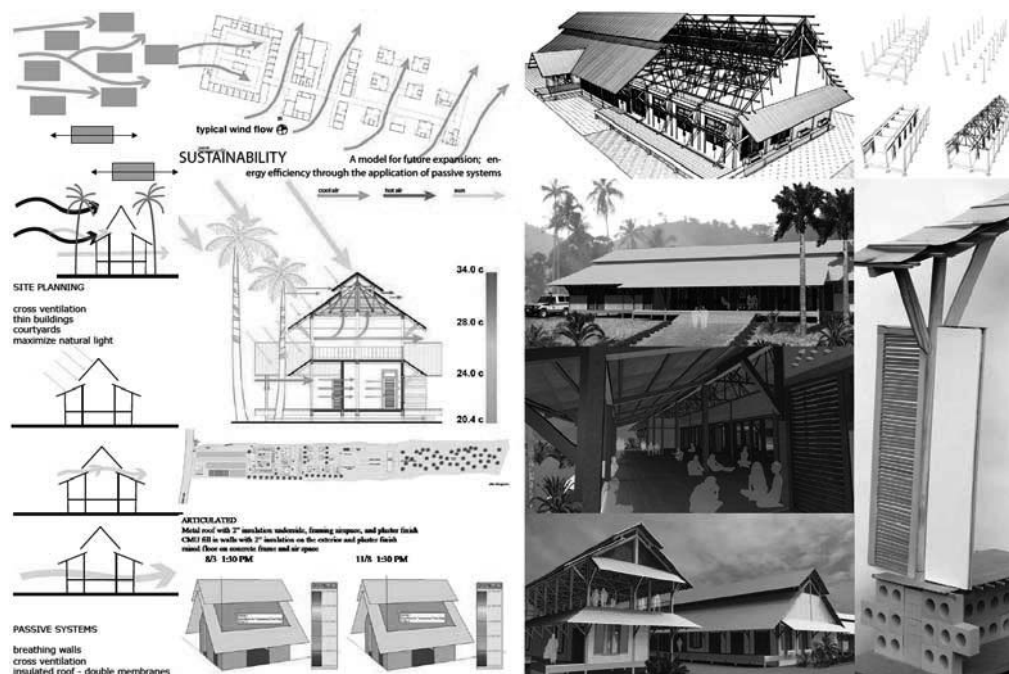


Figure 3: The Borneo Hospital Project. Source: (Borneo Hospital Workshop led by the author, 2009-2010)

Conclusions:

Architectural design is about enacting memories, including memories of a place. These memories are stored in the formal, spatial, tectonic, and programmatic organization embedded in buildings. Thus, buildings are archival storage of knowledge about the built-environment. The specificity of architecture lies on the very notion of enactment, which covers not only the visual aspect, but also the haptic effects. The visual and the haptic elements work together to inform the experiences of locality. In this line of thought, theories in architecture stand as a way of interpreting architectural work, including the interpretation of the notion of locality carried in a design. They engage these interpretive tasks in three different ways. Theories can be descriptive, in that they describe existing buildings and decipher its iconological structure and its symbolic connotation. They can also be prescriptive, providing principles of design that inform design practice. Theories can also take a distance from practice and deliver critiques. However, theories can take a different stance, that is, through a reflexive practice. Instead of being instrumental or simply critical, theories respond to design outcomes and provide feedback to practice. In the long run, this feedback loop will contribute in producing new theories as well as exploring the intersection between theories and practice. The challenge is to develop rigorous methods of inquiry in doing so, one that was attempted in the design research for the Borneo project. This methodology takes into account varying degrees of the interactions between the local and global, as well as of building knowledge embedded in practices and traditions.

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