

The Composition and Value of Architectural Heritages in Pattani Old Town

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Abstract

Pattani Old Town, with a total area of 2.35 square-kilometers, is a city having a long history that generates important value and identity in Thailand. The composition and value evaluation process of the architectural heritage sites in Pattani Old Town are examined in this paper, with the objective of characterizing a spatially-defined cultural economy in the Pattani Old Town multicultural ring. The architectural heritage value assessment was done by a committee of experts and key stakeholders based on a weighted rating approach that considered six different criteria: value of the historical and archeological narrative; age and historical character; the buildings, places, and archeological sites condition; architectural and artistic characteristics; the composition and image of city; and the importance to society and community. Results of the value assessment showed 49.3% of the sites received a high score while 50.7% received a moderate score. No sites had a low score. It was found that the old town composition and the valuable architectural heritage sites with a high rating are clustered in the Anoru Sub-district, covering Hua Talat and its neighboring communities, and especially the three architectural heritage sites along the historical roadsides of Anoru Road, Pattani Pirom Road, and Ruedee Road. On these roads, various styles of architectural heritage sites, including traditional Chinese architecture, neoclassical architecture, art deco architecture, mixed Chinese-Malay architecture, and modern architecture are observed. The identification of the old town composition and the value evaluation of the architectural heritage sites led to recommendations for urban planning measures in Pattani Old Town that included a specific plan for managing land use and obtaining permission for construction, repair, and modification of the remaining buildings.

Keywords

Old Town; Value Evaluation Architectural Heritages Pattani

1. Introduction

“The Old Town” is a city region designation in Thailand with unique characteristics that have been inherited from historical times. Its identity includes local cultures, mixed architectural styles, and social evolution styles inherited through several eras. In other words, the old town used to be a traditional city in an era according to historical evidence or architecture. It is valuable in terms of art, archaeology, and history, representing distinctive physical evidence of the city structure or archaeological sites from the past. However, it also has existed as a continuously living city from the past until now.

Pattani has a long history and its value and identity have made it one of the most significant old towns in Southern Thailand. Hence, in B.E. 2555 (2012), the Office of Natural Resources and Environmental Policy and Planning (ONEP), under the Office of Secretariat of the Rattanakosin and Old Cities Conservation and Development Committee, declared the total area of 2.35 square kilometers of Pattani as Pattani Old Town (Figure 1).

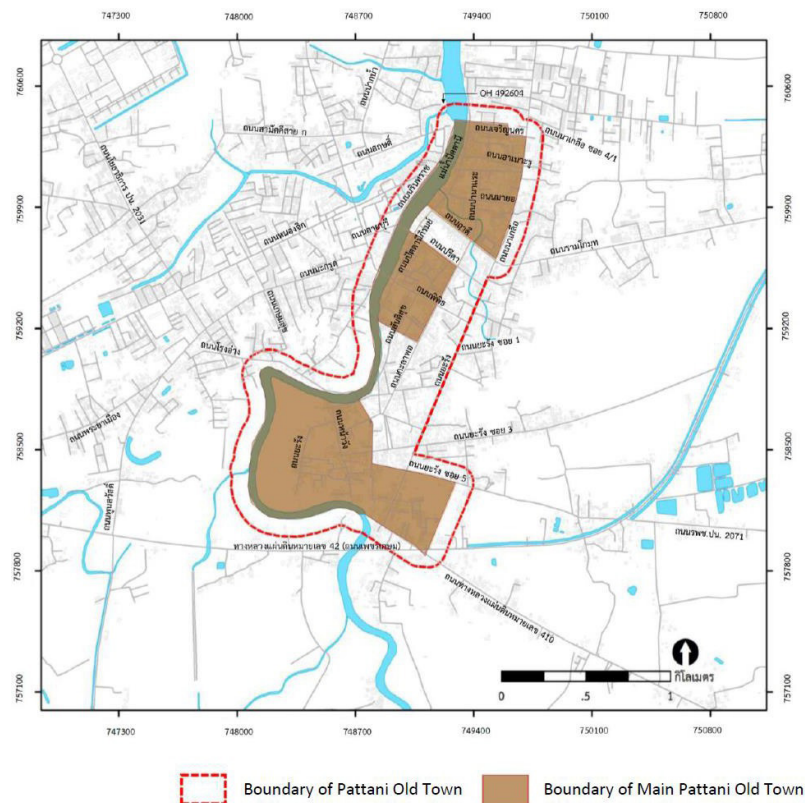


Figure 1 The boundary of Pattani Old Town.

The evaluation of the architectural heritage in Pattani Old Town to characterize a spatially-defined cultural economy is the overarching objective of this paper. More specifically, our objectives were threefold: 1) determine the compositional elements of Pattani Old Town through study and analysis; 2) explore the historical and archaeological value of Pattani Old Town in relation to its composition and architectural heritage sites; and 3) based on composition and value of the architectural heritage sites, make recommendations with respect to conservation and future development planning.

2. Conceptual Framework

2.1 The concept of old town compositional determination

The value of items that should be preserved is based on their particular uniqueness, in the spirit of place with respect to the character of a town. Valuable items are examined at the urban, community, and district levels in terms of concrete identity and abstract identity. The combinations of elements that build cities will lead them to have unique characters or identities in contrast to those of other areas.

Local characteristics can be observed from the unique physical composition. According to Lynch (2018), who studied the *Image of the City*, the physical composition derives from system analysis – with concepts concerning identity, structure, and meaning. In other words, the combined elements that build cities possess individuality and includes their physical relationship in space. Perceptions that focus on comprehension, resulting in feelings as well as functional and emotional attitudes, also are part of this unique physical characteristic, particularly if the image of a city is composed of pathways, districts, edges, landmarks, and nodes.

