



A House Renovation for Cultural Tourism in Trok Baan Chin Community, Tak

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Abstract

A residential building renovation project for cultural tourism, Trok Baan Chin Community was manipulated from Mr. Konjanart Traiyang, founder of the Konjanart Engineering Co, Ltd. or the Clinicbann, who had a strongly conscious mind of his homeland development. The Trok Baan Chin community generally, is known as a historical Thai and Chinese community where locates along the Ping River in Rahaeng subdistrict, Muang district, Tak. Presently, there were a number of local residential buildings that most of them have been abandoned and decayed. Meanwhile, the renovation of a local house had been assigned to the Clinicbann, in order to alter the living space to be a mixed-use of tourist information and commercial building. From the aforementioned, it conducted the objective of collaboration between the Clinicbann and the Faculty of Architecture, Rangsit University which aimed to increase the number of re-use old abandoned houses in this community to preserve the value of the local buildings and neighborhoods and to promote the cultural tourism in the Trok Baan Chin community. This method is mainly contributed by architectural survey and measurement, together with collectively historical data. Consequently, those collective data were determined and synthesized in order to carry out the design framework. The results showed that the residential space could be replaced by commercial which in accordance with the regulations and safety. Furthermore, the historically analytic results were adapted to the design implementation. In conclusion, the outcome of this study showed an appropriate implementation process of renovating old abandoned buildings which based on Trok Baan Chin's context. The achievement that was expected to support cultural tourism by preserving the identity of local buildings and to support tourism in this historic community. Therefore, this methodology can be able to apply to preserve the value of other local buildings in different contexts.

Keywords: *Building renovation, cultural tourism, Trok Baan Chin historical community*

1. Introduction

Trok Baan Chin Community is one of the oldest communities located on the east bank of the Ping River with stories and historical significance. This community is the original commercial area of Tak town (See Figure 1). As it is an important product stop that connects the trade to the northern cities, including trading with neighboring countries since the end of the reign of King Rama IV (Rama 4) until the Second World War period. By this time, the area of Trok Baan Chin community is a waterfront community area. Therefore, the style of houses is a row house that can trade and live (See Figure 2). As well as being the residence of important people in both the public and private sectors that contribute significantly to the prosperity of water trade and transport activities in Tak until becoming an important economic area. Later, during the time that Field Marshal Thanom Kittikachorn holds the position of prime minister. There was a change of the physical characteristics in Trok Baan Chin community area by covering with soil on the river banks in order to expand the area of the city. (Namjaidee, 2013) Therefore, the impact of the authority's concept makes the way of life of the people trading along the river disappeared. Furthermore, future generations are unable to continue the social and cultural way of the traditional community that has already changed.



Figure 1 A Google map (2019) shows the construction site of the renovated house project, where is located in the Trok Baan Chin historical community



Figure 2 A collection of antique Wooden paddles that could be referred to the shipment of goods on the Ping River

However, the development project of Trok Baan Chin Community Way was established again in 2010. The Tak Cultural Office has supported the project of “Conservation of the Architecture of Trok Baan Chin Historical Community in Tak Province”. It is a collaboration between government agencies and community members on behalf of "Conservation of Trok Baan Chin Group" with the objective to organize activities to create cultural learning resources. The operational procedures of such an organization were processed by selecting the buildings that are valuable and important to the history of the community, then, opening such buildings for tourists to visit the beauty of the Baron House which reflects the traditional way of life of Chinese descent in the community. However, the opening of the houses for tourists to visit becomes the burden of the building's owner to provide hospitality for tourists every week. Furthermore, some old houses had too many visitors so that the wooden structure was damaged and risk to collapse (See Figure 3), while the relevant agencies did not provide continuous support. Such effects have caused the cultural tourism activities of the knowledge sources in Trok Baan Chin community to cease.



Figure 3 A deterioration of the wooden house's entrance, which was impacted from over live load by a number of visitors

The inspiration to restore the local lifestyle of Trok Baan Chin Community was restarted from the determination and conscious mind on homeland development of Mr. Konjanart Traiyang, who suggested that several local houses in his hometown community have been abandoned and decayed, in spite that those buildings are valuable in terms of the history of the Trok Baan Chin community and their stories can be traced back to the early Rattanakosin period. Moreover, the Konjanat Engineering Co, Ltd. or the Clinicbann had signed a contract to renovate the abandoned local house. Then, it was the beginning point of the cooperated activities between the Faculty of Architecture, Rangsit University and the Konjanat Engineering Co, Ltd. to implement the 4+1 project. This participation mainly focused on the conservation and restoration of historic buildings for tourism in the Trok Baan Chin Community. The mission has requested a permission for rental space to launch the Trok Baan Chin Café & Gallery project. This renovation project is designed to re-function the residential space to a commercial space together with the community's learning resource for supporting the cultural tourism in this historic community.

