

# The Relationship between the Architectural Style of the Area's Residential Waterfront Communities of Bangnoi Floating Bangkhonthi Districts Samut Songkhram Province

Kunyaphat Thanakunwutthirot

**Abstract**—Bangnoi Floating Market located at Bangkhonthi Districts Samut Songkhram Province is a valuable architectural market. The lifestyle of the community's relationship with the living space and the relationship between the architectural style of the area's residential waterfront communities of Bangnoi Floating Bangkhonthi Districts Samut Songkhram Province, which deserves to be preserved.

Therefore, this research it helps to know the value of the architectural style of the area's residential waterfront communities of Bangnoi Floating Bangkhonthi Districts Samut Songkhram Province, which deserves to be preserved.

**Keywords**—Bangnoi Floating Market, floor plan of riverside community architecture, riverside architectural identity, style of riverside community architecture utility space.

## I. INTRODUCTION

BANGNOI Floating Market is one of those old floating markets with more than 100 years old located in front of Wat Koh Kaew, Bang Khonthi District, Samut Songkhram Province. In the past, Bangnoi Floating Market was a major waterway hub of Mae Klong River for fruit and farm product trading market for farmers nearby. Bangnoi Floating Market was deemed a large trading area before transport development including roads approached to the old communities and some communities moved to live along the newly constructed roads [3]. As a result, Bangnoi Floating Market was turned from a market into an old riverside community that still preserves simple and traditional living and riverside way of life. Thus, the researcher realized an importance of creating local architectural knowledge of the Bangnoi Floating Market community [2].

Identity of riverside community architecture could be seen from diversity of architectural compositions and it is the unique characteristic of the riverside community [4]. The settlement of the Bangnoi Floating Market community is generally found along and turning to face the canal in order to utilize the water for consumption and transport. Houses on both sides of the canal are usually single- and double-storey ones built adjacent or in continued range along the canal. This

is deemed the identity of the original riverside houses built in the past [1].

Changes resulting from tourism developments may turn those wooden houses into the modern ones and shops with colorful decorations following tourists' preferences. Some buildings are transformed into sleek home stays, hotels and accommodations that are able to serve lots of visitors. These may eventually change physical environment and riverside community architecture and result in lack of tradition preservation [6]. Currently, physical development of the Bangnoi Floating Market community is just in the start-up process, so preservation of the architectural identity and traditional locality characteristics are essential for raising awareness in value and traditional characteristics. It will also reflect proper eco-tourism development and physical development of riverside community architecture conforming to people's way of life. It will not destroy overall environment of the area and still maintain traditional style of riverside community architecture utility space [7]. Consequently, the research question is what relations between the style of riverside community architecture utility space and floor plan of riverside community architecture are.

The research is mainly aimed to study relations between the styles of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community architecture in order to create local architectural knowledge of the Bangnoi Floating Market community, Bang Khonthi District, Samut Songkhram Province.

The objectives of the research are to: 1) explore style of riverside community architecture utility space of Bangnoi Floating Market community, Bang Khonthi District, Samut Songkhram Province; 2) explore relations between the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community architecture, Bang Khonthi District, Samut Songkhram Province; and 3) promote knowledge in the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community that is the architectural identity of the Bangnoi Floating Market community, Bang Khonthi District, Samut Songkhram Province with community guidebook.

Research findings would benefit local development authorities and people in the community who wish to preserve traditional locality, identity of architectural utility space and floor plan of the riverside community architecture by applying their local wisdom along with proper preservation methods.

Kunyaphat Thanakunwutthirot is with the Technology Computer Application In Architecture, Faculty of Industrial Technology, Suan Sunandha Rajapath University, Bangkok, Thailand (Phone: (+66) 2160-1451; fax: (+66) 2160-1440; e-mail: kunyaphat.th@ssru.ac.th).

## II. THE OBJECTIVES OF THE RESEARCH

- 1) Explore style of riverside community architecture utility space of Bangnoi Floating Market community, Bang Khonthi District, Samut Songkhram Province.
- 2) Explore relations between the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community architecture, Bang Khonthi District, Samut Songkhram Province.
- 3) Promote knowledge in the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community that is the architectural identity of the Bangnoi Floating Market community, Bang Khonthi District, Samut Songkhram Province with community guidebook.

## III. RELATED CONCEPT AND THEORIES

1. Theories regarding architectural identity meaning
2. Theories regarding architectural patterns related to local wisdom and livelihood.
3. Theories regarding architectural empty spaces and utilization
4. Theories regarding space uses and sizes of residence

## IV. EXPECTED BENEFITS

### A. Social/Local/Community Benefit

People in the community are able to use knowledge to build, improve or repair their riverside architectures. This is to create and maintain identities of the riverside architectures in Bang Noi floating market community, Samut Songkhram Province and bring about community strength.