Worskett (1969) noted that landscape can indicate particularities, including population, architectural styles, and topography. The size of a distinctive area is a core element that exhibits changes and indicates the history in relation to other surrounding areas. Landscape improvement must therefore be suitable for an area's particularity to maintain its lifestyles and identities and to create substantial feelings of connection with the city's old structure.

According to a study on the unique city's composition (Kirdsiri, 2008), it was concluded that the city's composition could be divided into three major categories: 1) physical composition, which is a factor promoting the activities for people to live their lives, i.e., houses and surroundings characteristics, settlement, land utilization, street, transportation, and empty areas; 2) economic composition, which is an essential element, i.e., occupation and people's economic activities in a community; and 3) socio-cultural composition, which is an element that supports a peaceful community, i.e., nationality, daily routine, tradition, culture, and beliefs of people in a community.

2.2 Methodology: The concept of evaluation of architectural heritage

The conservation and development of an old town are concerned with preserving entire buildings, surroundings, and valuable areas. There are also factors to be considered for the conservation and development, including history, archaeology, ancient characters, architectural value, works of art, building conditions as well as the value of an old town's composition of archaeological sites, buildings, and landmarks. The evaluation for prioritization is a method for value recognition. The value level of archaeological sites, buildings, and landmarks that benefit the old town determination and the importance of zones in each old town area, particularly the zones with clustered high-value buildings, is beneficial for determining conservation strictness, restoration, and development. According to the evaluation and importance of old town composition, the following assessment criteria by area surveys (Office of Natural Resources and Environmental Policy and Planning, 1998a) are considered:

1) *The value of the historical and archeological criterion* is concerned with the importance of history and archeology, as well as the level classification of an area as to whether it qualifies at the national or local level. For example, a site can be classified as crucial if it involves a past occurrence, a key figure, a city, or evidence indicating evolution and city civilization. Scores are given by consensus in descending order depending on relevance, with a maximum score of three.

2) *The value of the age and ancient character criterion* is concerned with the age of a city's composition regarding its construction date, age of buildings, or historic character estimation in terms of methods of construction, skilled craftsmen, and biography of buildings. Scores are given by consensus in descending order depending on the age and historic character of buildings, with a maximum score of three.

3) *The value of the buildings, places, and archeological sites condition criterion* is concerned with the condition classification of buildings and important places, i.e., the quality of building conditions, the level of dilapidation, and the possibility of reconstruction. For example, if there are two buildings of similar artistic values, and one of them is of better quality, that building will earn higher points despite the difficulty in reconstruction. Scores are given by consensus in descending order depending on physical appearance, with a maximum score of three.

4) *The value of the architectural and artistic criterion* is concerned with the architectural and artistic appearance of buildings categorized by their appearances and configuration in comparison with the same type of buildings at national and local levels. They can also be compared with the architectural characteristics of buildings in the area that are not found elsewhere, or they are valued in terms of unique construction. Scores are given by consensus in descending order depending on the architectural and artistic appearance of the buildings, with a maximum score of three.

5) *The value of the composition and image of a city criterion* focuses on unequal connection with other parts of a city. Each compositional relationship illustrates the old town's development pattern and shows area usage, specifically the unoccupied old city's size proportion and each compositional combination of the city and its surroundings. This criterion includes consideration of the urban community design to acknowledge the effects of significant urban elements on the perception of the image and imagination of buildings, places, and city areas. Lynch (2018) referred to the concept as "Image of the City" stating that "when you traveled to some city, i.e., position and location are easy to notice when it is on the main thoroughfare, located at traffic intersections, or located nearby unoccupied areas. There is noticeable path and edge in the city, or the buildings have uniqueness in physical characteristics – landmark or district which is especially for both physical characteristics and activities on that district, etc." Scores are given by consensus in descending order depending on the physical appearance and perception of each area, with a maximum score of three.

6) *The value of the importance to the society and community criterion* is concerned with how buildings and archeological sites are important to the society and whether they are currently part of a district or community system acknowledged by people as relevant to the area, such as being a holy place, a city public space, etc. For each item, the maximum score is three, and an additional score weighting is given differently. The weightings are mutually agreed upon by 5 evaluators who consisting of representative who were selected by voting from the Pattani Old Town Conservation and Development Subcommittee, the community committee in each area, civil society, local and regional government agencies, and old town conservation academics. The rating weight was multiplied by the score for each value evaluation and the importance of the architectural heritage site in Pattani Old Town. That is, three points were given regarding the value of the historical and archeological criterion, two points regarding the value of the age and historical character criterion, three points regarding the value of the buildings, places, and archeological sites condition criterion, three points regarding the value of the architectural and artistic criterion, two points regarding the value of the composition and image of a city criterion, and three points regarding the value of the importance to the society and community criterion, respectively.

As a result, the scores received from the analysis and the essential compositional value evaluation of Pattani Old Town were based on the fore-mentioned, weighted, criteria. The total score obtained can be utilized for distinguishing the planning levels of importance and appropriately determining the potential of the city's essential elements such as archeological sites, buildings, and landmarks in the old town area for conservation and development.

The evaluation of the architectural heritage sites in this research was conducted by a group of stakeholders and experts in cultural heritage conservation through meetings and discussions. Once a consensus regarding assessment had been achieved, the scores of the architectural heritage sites were tabulated. The results from the initial evaluation were then brought to the meeting of the Pattani Old City Conservation and Development Sub-Committee to seek opinions and conclude as final evaluation scores, which will lead to further analysis to plan the conservation and development of Pattani Old Town.

