

Decoding Vernacular Architecture to Conceptual Design of Bann Non Wat Learning Center Building

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— *Review of* —
**Integrative
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Abstract

The purposes of this research were to: Study identity and decode vernacular architecture of Bann Non Wat; inherit identity and decode vernacular architecture of Bann Non Wat; apply to concept design idea of Bann Non Wat Learning center building. The methods of this research are collected data from any concern documentations, survey, interview, and from case studies

The results found that the residents of Bann Non Wat still live their lives in old tradition way which are simple, tranquility, and self sufficient. The identity of Bann Non Wat vernacular architecture are simple, sincere, and truly. So that the conceptual designs of Bann Non Wat learning center building is “Sincere with Nature”: sincere in simple design for user; sincere in using local material or simple material selection; truly use simple structure; sincere with context; and take advantage all natural resources such as natural light and natural ventilation in to the design.

Keywords: Vernacular Architecture, Decode

1. INTRODUCTION

As an architect and a lecturer at department of Architecture Nakhon Ratchasima Rajabhat University, vernacular architecture is a topic that always interests me, especially “Reun Korat” (Nakhon Ratchasima Provence Tradition house). Although the current environment and the way of life has changed, but the identity of our bloodline of ancestors remain in our spirit, and hidden in vernacular architecture. Vernacular Architecture reflecting local traditions, the environmental, cultural, technological, and historical context in which it exists. The architecture not for aesthetic purposes but based on local needs and construction materials that are common in the area. It’s not only architectural heritage, but also local wisdom for built suitable and comfortable house from their ancestors which came from trial modifications to the housing environment context pass through many generations. A few years ago, I was informed that there was a Korat House over 200 years old and still inhabited at Bann Non Wat Civilization (The village which ancient skeletons more than six hundred skeletons were excavated, including pottery artifacts and jewelry more than four thousand years old.). Coincided, Bann Non Wat community and Nakhon Ratchasima Rajabhat University has collaborated on establishing a learning center Bann Non Wat Civilization. They also plan to build a learning center building. I saw an opportunity to do research decoding the vernacular architecture at Bann Non Wat, and integrated the data to propose them a concept design for a learning center building.

The objective of the study is to: study identity and decode vernacular architecture of Bann Non Wat; inherit identity and decode vernacular architecture of Bann Non Wat; and apply to concept design idea of Bann Non Wat Learning center building.

The methods of this research are collected data from any concern documentations, survey, interview (headman, villagers, and village carpenter), and from case studies.