### B. Economic Benefit

Bang Noi floating market has become famous in the aspect of traditional community identities, thus constructing new buildings that is not affecting visionary aesthetics is a significant thing, attracting tourists and making local businesses better in which having constructive media (manual) that is able to distribute knowledge regarding the architectural identities of riverside community, Bang Noi floating market, Bang Khon Ti District, Samut Songkhram will allow local people to make use of such knowledge.

### C. Policy Benefit

This is consistent with art, religious and cultural policies that support local wisdom as well as Thai art and cultural diversity. These are also ways of life, good social values and Thai uniqueness that are suitable for learning and distributing to the world society.

### D. Academic Benefit

Researcher and academicians are able to integrate their research findings into several areas i.e. tourism development, urban planning, conservation of riverside community architectures and so on.

## V. RESEARCH METHOD

This study used both qualitative and quantitative methods in which in terms of quantitative study, the research used data from surveys, questionnaires and statistical values to identify collaboration and used it as analytical results while in terms of qualitative study, the research used data from interviews, records, group discussions with sample groups that made use of the riverside community architectures, community leaders and related experts. The research employed both the qualitative and quantitative data in analyzing and finding conclusion [5].

Research methodology and data analysis used in this study were as follows:

Gathering data and information related to patterns and floor plans of riverside architectures by utilizing the architectural building survey equipment as detailed:

Part 1: survey information and location consist of name of respondent, address and name of the building, activities performed or benefits received from the building and image codes.

Part 2: characteristics of architectures consist of number of unit, building access, sort of building, present uses, number of floors, wall and roof materials, building shape and door pattern.

Part 3: Analysis (architectural value) consists of

- i. Building value specification according to the following sub-topics:

Age of building by indicating: a range of time period of building

Access by indicating: convenience, easy or difficult to access

Involvement with significant historical events, specific characters, rare local symbol or being a representative, indigenous characters or consistency with surrounding conditions, local attachment accepted by indicating : Yes or No (with a comment)

- ii. Building assessment according to the following sub-topics:

Location, surrounding areas, present use, design, foundation characters of building, walls, roofs, eaves, windows, ventilators, splashboards, balconies, stairs and door patterns.

Part 4: Drawing of floor plan, utilization of floors in architectural floor plan areas.

The research process was as follows:

1. Theoretical concepts related to the analysis of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community architecture, Bang Khonthi District, Samut Songkhram Province.
2. Gather information

3. Explore relations between the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community architecture, Bang Khonthi District, Samut Songkhram Province.
4. Check out the relationship between the architectural style of the area's residential waterfront communities of Bangnoi Floating Bangkhonthi Districts Samut Songkhram Province.
5. The results of the evaluation the relations between the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community architecture, Bang Khonthi District, Samut Songkhram Province.
6. Promote knowledge in the style of riverside community architecture utility space and floor plan of the Bangnoi Floating Market community that is the architectural identity of the Bangnoi Floating Market community, Bang Khonthi District, Samut Songkhram Province with community guidebook.

## VI. FINDINGS

Patterns of using architectural areas of riverside community, Bang Noi floating market, Bang Khon Ti District, Samut Songkhram Province, it was found that people in Bang Noi community frequently built their houses along the canal. They would locate their front houses facing the canal in order to make use of water for consumption and transportation for both sides of the canal. They mainly used riverside walkways to get in and out of the community for both sides of the canal. Buildings had been used for commercial and residential purposes adapted to changing environment nowadays. However, they still preserved traditionally riverside architectural characteristics.

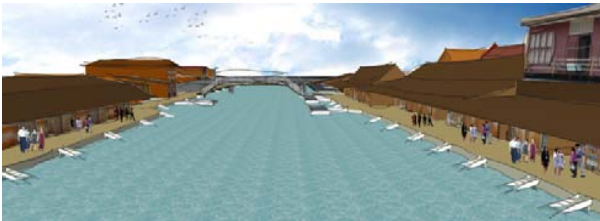


Fig. 1 The front houses facing the canal in order to make use of water for consumption and transportation for both sides of the canal