3. Findings

Following the cabinet resolution on 10 February B.E. 2558 (2015), the total area of Pattani Old Town was declared to cover 2.35 square kilometers, which includes the Chinese communities on Anoru Road, Pattani Pirom Road and Ruedee Road, Tet Wiwat Market District, the Pattani Central Mosque as well as Chabang Tiko Old Town. In the past, these areas were the most prosperous areas along the Pattani River in southern Thailand. The prosperity of commerce and fisheries enabled Pattani to become a gateway of the source of civilization that welcomed visitors and various ethnic groups of people to settle and conduct commerce and other economic activities. The long history and the development of various ethnic groups' settlements have, therefore, made Pattani Old Town and its surroundings one of the essential cultural heritage sites in southern Thailand.

3.1 The historical value of Pattani Old Town

Pattani is a significant historical area and its inhabitants are extremely conscious of their past. Pattani is a province full of struggles in developing and progressing to its fullest. Historically, the governance of Pattani was gradually strengthened by international relations, intercultural collaboration, together with the federal government's desire for more effective administration. The Pattani of the past became a crucial strategic location and an economic center in the South of Thailand.

Pattani developed from small villages along the seashore. Because of the merchant shipping, the city expanded with a concomitant increase in population. Later, Raja Sri Wangsa decided to move the old capital from "Kota Mahligai" to "Pattani". In the old days, a significant effect arising from contact with foreigners, especially those from India and the Arabian Peninsula, was to accept Islam into the region. Pattani also historically had close connections with the Ayutthaya Kingdom but in B.E. 2106 (1563), the Pattani army staged an uprising in Ayutthaya. Because of this situation, the relationship between Pattani and Ayutthaya deteriorated. Moving forward in time, once Malacca became Portugal's colony, Pattani became a prosperous commercial center.

In the Rattanakosin era, King Rama I marched an army to successfully attack and occupy Pattani, and Pattani has been part of Siam ever since. During King Rama II's reign, Pattani was divided into seven burghs and a royal policy was issued. That is, six precincts in Pattani were established in 1923 to resolve conflicts rooted with existing administration; this eventually led to the dissolution of Pattani into three provinces, which nowadays are Pattani, Yala, and Narathiwat.

3.2 The composition of Pattani Old Town

Based on historical evidence, there was a longstanding development of habitation, with archeological evidence related to Pattani settlement being well-preserved and creating an old town composition.

This composition, in particular, is associated with the prosperity of an early commercial port in southern Thailand. Various buildings and landmarks that cluster together contribute to architectural heritage in Pattani, and these represent a significant cultural and natural tourist attraction. The old town composition illustrating Pattani Old Town is as follows:

1) City walls, moats, and fortresses

Pattani is a city with a long history of settlement. Nevertheless, the current location of Pattani is considered as relatively recent compared to older cities such as Yarang and Krue Se, which once were the former locations of Pattani. Hence, there is scarce evidence of city composition in antiquity such as city walls, moats, and fortresses. However, an important piece of composition evidence is the wall of Chabang Tiko Palace. The city's composition evidence also includes the traditional moat of Mueang Boran Ban Pra Wae. This moat is similar to the traditional moat of Mueang Boran Yarang where the ruins of several ancient buildings were also discovered. Although the current Pattani Old Town has no city walls, moats, and fortresses as per ancient city patterns, the old town's area has a natural boundary on the west side, the Pattani River.

2) The old town landmarks

Pattani is an estuary landscape city, most of which consists of alluvial plains with no dominant mountains appearing as a natural landmark from a long distance. However, nine buildings are considered landmarks in the city area: 1) Three Culture Clock Towers located along the Pattani River, 2) Dechanuchit Bridge Pattani, 3) Pattani Central Mosque, 4) Raya Fatani Mosque or Chabang Tiko Mosque, 5) The Leng Chu Kiang Shrine or Chao Mae Lim Ko Niao Shrine, 6) Taninarasamosorn Temple, 7) Wat Nikornchanaram, 8) Municipal Market Pattani; and 9) Tet Wiwat Market (Figure 2).

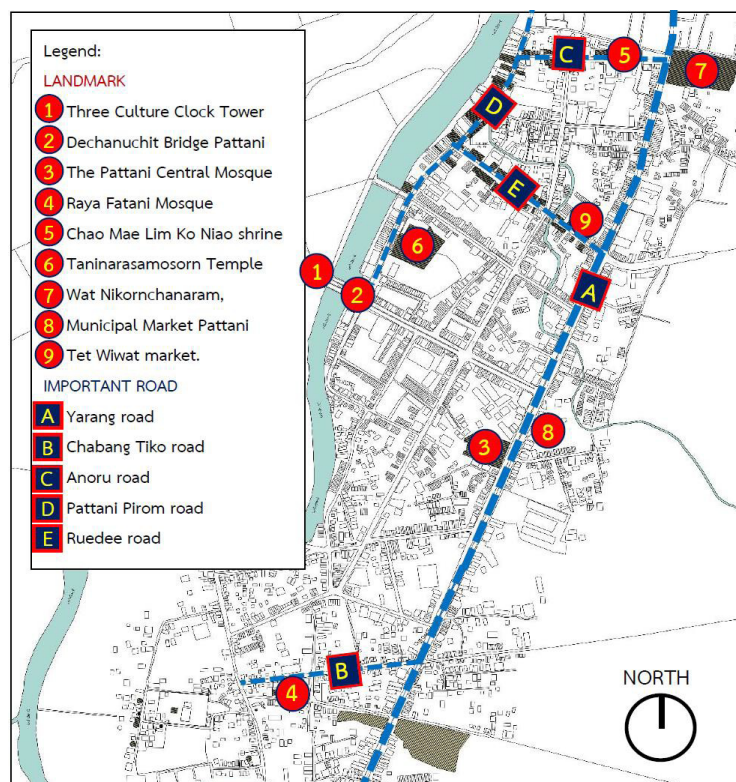


Figure 2 The location of landmarks and important roads in Pattani Old Town.