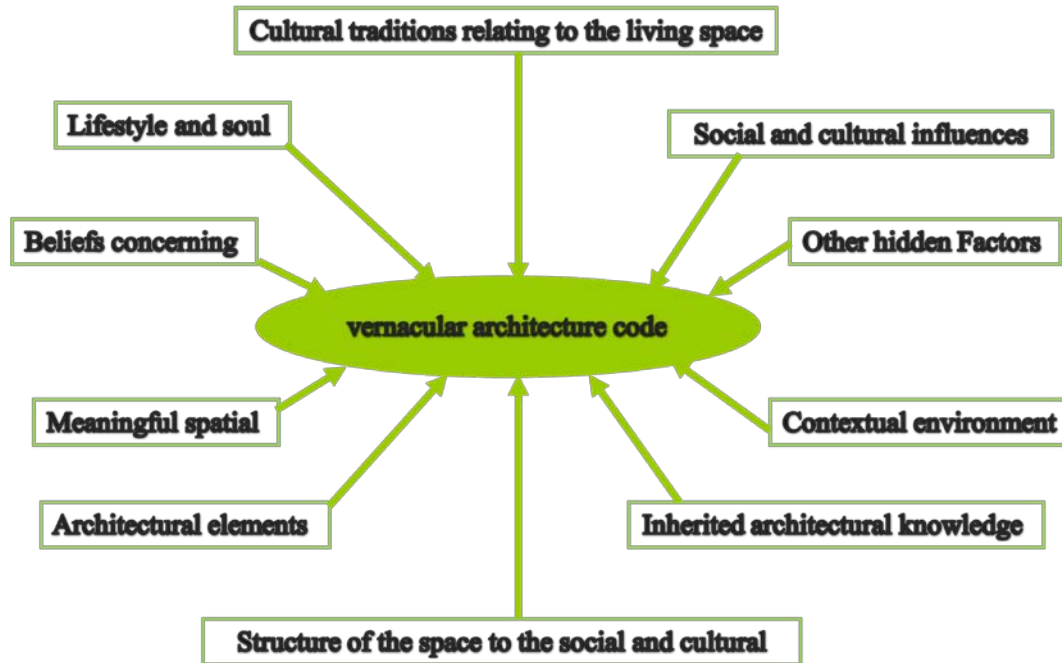


Figure 1. Components of Bann Non Wat vernacular architecture decoding

2. CASE STUDIES



Figure 2. Bann Non Wat Aerial Photograph
 Source : Developed from Google Earth Aerial Photograph

Bann Non Wat is a small agricultural village. Located in Tam Bon Phon Songkram, Amphur Non Sung, Nakhon Ratchasima Province, northeast of Thailand. This village sits upon a mound which 350 meters in diameter and 6 meters raises above the surrounding floodplain. This village has continued to homestead residence at this place for several generations, more than 4000 years.

Most of houses are either using an old wooden but with improvements, renovation or demolition wood, and build a new house. Traditional house in the village was mostly hipped roof house with two bedrooms, kitchen, patio, raised-up floor on pillars about one meter height (The open space on ground level area is called “Tai Toon Bann”). The residents used “Tai Toon Bann” for multipurpose usage such as open living space in the daytime, sheltering animals at night or storing agricultural tools. Number of steps by an odd number like 5, 7, 9, and 11.

Villagers still use the traditional lifestyle of simple living ancestor which is: simple; tranquility; self sufficient; adhering to the culture and religion; helping each other as they are relatives; living by the clock of nature and waking up at sunrise and sleeping at sunset. On daytime, they may use “Tai Toon Bann” for doing handcraft or relaxing while some member may go out to farm. The upper floor of the house is used only to sleep at night or store valuables assets.

There are 3 case studies Vernacular Houses that were recommended by village headman which are: Mrs. Jomnong Cherkjorhoo’s house; Mrs. Fai Thongsooknork’s house; and Mr. Smarn Noiklang’s house.

1. Mrs. Jomnong Cherkjorhoo’s house
2. Mrs. Fai Thongsooknork’s house
3. Mr. Smarn Noiklang’s house

1	
2	3



Figure 3. 3 Case Studies Vernacular Houses

The original 200+ years old house.



Rebuilt house from dismantle an old house.