The renovation project that re-functions the residential space into the Trok Baan Chin Café & Gallery for supporting tourism activities needs to consider physical and technical factors that affect the building safety and compliance with laws and local regulations. Having been abandoned for a long time, the building materials will inevitably deteriorate, especially in the part of the structure, weight load-bearing that is applied to the building from the change of functions, space, technology, materials, and construction method which may need to be adapted to apply modern materials in combination with traditional materials. As well as the legal requirements for building control, the sizes of the building area are also factors that must be taken into account in determining the new design of the commercial space. However, such reconstruction should be carried out mainly in the area of living space. In addition, the characteristics of the building should be kept as traditional as possible in order to maintain the value of buildings (Daengkul and Kaewlai, 2013) that affects the identity of the community context. According to the analysis of the technical limitations of the building, it still needs to have a process of analyzing the tourism system factors in order to know the goals of the change. Regarding such factors, they need to be analyzed in other related contexts as well, such as Tourism and service activities, communication of Tourism information, Marketing demand and supply, including legal requirements, Economic, Society and Culture factors, environment, public utility, public assistance, and the physical context of the tourist attractions. (Preechapuch, 2016)

Therefore, this framework is to study the ways to improve residential buildings for cultural tourism in Trok Baan Chin Community by adopting a lifestyle context, culture, and history together with the concept of renovating the old residential buildings of Trok Baan Chin, in order to transform an abandoned



community into a highlighted tourist's destination. With a method of adapting the vacant space in the buildings to meet the needs of tourists under the framework of the traditional building model, the identity of the historical Chinese-Thai community in Rahang subdistrict, Muang district, Tak province can also be promoted. Furthermore, the project was created to interest and attract tourists to select this place as their destination.

2. Objectives

The main objective of this article is to focus on proposing ways to improve the traditional residential buildings in Trok Baan Chin community, by using the method of surveying and recording architectural styles, together with studying the historical resources of the community to conduct the appropriate design guidelines that can support cultural tourism activities.

3. Methods

The methodology of this study is in the form of historical research, by researching from the case study building which is the primary source of information with the following steps in operation:

3.1 Study the historical data of the community from documents and related research papers in order to know about the way of life, use of vacant space in residential buildings, construction materials and technology, including the change of community context that affects the case study building.

3.2 Study the architectural styles, demand for living space after renovating the building to analyze guidelines for building renovation that are appropriate to the context of the project location.

3.3 Physical data analysis, value and importance, living space requirements, legal restrictions, techniques, methods and possibilities in construction in order to analyze the architectural model for laying the framework for proper building renovation.

3.4 Analyze the architectural styles for laying the framework for building renovation that can support cultural tourism activities.

3.5 Evaluate the performance by the project owner, discuss, summarize the results and recommendations for applying to other communities in different contexts.

4. Results and Discussion

Regarding the process of researching historical data of the community from documents and related research papers caused to know the historical sources of the community that affects the value of the residential building in Trok Baan Chin area, which can be considered as follows;

4.1 Study results of the historical data of the community

In the past, Trok Baan Chin was an important commercial area on the travel route of the Ping River, which links trade between northern districts and border trade with Bangkok, resulting in a large number of people settling in this area. The main objective of the people settlement is to live and operate a business, therefore affecting the perception of the characteristics of the community that reflects the image of being a residential area of wealthy people and Thai-Chinese descent groups. The consequence is the popularity of residential buildings of the Baron family in this area which has influenced the style, Architectural art, Technician techniques that convey the identity of the house owner. And later, those dwellings became the identity of Trok Ban Chin community.

Baron houses in Trok Baan Chin area are mostly wooden buildings with roofs mixed in Western architecture. Such a building pattern was popular during the reign of King Rama 6-7, the era in which Thai architecture was influenced by Westerners. Regarding the survey result of the Baron house in Trok Baan Chin community that was built during that time, it was found that the building model showed the skills of Thai technicians in those days in the application of construction materials in the country to conform to the foreign building styles. In addition to the fact that Tak was one of the most important forestry industries in Thailand, consequently wood has become a popular building material. Therefore, the structure and material elements of mostly local residential buildings in this area used wood as the main material for construction.



As for the roof, it was popular roofing with clay tiles, which were installed with the roof elements consisting of bearers, joists, rafter, batten, and wattle (Krirish, 2015) according to the principles of Thai construction technicians at that time.