3) The old town transportation network schemes

The transportation network pattern of Pattani Old Town primarily extended from the linear settlement along the banks of the Pattani River. In other words, the main road was a road along the Pattani River, starting from Pattani Pirom Road to Chabang Tiko Road. In addition, Yarang Road was developed, resulting in two parallel roads in the north-south direction, whereas the east- west roads were built to connect Pattani Pirom Road and Yarang Road – Anoru Road and Ruedee Road. Once settlements grew, more roads were constructed to connect the east- west roads, thus resulting in a minor road grid having a north-south orientation. The development of settlements and the associated transportation network resulted in the scheme of a grid system in the northern Pattani Old Town that frequently is found in the old towns where the Chinese settled.

4) The important and valuable districts or areas of the city

Pattani Old Town, nowadays, is a city in which the administrative center and commercial center have been relocated several times. At the beginning of its administrative center construction, the city was located near the Pattani River – the south of Chabang Tiko Sub-district. Back then, it was governed by the Malays until the Thai central government changed administration system in provincial government system Pattani turn to be governed by the Chinese , who afterward moved its administrative center and commercial district to near the Pattani River, or in the northern section of the Hua Talat Community. Since the government complex was constructed by the Pattani River, the city's administrative center was moved to Sabarang Sub-district and the commercial center was moved to Tet Wiwat Market. When houses were densely built along Yarang Road, the Municipal Market of Pattani also was built along the road, hence making the area a core commercial center until now. For this reason, there are three important and valuable districts due to the city center relocation as follows:

The first district is the Chao Mae Lim Ko Niao Shrine community. This area covers the Khlong Chang community, the Hua Talat community, the Arnouhzunga community, and the Tet Wiwat Market community. The tangible cultural heritage, especially a cluster of valuable buildings, can be found in these areas. On the Aronu roadside, most of the architecture is of the traditional Chinese style. On the Pattani Pirom roadside, several ancient architectural styles are noticeable although many buildings of the modern architectural style were built in addition to the original ones. With this uniqueness, a large variety of architectural styles can be found in this area. The Ruedee roadside arose after the previous two areas. Hence, most of its architecture is post-modern, namely neo-classical architecture, art deco architecture, and modern architecture. The second district is the commercial district at Yarang Road. This district was formed by the development of Yarang Road, the construction of the Pattani Central Mosque on Yarang Road, and the construction of the Municipal Market of Pattani, which eventually became the impetus for the commercial center of Pattani to move to the area. Finally, the third district is Chabang Tiko Old Town. This area is the first settlement of Pattani Old Town and the location of the city governor's palace that ruled the Pattani burgh. At that time, the population was of the ethnic group of Malay Muslims. Archaeological evidence, cultural heritage, and several significant historical landmarks were in that area as well. There are traditional Malay houses and Malay houses influenced by the art of Europe located throughout the Chabang Tiko Sub-district.

3.3 The results of architectural heritage value assessment of Pattani Old Town

There are three significantly valuable districts in Pattani Old Town, namely the Chao Mae Lim Ko Niao Shrine Community, the commercial area along Yarang Road, and Chabang Tiko Old Town. All of these districts have different characteristic houses and landmarks. The identification of essentially valuable buildings

and places is necessarily required in the process of a model scheme and a master plan for conservation. The Pattani Old Town development might be considered as being representative of tangible cultural heritage sites that are evident as the most concrete objects in the city. The value evaluation and the importance of architectural heritage sites in Pattani Old Town are herein considered by the total score based on the six items of the assessment criteria by area surveys, as noted above: 1) the value of the historical and archeological criterion (A); 2) the value of the age and ancienry criterion (B); 3) the value of the buildings, places, and archeological sites condition criterion (C); 4) the value of the architectural and artistic criterion (D); 5) the value of the composition and image of city criterion (E); and 6) the value of the importance to society and community criterion (F). Based on the survey by architectural conservation experts and committee key stakeholders, 69 valuable architectural heritage sites were identified and assessed, with the score results of the value evaluation for each site being summarized in Table 1 and Figures 3-7.

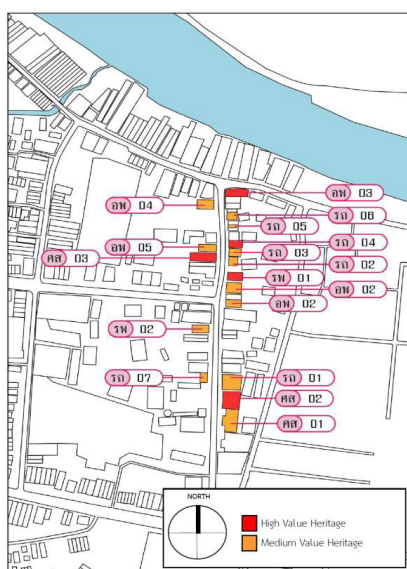


Figure 3 The location of architectural heritage sites along Anoru Road.