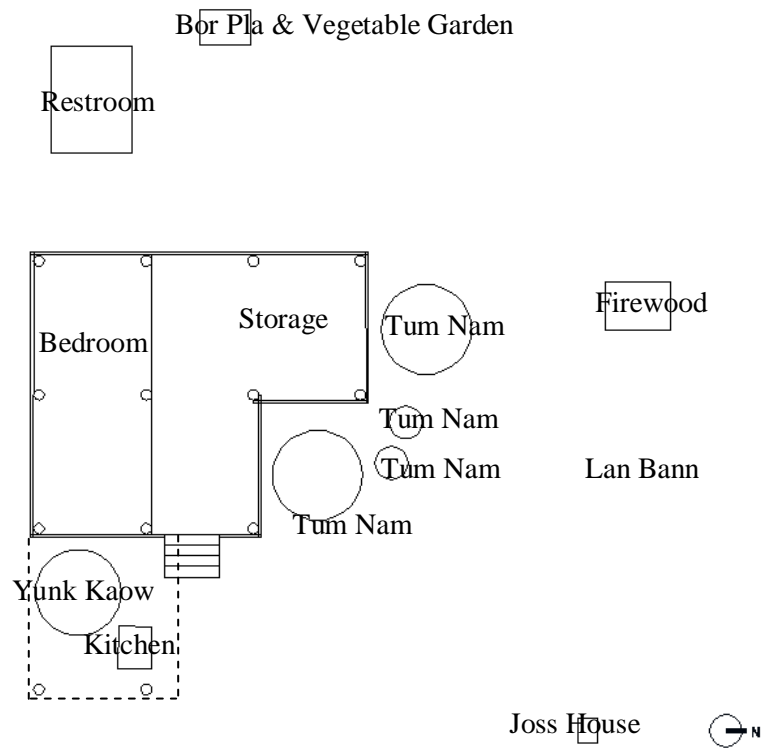


Figure 4. Picture and Plan of Mrs. Jomnong Cherkjorhoo's house

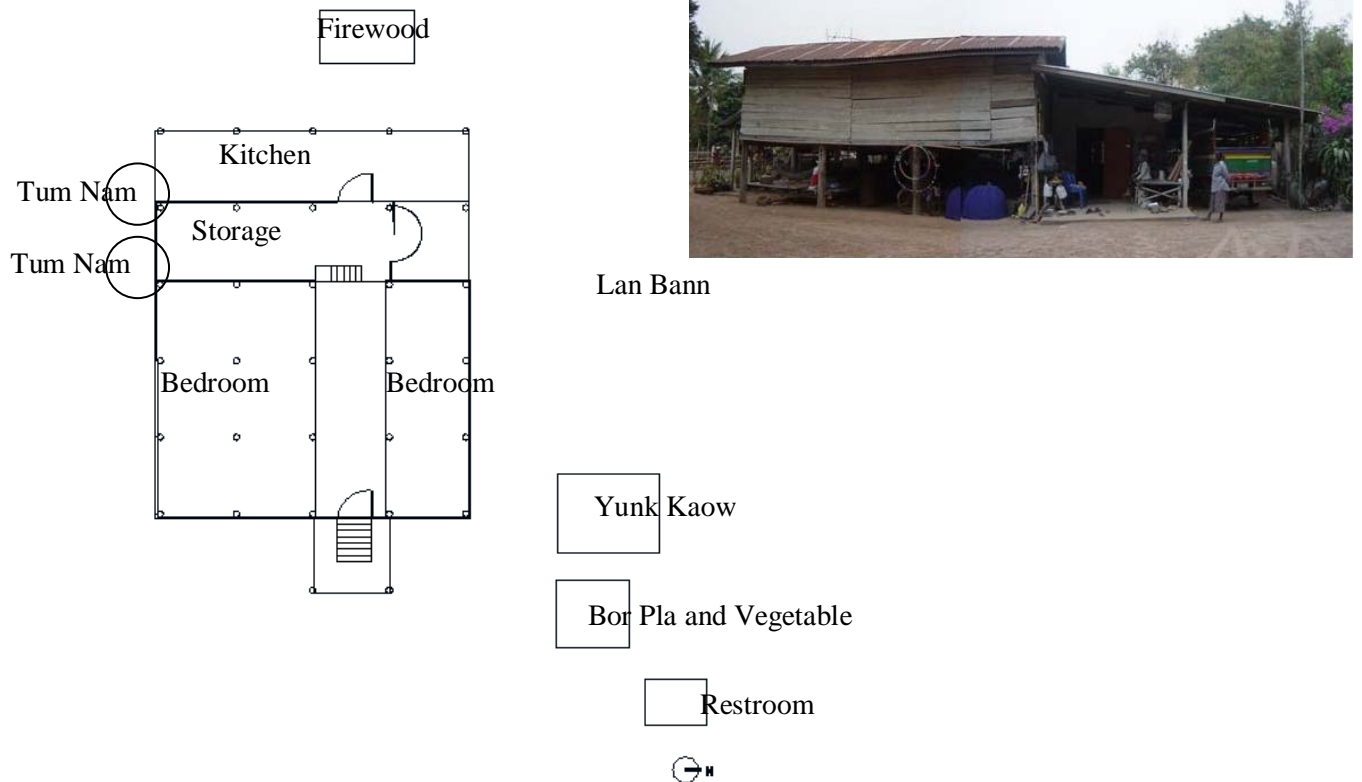


Figure 5. Picture and Plan of Mrs. Fai Thongsooknork's house

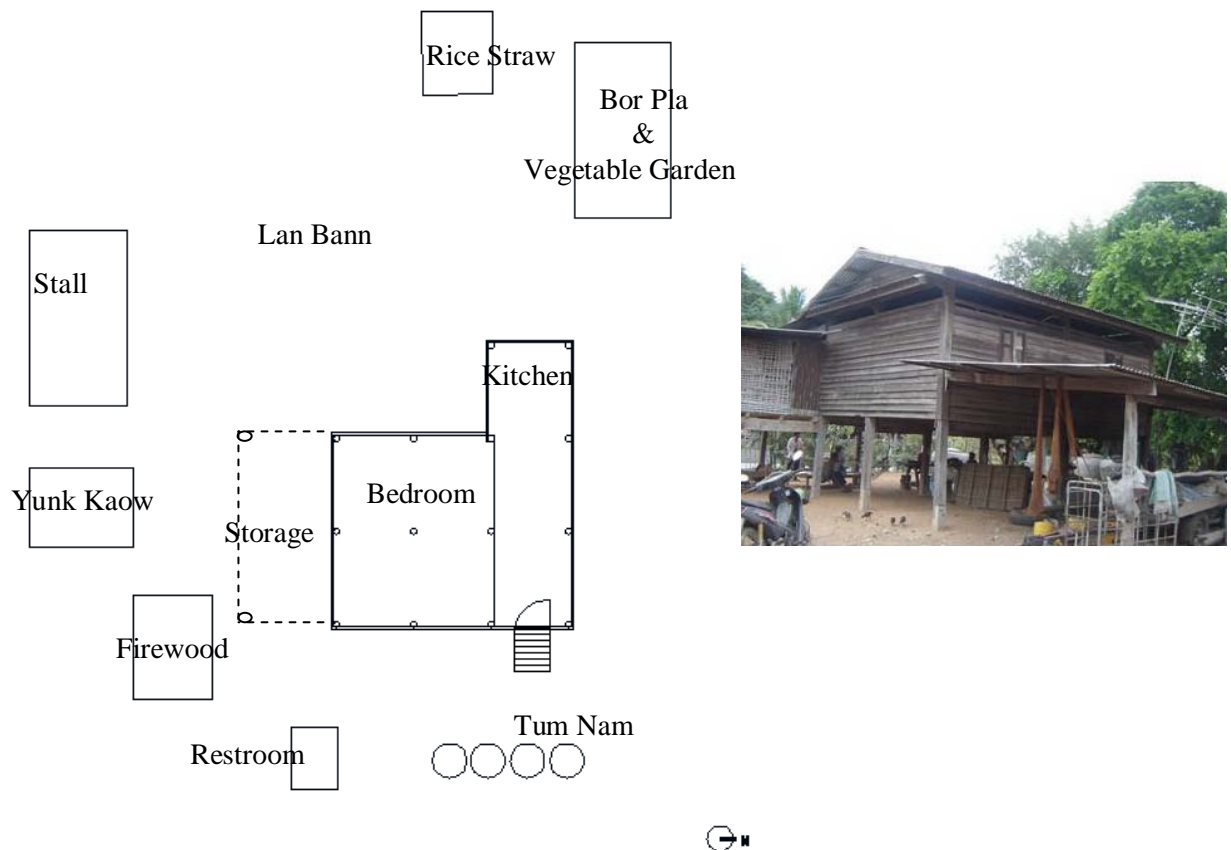


Figure 6. Picture and Plan of Mr. Smarn Noiklang's house

Mrs. Jomnong Cherkjorhoo's house, the original inherited house was aged about 200 years. Characterized by a high wooden house, high roof model homes in central Thailand. Unfortunately it was dismantled few years ago. The owner brought the wood and materials of the original house to build a new house across the street, and has her cousin who is a professional carpenter helping on rebuilt. They try to build a new house to look as similar as the old house. But some of wood was damage due to pull apart, so they can't have the same height of roof or same height of raise-up part. All materials are reuse and recycle such as: old tin roof; partitions which blend of bamboo, tin, and prue (local material made from prue leaf). "Tai Toon Bann" use for chicken and storing agricultural tools. The ladder of this house is an ancient style with 5 steps and be able to pull away in the night. Second floor use as an open plan bedroom and keep valuable assets.

Mrs. Fai Thongsooknork's house is about 100 years of age. This plank walls house has some renovation at the back of the house; adding storage, kitchen and garage. "Tai Toon Bann" use for storing agricultural tools and relax. Second floor use as an open plan bedroom and keep valuable assets.