Art of architecture and decoration styles of buildings in the Trok Baan Chin community was popular to install a wooden fretwork over the window to utilized natural airflow for ventilation, and the windows were also equipped with wooden louvers as well. (See Figure 4.) Such this technique has represented the wisdom of the tropical architecture as a principle of an adaptive environment for interior thermal comfort (Boonyatikarn, 1999).



Figure 4 Samples of the Fixed Wooden fretwork and the Ventilated windows which installed on some local residences

Regarding the use of the interior space of the Baron house building in Trok Baan Chin area, it was found that the internal function was usually divided into different sections, in order to control access, such as public space section, semi-public space section, private space section and service section. As the public space section and semi-public space section, it aisled from the public route along the Ping River. While the private space section is placed at the end of the area, while the service zone is often separated from the house. According to the study of lifestyle which exhibited at the Muang Tak Museum, it was found that some of the Baron houses used a semi-public space section for the public in the type of space for important visitors or close relatives. There was a large wooden trunk as a reception area for having Chinese tea and sitting for general conversation.

Referring to the study of historical data, lifestyle and activities for the use of vacant spaces of Trok Baan Chin people, when analyzed with the elements of the tourism system, it will be able to analyze the purpose of using space with a new pattern that is conducive to supporting tourism activities in the community.

4.2 Architectural model of case study building

The building survey results found that the condition of the building appeared as Ruan Saranai Building, raise the basement, roof with a gable and hip roof which similar to a western roof style with Saranai wood as a gable decoration. The whole building structure is made of wood. The main residential area on the upper floor supports living activities and can be divided into 2 bedrooms. The front side has a large terrace under the gable mixed with hip roof and a lower wing pinion roof. The walls of the building and the original floor were all wooden. All windows are double open windows. There is the ventilated wooden façade which called Korsong that it was installed on the top of the panel. The wooden fretworks were not only used for decoration but also providing natural ventilation. Particularly, then these fretworks emphasized the unique architectural characteristics of local residential buildings in this historic community. For the kitchen and bathroom building, it was separated as a service area. Furthermore, the evaluated results of the existing wooden structure found high levels of erosion and damage, especially at the base of the



columns (See Figure 5). In addition, the building condition was unsafe and unable to gain impacted loads. According to the requirement of changing the living space to accommodate the tourism activities, the engineer proposed to demolish the building first to make the foundation and the new building pillar, and then reassemble the remaining part of the wall to maintain the appearance of the building as close to the original characteristic as possible, by considering the building condition as follows,



Figure 5 The House originally was abandoned and decayed, then it was on disassembling process

4.3 Conceptual framework for the building renovation for tourism

The specific building is located in the central area of Trok Baan Chin community, which can be conveniently connected to other historical buildings. Therefore, it is a main factor to promote the purpose of building renovation to have the potential to support cultural tourism activities in the community with more possibilities. In this case, the results obtained from the study, research papers, historical and community data sources, and the architectural form data obtained from the building condition survey were integrated. Thus, we are able to analyze the framework for building renovation and summarize the ideas in various aspects as follows:

4.3.1 Operational framework and space requirements

The information obtained from the building survey makes the awareness of the operational framework in determining the size of the building and the techniques for renovating the building condition according to the project objectives, which can be considered from Table 1 as below.

**Table 1** Framework of the building renovation

List of Works	Existing Building	Renovated works
Site Work		
Drainage and Sanitary system	- None drainage - Sanitary system was broken down.	- Working based on Sanitary District Regulation
Landscape	- Brownd field	- Landscaping design
Structural Work		
Foundation	- Matt Foundation	- Bored pile
Column	- Hardwood column size 6" x 6"	- RC Column
Floor structure	- Hardwood bearers size 2" x 4" - Hardwood joists size 1 1/2" x 3"	- Hardwood bearers size 2" x 4" - Hardwood joists size 1 1/2" x 3"
Roof Structure	- Hardwood rafter size 1 1/2" x 3" - Timber roof batten size 1" x 2" - Timber roof batten size 1" x 2" - Timber roof wattle size 1" x 1"	- Steel C-section 75 x 50 x 20 x 3.2 mm - Metal roof batten - Steel collar beam 2C-75 x 50 x 20 x 3.2 mm
Architectural Finishing		
Floor	- Existing top soil on the lower floor - Hardwood plank size 1" x 6" on the upper floor	- Ceramic floor tile - Hardwood plank size 1" x 6" on the upper floor
Wall	- Hardwood siding - Wooden fretwork	- Hardwood siding - Wooden fretwork with fixed clear glass window
Ceiling	- Exposed ceiling	- Timber ceiling with Fiberglass insulation thickness 3"
Doors and Windows	- Hardwood	- Hardwood
Roof	- Clay tile	- Clay tile

The information obtained from the analysis of the tourism system made the consideration of the guidelines for determining the living space to be consistent with the tourism activities in Trok Baan Chin community. The list of needs to improve the living space can be considered from Table 2 as below.