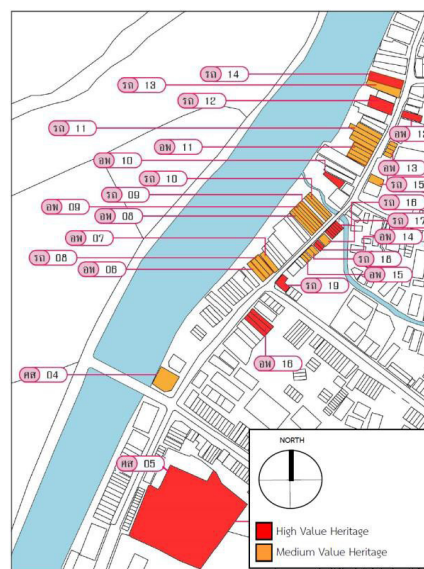


Figure 4 The location of architectural heritage sites along Pattani Pirom Road.

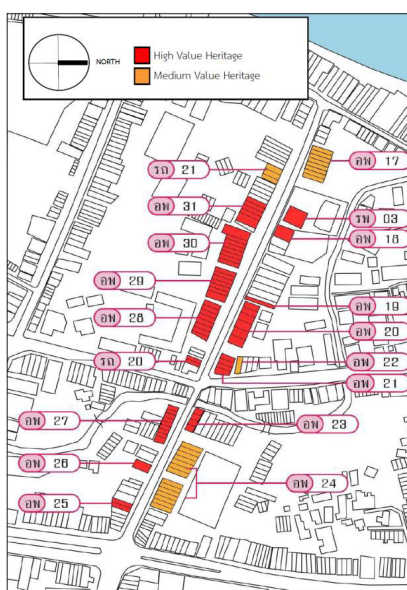


Figure 5 The location of architectural heritage sites along Ruedee Road.

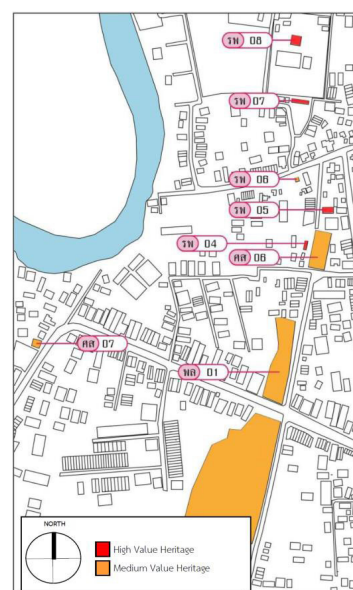


Figure 6 The location of architectural heritage sites in the Chabang Tiko area.

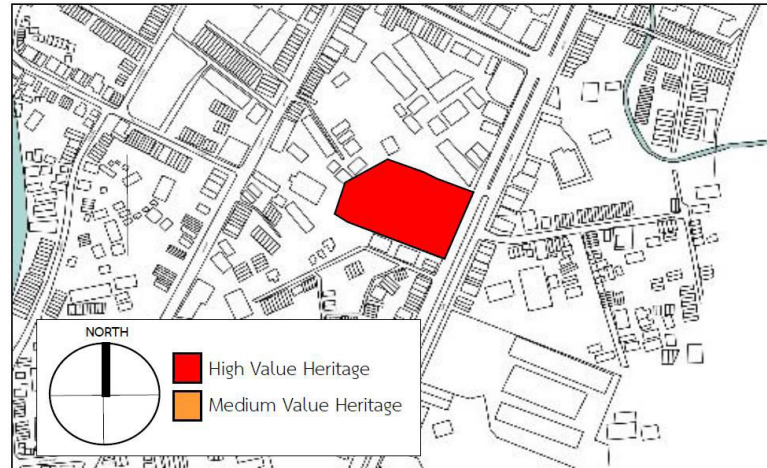


Figure 7 The location of architectural heritage sites in the new economic area.

Table 1 The Summary of Architectural Heritage Evaluation Scores in Pattani Old Town.