Mr. Smarn Noiklang's wooden house is about 60 years of age. Walls of this house made of plank and bamboo. "Tai Toon Bann" use as open living room. Bedroom and kitchen are on second floor.

All 3 Case Studies Vernacular Houses have some typical function similar

- "Tai Toon Bann" (open space on the ground level)
- "Lan Ban" (Yard)
- Bathroom outside of the house
- "Yunk kaow" (Barn)

- “Bor Pla”(Fish Pond)
- Vegetable Garden
- “Tum Nam” (water container round shape made out of clay)
- Firewood storage

Materials use in these 3 case studies houses are local material, simple material that can get from local store, or reuse/recycle materials. And they just use them to protect from natural disaster not for beautiful decoration purpose.

If the decoder is to find the truth that hidden. All the above truly information that was discovered is the architecture code that can be used as a resource in determining the concept of architectural design suits local.

Therefore, the concept of design learning center civilization of Bann Non Wat. The idea is to rely on sincerity. The straightforward nature of the reality of Bann Non Wat was built into the design. The fact of Bann Non Wat villagers, the traditions, the community life style, or the civilization those long last more than 4,000 years. The truth of the environment context, the nature of the usefulness construction materials which consistent with its use, or the idea of functional before aesthetics for their house.

The design of learning centers should be simple of shape and plan, straightforward, uncomplicated. The structure of the building should be simple, with pillars and beams. The building envelope and furnishing should use local materials or materials that are readily available, not luxury but should be linked to the type of material or jewelry discovered in the excavation pit.

The activities zone should be an open space or outdoor activities such as “Chan” (the upper terrace) or “Lan Bann” (Yard). The exhibition zone or some other function that require closed area, the design should be taking an advantage of natural light and natural ventilation as much as possible. The simulation pit excavation of civilization Ban Non Wat can be place on the ground level as “Tai Toon Bann”.

Finally, the researchers concluded the definition and concept of architectural style or the nature of the reality of all the above derived from this research as “Sincere with Nature”. That means sincere in simple design for user, sincere in using local material or simple material selection, truly use simple structure, sincere with context, and take advantage all natural resources such as natural light and natural ventilation in to design.

3. CONCLUSION

Unfortunately, the result of this research is not presented to the Committee Learning Center. Because the project architect has finished his blueprint before this research is completed. However, the researcher gave this research paper to headman of Bann Non Wat for future use.

For those who interested in in-depth research in the future should be insights into the excavation pit area by working with archaeologists to find information that can be associated with dwelling in a community of this ancient civilization.

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