Results of finding collaboration between patterns of using architectural areas and floor plans of riverside community architectures, Bang Noi floating market, Bang Khon Ti District, Samut Songkhram Province, it was found that most riverside architectures about 80% had collaboration in which using areas of architectural floor plans in the community was still able to maintain riverside architecture identities such as locating the front houses or shops that would like to make use of the spaces between outside and inside of the building against the canal. In addition, the riverside walkways were mainly used as the main walkways to access the community, although there was a road access to the community from the

backside which there was a monasterial space separating the riverside community and the second walkway, including boat transport as vehicle was less popular, resulting in the collaboration with the floor plans inside the riverside architectures of such community. The three most perfect and valuable architectures were Rak-Na-Bang-Noi Shop, Ruen-Mai-Ngam Shop and Huey-Shun-Tueng Shop from the following criteria:

- They were ancient riverside architectures and examples that were rare to find and showed riverside architectural development.
- They arranged the floor plans for space utilization regarded as outstanding samples or architectural identities. The identity of floor plan arrangement also represented buildings along the Bang Noi riverside market.
- They reflected adaptation that was consistent with ecological systems, landscape and weather that had uniqueness of the riverside architectures.
- There was the floor plan arrangement for space utilization, reflecting collaboration with cultural ways of life of the riverside community.
- They were the riverside architectures that reflected local wisdom in construction and local material uses.
- They were the riverside architectures associated with significant local histories.
- They showed original and traditional conditions of the riverside architectural values.

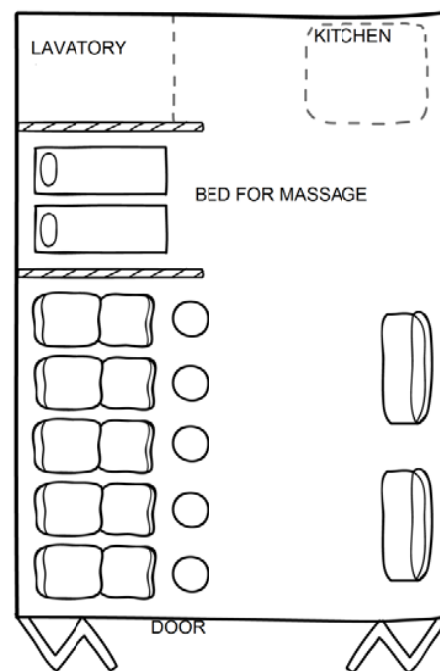


Fig. 2 Examples floor plan of the Thailand Massage shop at Bangnoi Floating Market, Bang Khonthi District, Samut Songkhram Province.



Fig. 3 Examples that were rare to find and showed riverside architectural development

## VII. DISCUSSION

The identities of riverside architectures are getting less important due to new economics and society emerging. These cause rapid changing architectural patterns. If there is not a study or conservation of traditional architectural knowledge, people, in the future, may forget their origins and knowledge accumulated from the past or unsuitable construction in the areas in terms of physical, economical, and social conditions. As a result, there is a need to understand the architectural identities in order to use it as database for each community so that they could use it as an adaptive guideline for their residence. This study is a first step to raise awareness of the identity values of traditional architectures of the community and a supportive part to encourage the community to arrange the floor plans and riverside space organisation in the community in June 2014.

## VIII. RECOMMENDATION

The sequent research should study the riverside architectures in each region of Thailand in order to find the architectural identities of each region.



Fig. 4 Community atmosphere, waterfront

## ACKNOWLEDGMENT

The author would like to show deepest gratitude to Research Institute of Suan Sunandhat Rajabhat University for giving the opportunity and scholarship to do this research.

## REFERENCES

- [1] Kevin Lynch, *The image of city*, U.S.A.: the M.I.T. Press, 1960, pp. 47-48.
- [2] Research, conservation and rehabilitation. Architecture Chulalongkorn University, 2549.
- [3] Pattaraporn Polpanadham, *Social Network Promoting tourism at Bangnoi Float Market*, Suan Sunandhat Rajabhat University, 2011. pp. 75-78.
- [4] Apinyafuengfusakun. *Identity*. Bangkok: Office of the National Research Council of Thailand, 2546.
- [5] Yangzhou Urban Planning Bureau/ GTZ/Yangzhou Urban Planning & Design Research Institute, "The Sustainable Urban Conservation of Shuangdong Historical District", 2005.
- [6] Watcharaporn Khuaphan, *Guidelines for the Rehabilitation of Old Communities: Singh-Tha, Yasothon Province*, Mahasarakham University, 2011.
- [7] Sawangsri, P. (2003). *Old Community rehabilitation and development: The Baan Singh-Tha Yasothon province*. Master of Architecture Thesis, Faculty of Architecture Urban Design and Creative Arts, Mahasarakham University, MahaSarakhm, Thailand.