| No. | Code | Building | Architectural Heritage Evaluation Scores of Each Site | | | | | | | | | | | | | Value Level | |
|-----|-------|---------------------------|---|--------|-------|---|---|---|---|---|---|---|---|---|----|-------------|-------------|
| | | | Criteria No. | A | | B | | C | | D | | E | | F | | | Total Score |
| | | | | Weight | 3 | 2 | 2 | 3 | 2 | 3 | | | | | | | |
| | | | | | Score | S | T | S | T | S | T | S | T | S | T | | |
| 1 | พล 01 | Toh Aryor Tomb | 2 | 6 | 2 | 4 | 3 | 6 | 0 | 0 | 3 | 6 | 2 | 6 | 28 | Medium | |
| 2 | WH 01 | House No. 59 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 3 | WH 02 | House No. 50 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 4 | WH 03 | Eng Chiang House | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 5 | WH 04 | House No. 19 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 6 | WH 05 | House No. 9 11 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 7 | WH 06 | House No. 7 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 8 | WH 07 | House No. 38 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 9 | WH 08 | House No. 145 147 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 10 | WH 09 | House No. 185 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 11 | WH 10 | House No. 183 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 12 | WH 11 | House No. 225 227 229 231 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 2 | 6 | 26 | Medium | |
| 13 | WH 12 | House No. 241 243 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 14 | WH 13 | House No. 70 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 15 | WH 14 | Khun Pitak Raya House | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 16 | WH 15 | House No. 220 222 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 17 | WH 16 | House No. 190 192 194 196 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 18 | WH 17 | House No. 188 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 2 | 6 | 26 | Medium | |
| 19 | WH 18 | House No. 180 182 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 2 | 6 | 26 | Medium | |
| 20 | WH 19 | House No. 162 164 166 168 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 21 | WH 20 | House No. 94 96 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 22 | WH 21 | House No. 16 18 20 22 24 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 2 | 6 | 26 | Medium | |
| 23 | RH 01 | Kong Si House | 2 | 6 | 2 | 4 | 1 | 2 | 3 | 9 | 3 | 6 | 3 | 9 | 36 | High | |
| 24 | RH 02 | House No. 28 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 25 | RH 03 | White House Court | 2 | 6 | 2 | 4 | 1 | 2 | 3 | 9 | 3 | 6 | 3 | 9 | 36 | High | |
| 26 | RH 04 | Sultan's Son House | 2 | 6 | 2 | 4 | 1 | 2 | 3 | 9 | 3 | 6 | 1 | 3 | 30 | High | |
| 27 | RH 05 | House No. 47 | 2 | 6 | 2 | 4 | 1 | 2 | 3 | 9 | 3 | 6 | 3 | 9 | 36 | High | |
| 28 | RH 06 | House No. 13 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 29 | RH 07 | Jabang Tikor Palace Wall | 3 | 9 | 3 | 6 | 3 | 6 | 2 | 6 | 3 | 6 | 2 | 6 | 39 | High | |
| 30 | RH 08 | Jabang Tikor Palace | 3 | 9 | 3 | 6 | 2 | 4 | 2 | 6 | 3 | 6 | 2 | 6 | 37 | High | |
| 31 | RB 01 | Santisuk Shrine | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 32 | RB 02 | Lim Kor Niaw Shine | 3 | 9 | 3 | 6 | 3 | 6 | 3 | 9 | 3 | 6 | 3 | 9 | 45 | High | |

Table 1 The Summary of Architectural Heritage Evaluation Scores in Pattani Old Town.(continue)

| No. | Code | Building | Architectural Heritage Evaluation Scores of Each Site | | | | | | | | | | | | | Value Level | |
|-----|-------|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|----|-------------|-------------|
| | | | Criteria No. Weight Score | A | | B | | C | | D | | E | | F | | | Total Score |
| | | | | 3 | | 2 | | 2 | | 3 | | 2 | | 3 | | | |
| | | | | S | T | S | T | S | T | S | T | S | T | S | T | | |
| 33 | RB 03 | House No. 10 | 2 | 6 | 2 | 4 | 1 | 2 | 3 | 9 | 3 | 6 | 3 | 9 | 36 | High | |
| 34 | RB 04 | Pakistan Mosque | 3 | 9 | 2 | 4 | 3 | 6 | 2 | 6 | 2 | 4 | 3 | 9 | 38 | High | |
| 35 | RB 05 | Tani Norasamosorn Temple | 3 | 9 | 2 | 4 | 3 | 6 | 3 | 9 | 3 | 6 | 3 | 9 | 43 | High | |
| 36 | RB 06 | Raya Fatorni Mosque | 3 | 9 | 3 | 6 | 3 | 6 | 3 | 9 | 3 | 6 | 3 | 9 | 45 | High | |
| 37 | RB 07 | Talubo Tomb | 3 | 9 | 1 | 2 | 2 | 4 | 2 | 6 | 1 | 2 | 2 | 6 | 29 | Medium | |
| 38 | RB 08 | Central Mosque of Pattani | 3 | 9 | 3 | 6 | 3 | 6 | 3 | 9 | 3 | 6 | 3 | 9 | 45 | High | |
| 39 | SH 01 | House No. 31 33 35 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 40 | SH 02 | House No. 29 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 41 | SH 03 | House No. 1 | 2 | 6 | 3 | 6 | 2 | 4 | 3 | 9 | 3 | 6 | 3 | 9 | 40 | High | |
| 42 | SH 04 | Bird Nest House | 2 | 6 | 2 | 4 | 1 | 2 | 2 | 6 | 2 | 4 | 1 | 3 | 25 | Medium | |
| 43 | SH 05 | Thama Sala Shrine | 2 | 6 | 2 | 4 | 1 | 2 | 2 | 6 | 2 | 4 | 2 | 6 | 28 | Medium | |
| 44 | SH 06 | House No. 143 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 45 | SH 07 | House No. 149 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 46 | SH 08 | House No. 173 175 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 47 | SH 09 | House No. 177 179 181 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 48 | SH 10 | House No. 201 203 205 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 49 | SH 11 | House No. 217 219 221 223 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 50 | SH 12 | House No. 107 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 51 | SH 13 | House No. 226 228 230 232 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 52 | SH 14 | House No. 184 186 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 53 | SH 15 | House No. 176 178 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 54 | SH 16 | House No. 146 148 150 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 55 | SH 17 | House No. 11 - 25 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 56 | SH 18 | House No. 31 33 35 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 57 | SH 19 | House No. 57 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 58 | SH 20 | House No. 59 - 75 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 59 | SH 21 | House No. 79 81 83 85 87 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 60 | SH 22 | House No. 103 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 61 | SH 23 | House No. 97 99 101 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 62 | SH 24 | House No. 112 - 124 | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 29 | Medium | |
| 63 | SH 25 | House No. 150 152 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 64 | SH 26 | House No. 192 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 65 | SH 27 | House No. 121 - 129 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 66 | SH 28 | House No. 80 - 90 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 67 | SH 29 | House No. 70 72 74 76 78 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 68 | SH 30 | House No. 48 - 68 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |
| 69 | SH 31 | House No. 26 - 36 | 2 | 6 | 1 | 2 | 1 | 2 | 3 | 9 | 2 | 4 | 3 | 9 | 32 | High | |