Table 2 Requirements of the building renovation

List of Works	Existing Functions	Adaptive Functions
Site work		
Site work	- Brownd field	- Landscaping design: Chinese garden
Function		
Lower Floor	- Space under a Thai house	- Gallery and Café - Male and female restroom
Upper Floor	- 2 Bedrooms - Balcony - Restroom - Kitchen	- Multimedia and exhibition hall - Balcony - 1 Bedroom - Restroom



4.3.2 Concepts and Design processes

Architectural details that are defined in accordance with the operating framework and requirements of living areas as above mention can be integrated with the concept of design and renovate the vacant space of building to create new utility and promote the value of the identity of Trok Baan Chin community to become the tourists' attraction. Regarding the concept of designing and renovating residential buildings for cultural tourism in Trok Baan Chin community, it can be divided into various aspects as follows.

1) History and community way

Based on the historical background of the people in Trok Baan Chin community, most of the settlers are wealthy people with Thai-Chinese descent. Along with the study about the way of life and culture analyzed from the use of vacant space in many houses in the community, therefore, pushing for the idea to improve the use of the original residential area to become a coffee shop and community learning source

(See Figure 6-7). It was processed by establishing guidelines for creating space to promote the perception of the community's way environment through the form of interior decoration and the external landscape (See Figure 8).

2) Environmental aspect

The concept of designing and renovating residential buildings in Trok Baan Chin community not consider only the historical, social and economic issues, but also the design guidelines that take into account the environment as well. The building renovation process sets out the elaborate framework for the removal of the original building elements in order to be able to apply the original materials for reuse. It is one of the principles of building design with environmentally friendly. In addition, the idea of creating an outdoor landscape that combines the style of a Chinese garden with the selection of plants suitable for the climate can also promote the environment in the community by adding green areas into space (See Figure 9).

3) Social and economic aspects

The concept of renovating a vacant space in a residential building to support cultural tourism activities can be a part of social and economic development for Trok Baan Chin community. The result of the project will create employment for people in the community and motivate people in the community to not abandon their settlement. At the same time, the project also helps encourage community members to realize the value of community life conservation.

4.4 Creative work to renovate the living space of residential buildings to support tourism activities.



Figure 6 Interior design of the Trok Bann Chin Café (Lower Floor)



Figure 7 Interior design of the Upper Floor: the Trok Bann Chin Gallery and information center (Upper Floor)



Figure 8 Architectural design: View from the main road (Left). Landscape design: View of the main entrance (Right)



Figure 9 Landscape design: View of a Chinese garden with a moon gate



4.5 The discussion

This study found an appropriate implementation process of renovating old abandoned buildings based on Trok Baan Chin's context. The achievement was expected to support cultural tourism by preserving the identity of the local buildings and supporting tourism in this community. In addition, this implement process was similar to the study of Adaptive re-use of vernacular houses for tourism in Wat Ket Community, Chiang Mai, (Siriwatchaiporn and Isarathumnoon, 2018). In this case, many local buildings have been properly adapted so they could preserve their values and importance in order to promote tourism. However, the context of Trok Baan Chin community was contrast explicitly, particularly in the requirements and a number of tourists. The concept design of renovating an old abandoned building by changing the interior space from residential functions to commercial purpose was applied under the framework of the traditional building to meet the objectives and needs of tourists. Moreover, benefits from this renovated project were expected to a return in investment and also created an awareness of community values as well as improved the environment for better living quality. In conclusion, this project increased the number of re-use old abandoned houses in Trok Baan Chin community to preserve the value of the local buildings and neighborhoods. Therefore, this process will be able to implement for other different communities.

5. Conclusion

This study makes us know the process of combining the living, cultural, and historical contexts together with the idea of renovating the old abandoned residential buildings of Trok Baan Chin community. The process is to have the appropriate architectural style and decoration and also preserve the identity of the original building combined with the changing way of using vacant spaces to meet the needs of tourists under the framework of traditional building styles. The procedures of studying the community information, both historical, social, and economic aspects, as well as community development policies, are important factors that help stakeholders to make decisions to determine the guidelines to apply for changing the living space of the building to suit the context of community. Furthermore, it is able to conserve the value of the prominent point of the building and the area that will encourage tourists' motivation to choose this place to be a travel destination. Therefore, this study model can be applied to other communities in different contexts to promote the development of quality tourist attractions in the future.

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