A = The value of the historical and archeological criterion

B = The value of the age and ancientry criterion

C = The value of the buildings, places, and archeological sites condition criterion

D = The value of the architectural and artistic criterion

E = The value of the composition and image of city criterion

F = The value of the importance to society and community criterion

S means "Raw Architectural Heritage Evaluation Scores of Each Site"

T means "Weighted Evaluation Scores of Each Site"

The analysis and value evaluation of essential compositions in Pattani Old Town (69 sites) were conducted according to 6 criteria noted above. The raw scores for the individual criterion were tabulated, weighted, and then summed for each of the 69 architectural heritage sites and landmarks in Pattani Old Town (Table 1). The scores were then divided following the city's compositional potential into three levels (where, for convenience, the range of each level represented approximately one-third of the total score range): 1) the level of the architectural heritage with a high rating (the total evaluation score of between 30 – 45 points). There were 34 sites in this category, accounting for 49.3 percent of the total number of the sites; 2) the level of the architectural heritage with a medium rating (the total evaluation score of between 15 – 29 points). There were 35 sites in this category, accounting for 50.7 percent of the total number of sites; and 3) the level of the architectural heritage with a low rating (the total evaluation score of between 0 – 14 points). There were 0 sites in this category. .

In the survey of the value evaluation of the architectural heritage sites in Pattani Old Town, the old town is subdivided into three significantly valuable districts. There are tangible cultural heritage sites of distinctive architectural styles (Figure 9) dispersed according to ethnic groups and the city's construction era which influenced dissimilar architectural concepts. In this study, the important districts in Pattani Old Town can be divided into three places as follows:



Figure 8 Examples of cultural heritage sites of distinctive architectural styles.

The first district is the Chao Mae Lim Ko Niao Shrine Community. This area is the administrative center and the dominant commercial area in Pattani. Most of its population is Chinese-Thai, who earn a living by being merchants. This district covers the northern part of Pattani Old Town, from Charoen Nakhon Road to the southern part of Anoru Road, Mayo Road, Ruedee Road, and Pattani Pirom Road. There are several valuable buildings and places in the west of this area, most of which cluster along important roadsides. The valuable buildings and places are divided along the three road lines, consisting of 1) Anoru Road, which contains 17 valuable architectural heritage sites; 2) Pattani Pirom Road, which contains 25 valuable architectural heritage sites; and 3) Ruedee Road, which contains 18 valuable architectural heritage sites.

The second district is the Chabang Tiko area. Located in the southern part of Pattani Old Town, this area is the oldest administrative and economic center. This district covers some parts of Chabang Tiko Sub-district where the Raya Fatani Mosque is the center of the district. There are eight valuable buildings, places, or heritage sites in the area.

The third district is the current economic area. This area originates on the Yarang roadside, along the Pattani Central Mosque and the Municipal Market of Pattani. Most of the population is Thai Muslim. The district covers the central area of Pattani Old Town. The Pattani Central Mosque is the only valuable building, place, or heritage site in this area.

The analysis and value evaluation of essential composition of Pattani Old Town based on the scoring criteria and the importance of the weight of each factor affecting conservation was conducted by the experts, or evaluators, in this study. The total score obtained from the value evaluation can be utilized for planning and distinguishing the level of importance as well as the city's composition potential, i.e., archeological sites, buildings, and important landmarks, for appropriate conservation and development. Moreover, the results can be used as supporting data in the determination of a town area and spatial measurement to effectively preserve the architectural heritage sites in the old town.

4. Conclusion and suggestions

The identity of the Pattani Old Town composition illustrating the old town of Pattani nowadays comprises: 1) the city walls, moats, and fortresses in Chabang Tiko Sub-district, for example the remaining part the wall of Chabang Tiko Palace representing the administrative territory and historical significance of Pattani; 2) the old town, with most of the religious buildings located in Anoru Sub-district, especially on the Anoru roadside, which is the Thai-Chinese-Thai community, and the Pattani Pirom roadside, which is the commercial port community along the Pattani River; 3) the Pattani Old Town transportation network scheme consisting of a grid system with related historical road lines that illustrate the process of Pattani Old Town's development, as well as the transformation of the five road lines, including Chabang Tiko Fronted Palace Road, Anoru Road, Pattani Pirom Road, Ruedee Road, and Yarang Road; and 4) the important and valuable districts/areas of Pattani Old Town consisting of three significant districts, namely, the Hua Talat Community and its neighboring areas of Anoru, Pattani Pirom, and the Ruedee roadsides, Chabang Tiko Sub-district where the Raya Fatani Mosque is the center of the district, as well as the new economic area located along the Yarang roadside where the Pattani Central Mosque is the community center of the district.

The development of a value evaluation survey for the architectural heritage sites of Pattani Old Town is an indispensable process. According to the results of this study, Pattani Old Town covers 2.35 square kilometers, and 69 valuable architectural heritage sites were discovered. Most of them were found in the Anoru Sub-district (Figure 8), covering three significant historical roads, namely Anoru, Pattani Pirom, and the Ruedee roadsides, with a total of 60 sites. Other sites were found slightly dispersed in Chabang Tiko Sub-district. Finally, one valuable architectural heritage site was found in the new economic area on the Yarang roadside. Of all these sites, 34 architectural heritage sites (49.3 percent of the total sites) received a high architectural value rating while 35 of them (50.7 percent of the total sites) received a moderate rating. No architectural heritage sites received a low rating.

Based on the findings of the composition identification and the survey of the value evaluation of the architectural heritage sites in Pattani Old Town, it is concluded that the old town composition and the valuable architectural heritage sites with a high rating are clustered in the Anoru Sub-district, covering Hua Talat and its neighboring communities, and especially the three architectural heritage sites along the historical roadsides of Anoru Road, Pattani Pirom Road, and Ruedee Road. On these roads, various styles of architectural heritage sites, including traditional Chinese architecture, neoclassical architecture, art deco architecture, mixed Chinese-Malay architecture, and modern architecture are observable. Therefore, it is suggested that priority be given for the conservation of the tangible architectural heritage sites with a high rating within that clustered area. To determine the city planning measurement in Pattani Old Town, the process of creating a specific plan to control land use, the permission of building construction, re-establishment, and modification, as well as the

determination of architectural guidelines, are suggested. The suggested specific plan of Pattani Old Town is the area of 293,918 square meters, or 183.69 rai, covering the architectural heritage sites along the Anoru roadside, Pattani Pirom Road, Ruedee Road, and the area of Anoru District (Figure 9).

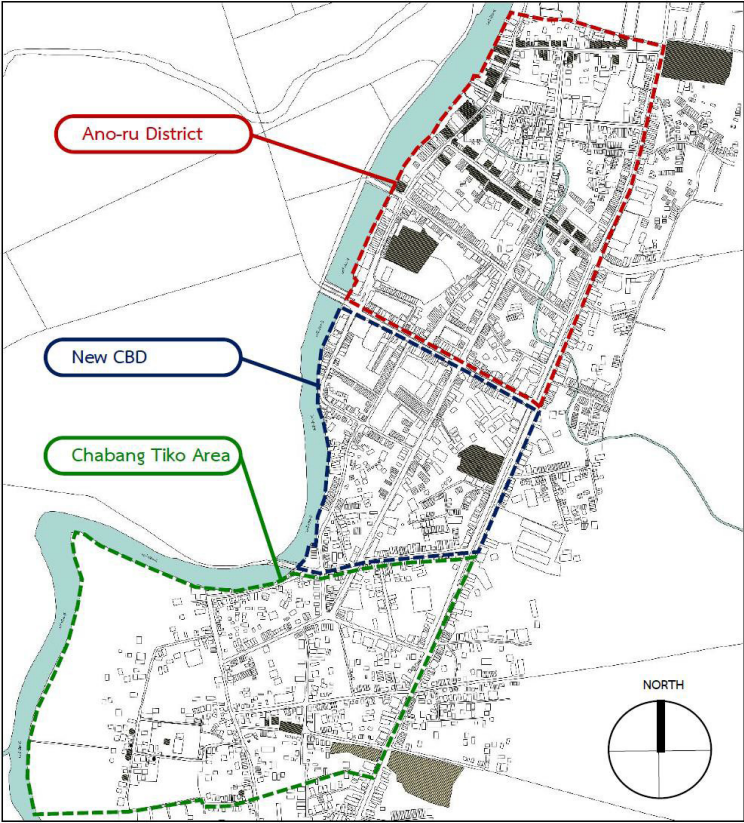


Figure 9 The location of the valuable districts in Pattani Old Town.

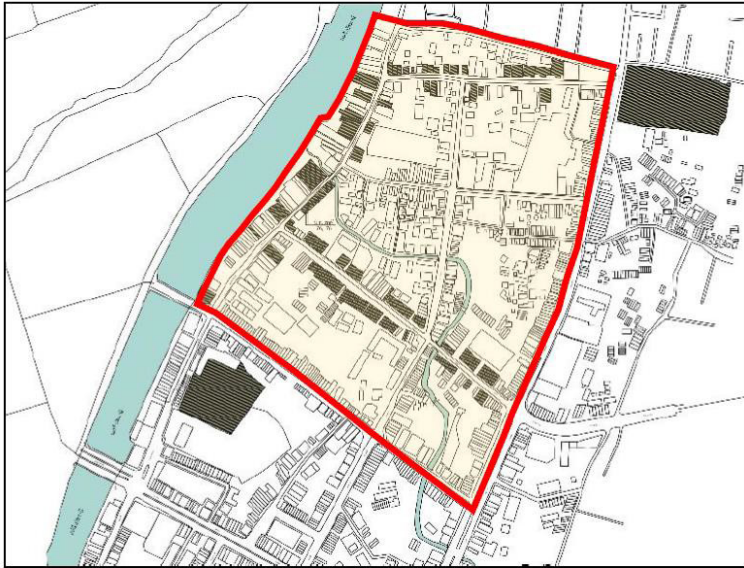


Figure 10 The location of the valuable districts in Pattani Old Town.

This research suggests determining the boundary of significant areas in Pattani Old Town that rely on city planning measurements. By following the suggestion, it is possible to prevent unfavorable land use that might occur, while the local government organization launches a city plan for designating significant landmarks appropriate to the context of the old town. The objective is to conserve the landscape of Pattani Old Town for ecotourism and natural resource conservation so that it will be a creative city in the future. Finally, this research suggests reducing the inappropriate density of land use and activities and preventing incorrect land development, as well as the excessive construction of public utilities.

Author Contributions

Conceptualization, T.L.; methodology, T.L.; software, T.L.; validation, T.L.; formal analysis, T.L.; investigation T.L.; resources, T.L.; data curation, T.L.; writing-original draft preparation, T.L.; writing-review and editing, T.L.; visualization, T.L.; supervision, T.L.; project administration, T.L.; funding acquisition, T.L. The author has read and agreed to the published version of the manuscript.

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